Technical Memorandum

Phase 3 Chemical Data Gap Investigation Sampling Results
Volume 1 of 2 - Report
Subarea 7 and Northern Buffer Zone in Area IV

Santa Susana Field Laboratory
Ventura County, California

Prepared for:

Department of Energy
4100 Guardian Street, Suite 160
Simi Valley, California 93063

Prepared by:

CDM Federal Programs Corporation (CDM Smith)

Prepared under:
US Department of Energy, EM Consolidated Business Center
Contract DE-EM0001128
CDM Task Order DE-DT0003515

October 2014

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Contract DE-EM0001128
CDM Smith Task Order DE-DT0003515

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Acronyms and Abbreviations

%D	percent difference/percent drift
%R	percent recovery
mg/L	milligram per liter
ng/kg	nanogram per kilogram
pg/L	picogram per liter
µg/L	microgram per liter
AOC	Administrative Order on Consent
bgs	below ground surface
CAS	chemical abstract number
CDD	chlorinated dibenzo-p-dioxins
CDF	chlorinated dibenzofurans
CDM Smith	CDM Federal Programs Corporation
CoC	chain of custody
DOE	Department of Energy
DPT	direct push technology
DQI	data quality indicator
DQO	data quality objective
DTSC	Department of Toxic Substances Control
DUAR	data usability assessment review
EFH	extractable fuel hydrocarbon
EMPC	estimated maximum possible concentration
EPA	U.S. Environmental Protection Agency
FSDF	Former Sodium Disposal Facility
FSDS	field sample data sheet
FSP	field sampling plan
ft	feet
FTL	field team leader
GIS	geographic information system
GRO	gasoline range organics
HSA	Historical Site Assessment
HxCDF	Hexachlorodibenzofuran
ICP	inductively coupled plasma
ISL	interim screening level
LCS	laboratory control sample
LCSD	laboratory control sample duplicate
LUT	look up table
MDL	method detection limit
MS	matrix spike
MSD	matrix spike duplicate
MWH	MWH Americas, Inc.
NBZ	Northern Buffer Zone
ND	nondetect
NDMA	n-Nitrosodimethylamine
NW	Northwest

OSWER	Office of Solid Waste and Emergency Response
PAH	polycyclic aromatic hydrocarbon
PARCCS	precision, accuracy, representativeness, comparability, completeness and sensitivity
PCB	polychlorinated biphenyl
PCT	polychlorinated triphenyl
PECDF	pentachlorodibenzofuran
PID	photoionization detector
QA	quality assurance
QAPP	quality assurance project plan
QC	quality control
RCRA	Resource Conservation and Recovery Act
RL	reporting limit
RMHF	Radioactive Material Handling Facility
RPD	relative percent difference
SDG	sample delivery group
SIM	selective ion monitoring
SOP	standard operating procedure
SOW	statement of work
SRE	Sodium Reactor Experiment
SSFL	Santa Susana Field Laboratory
SVOC	semivolatile organic compound
TCDD	2,3,7,8-tetrachlorodibenzo-p-dioxin
TEQ	toxicity equivalence
TEF	toxicity equivalence factor
TM	technical memorandum
TPH	total petroleum hydrocarbon
Master FSP	Master Field Sampling Plan

Section 1

Introduction

This Technical Memorandum (TM) presents the results of chemical analyses of surface and subsurface soil samples collected between April and December 2013 from Phase 3 soil borings within Subarea 7 and the Northern Buffer Zone (NBZ) at the Santa Susana Field Laboratory (SSFL) site in Ventura County, California. This work was performed under three planning documents:

- *Master Field Sampling Plan for Chemical Data Gap Investigation Sampling at Area IV, Santa Susana Field Laboratory, Ventura County, California* (CDM Federal Programs Corporation [CDM Smith] 2012a) (Master Field Sampling Plan [FSP])
- *Addendum No. 6 to Master Field Sampling Plan for Chemical Data Gap Investigation, Phase 3 Soil Chemical Sampling at Area IV, Santa Susana Field Laboratory, Ventura County, California, Subarea 7* (CDM Smith 2012b) (Addendum to the Master FSP)
- *Addendum No. 9 to Master Field Sampling Plan for Chemical Data Gap Investigation, Phase 3 Soil Chemical Sampling at Northern Buffer Zone, Santa Susana Field Laboratory, Ventura County, California,* (CDM Smith 2013 (Addendum to the Master FSP))

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

The Addenda to the Master FSP includes several sample locations for trenches and test pits in Subarea 7 and NBZ. All of the trenches and test pits that exist in the various Area IV subareas will be sampled at one time (during subsequent Phase 3 sampling) and the associated analytical results will be reported in a separate TM for the trenching and "go-back" sampling.

This TM also provides a description of the sampling activities and a discussion of the analytical data review findings for Phase 3 sampling in Subarea 7 and NBZ. The TM does not provide an interpretation of the results. The data provided in this TM are intended to be combined with data collected under the prior Resource Conversation and Recovery Act (RCRA) Facility Investigation and the chemical collocated sampling program (Phase 1 sampling) to support the Soil Remedial Action Implementation Plan for chemicals in soil in Area IV. The collocated sampling program was Phase 1 of the chemical investigation activities under the Administrative Order on Consent (AOC) or Remedial Action [Docket Number HSA-CO 10/11-037] between the U.S. Department of Energy (DOE) and the California Environmental Protection Agency, Department of Toxic Substances Control (DTSC) (DTSC 2010).

1.1 Objective and Basis for Data Gap Investigation Sampling in Subarea 7 and NBZ

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

The document *Subarea 7 Data Gap Analysis Technical Memorandum, Santa Susana Field Laboratory, Ventura County, California*, (SA 7 Data Gap Analysis TM) was prepared by MWH America's, Inc. (MWH) and included as an attachment to *Addendum No. 6 to Master Field Sampling Plan for Chemical Data Gap Investigation, Phase 3 Soil Chemical Sampling at Area IV, Santa Susana Field Laboratory, Ventura County, California, Subarea 7* (CDM Smith 2012b). The document *NBZ Data Gap Analysis Technical Memorandum, Santa Susana Field Laboratory, Ventura County, California*, (NBZ Data Gap Analysis TM) was also prepared by MWH and included as an attachment to *Addendum No. 9 to Master Field Sampling Plan for Chemical Data Gap Investigation, Phase 3 Soil Chemical Sampling at Area IV, Santa Susana Field Laboratory, Ventura County, California, NBZ* (CDM Smith 2012b). The data gap analysis provides the rationale for selection of each sample location and the chemical sampling rationale.

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

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

1.2 Geology

Subarea 7and NBZ of Area IV are within the Chatsworth Formation, which is composed predominantly of sandstone interbedded with siltstone and shale. The overlying native soils encountered in Subarea 7 and the NBZ range from predominantly silty sands to sandy silts at shallow depths with increasing clay content to 10 feet below ground surface (bgs). Disturbed areas in Subarea 7 and the NBZ are comprised of fill soils of unknown origin and debris such as concrete, asphalt, and wood. The contact with lithified Chatsworth Formation at many soil boring locations occurs between 2 and 10 feet bgs in Subarea 7. Contact with the Chatsworth Formation in the NBZ occurs between 0.5 and 5 feet bgs. Additional information regarding the geology in Area IV can be found in Volume I of *Group 5 – Central Portion of Areas III and IV RCRA Facility Investigation Report, Santa Susana Field Laboratory, Ventura County, California* (CH2M Hill 2008).

1.3 Technical Memorandum Organization

This TM includes the following sections:

- **Section 1 - Introduction** – Summarizes the basis and objectives of Phase 3 soil sampling in Subarea 7 and NBZ
- **Section 2 - Field Sampling and Analytical Methods** – Provides details regarding field sampling procedures and laboratory analytical methods
- **Section 3 – Subarea 7 and NBZ Phase 3 Soil Sample Analytical Results** – Provides a summary of detected analytical results for each chemical; the appendices provide the overall results

- **Section 4 - Data Usability Assessment** – Discusses the results of the data review and validation processes
- **Section 5 – References** – Identifies the documents used in this report

Section 2

Field Sampling and Analytical Methods

Ninety- two soil samples were collected from 65 Phase 3 locations in Subarea 7 between April 8 and October 2, 2013. Seventy-six samples were collected from 55 Phase 3 locations in NBZ between December 3 and December 17, 2013. The majority of the Phase 3 borings in Subarea 7 and NBZ were advanced to depths of between approximately 0.3 and 5 feet bgs, with a few locations reaching the total depth of 10 feet bgs. One location in the NBZ was inaccessible and unsafe to sample. Sample locations and depths from Subarea 7 are shown on Figure 2-1 and the sample locations in NBZ are shown on Figure 2-2. Appendix E also provides the specific boring log for each sample location.

Tables 2-1and 2-2 include the data gap rationale for sampling at each Subarea 7 and NBZ location respectively, along with the location description, sample numbers, sample type, date of sample collection, depth of boring, analyses sampled for, description of any fill materials encountered, and reasons for not sampling some of the locations proposed in the Data Gap Analysis TMs (CDM Smith 2012b and 2013). Locations not sampled are highlighted in yellow.

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

2.1 Surface Sampling

Prior to the collection of the surface soil samples in Subarea 7 and NBZ, the surface of each sample area was prepared by CDM Smith sampling personnel by removing leaves, grass, and any other surface debris. Surface samples were collected at 60 locations in Subarea 7 and at 48 locations in the NBZ from the ground surface to 6 inches bgs using a slide hammer equipped with a 2-inch diameter and 6-inch long stainless steel sample liner in accordance with SSFL SOP 2 (Surface Soil Sampling) of the Master FSP. The slide hammer sampler was pounded into the soil until the top of the sampler was flush with the ground surface and then removed from the soil. The sample sleeve was removed from the sampler and both ends capped with a Teflon® liner and a plastic cap.

Surface samples were collected at five locations in Subarea 7 and seven locations in the NBZ using the direct push technology (DPT) rig by transferring the soil from the acetate sampling sleeve into one or more glass jars, depending on the volume of sample material needed for the required analyses. This sampling procedure is the same as the subsurface soil sampling procedure. The collection of the samples directly from the acetate sleeves is a deviation from SSFL SOP 2 (Surface Soil Sampling) of the Master FSP for collection of surface soil samples (see Section 2.7).

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Legend

- Sample Location
- Area IV Subarea
- Site Area

Subarea 7 Phase 3 Sample Locations

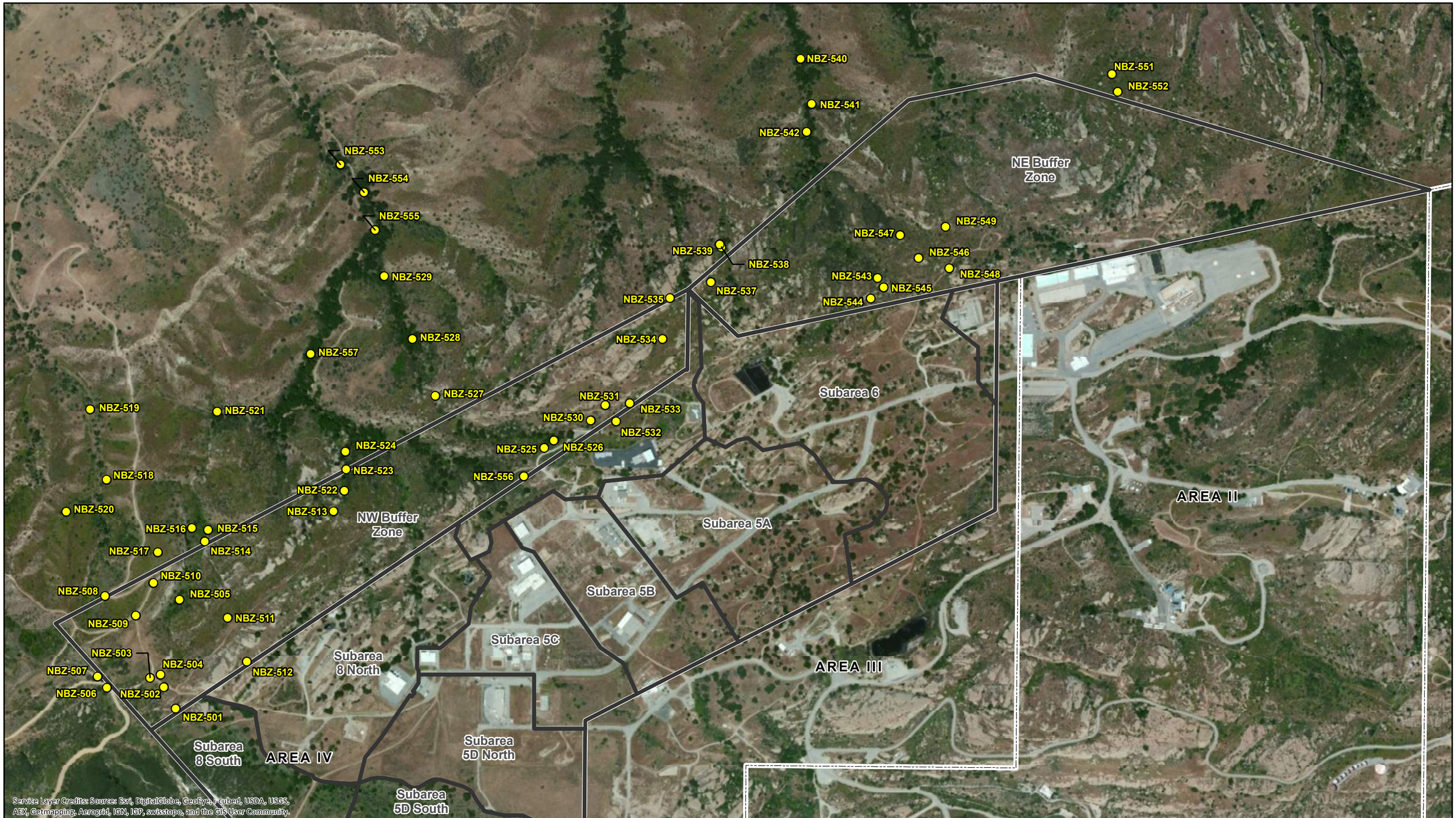
N

0 105 210 420 Feet

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

CDM Smith

C:_projects\SantaSusana\GIS\MXD\SSFL_Phase3_7_DG_Sampling_Locations_20140708.mxd 9/12/2014



Legend

- Sample Location
- Area IV Subarea
- Site Area

Northern Buffer Zone Phase 3 Sample Locations

0 312.5 625 1,250 Feet

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

CDM Smith

C:_projects\SantaSusana\GIS\MXD\SSFL_Phase3_NBZ_DG_Sampling_Locations_20140708.mxd 9/12/2014

Location ID	Location Description	Rationale / Comments	Boring Total Depth (ft bgs)	Fill Description	Sample Date	Sample Type	Sample Number	Laboratory Analyses
7_DG-500	Hillside north of B4133	Location targets surface water pathway along road downslope from elevated dioxin and TPH detections. Bedrock anticipated less than 5 feet bgs. If deeper soil encountered, collect and analyze sample just above bedrock.	2.6	None indicated. Refusal on bedrock.	04/17/13	Surface	SL-500-SA7-SB-0.0-0.5	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, TPH-EFH EPA 8015, pH EPA 9045
7_DG-501	Hillside north of B4133	Location targets surface water pathway along road downslope from elevated dioxin and TPH detections. Bedrock anticipated less than 5 feet bgs. If deeper soil encountered, collect and analyze sample just above bedrock.	1	None indicated. Refusal on bedrock.	04/17/13	Surface	SL-501-SA7-SB-0.0-0.5	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, TPH-EFH EPA 8015, pH EPA 9045
7_DG-502	Hillside northwest of B4133	Location targets area of cleared vegetation observed in aerial photographs during EPA HSA; also targets surface water pathway/road downslope of elevated dioxin and TPH detects southwest of B4686 (SRE Temporary Waste Storage Area). Shallow bedrock anticipated. If deeper soils are present collect and analyze sample just above bedrock.	0.7	None indicated. Refusal on bedrock.	04/17/13	Surface	SL-502-SA7-SB-0.0-0.5	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, TPH-EFH EPA 8015, pH EPA 9045
7_DG-503	Hillside north of B4133	Stepout for dioxins and pesticides to the southeast; also targets magnetometer anomaly. Shallow bedrock anticipated (less than 5 feet bgs).	1.2	None indicated. Refusal on bedrock.	04/22/13	Surface	SL-503-SA7-SB-0.0-0.5	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, Pesticides EPA 8081, TPH-EFH EPA 8015, pH EPA 9045
7_DG-504	Northwest of B4133	Stepout for PCBs, dioxins and pesticides detected to the east. Shallow bedrock.	5	None indicated. Refusal on bedrock.	04/22/13	Surface	SL-504-SA7-SB-0.0-0.5	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, Pesticides EPA 8081, TPH-EFH EPA 8015, pH EPA 9045
					04/22/13	Subsurface	SL-504-SA7-SB-4.0-5.0	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, Pesticides EPA 8081, TPH-EFH EPA 8015, pH EPA 9045, TPH-GRO EPA 8015
7_DG-505	Northwest of B4133	Stepout for TPH detect to the south; also targets area of cleared vegetation observed in aerial photographs during EPA HSA. Shallow refusal anticipated.	2.8	None indicated. Refusal on bedrock.	04/17/13	Surface	SL-505-SA7-SB-0.0-0.5	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, TPH-EFH EPA 8015, pH EPA 9045
7_DG-506	Northeast of B4021 Leach Field	Stepout for elevated TPH to the northwest and east. Bedrock anticipated less than 5 feet bgs.	0.7	None indicated. Refusal on bedrock.	04/25/13	Surface	SL-506-SA7-SB-0.0-0.5	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, TPH-EFH EPA 8015, pH EPA 9045
7_DG-507	Northeast of B4021 Leach Field	Stepout in surface water pathway downslope from TPH and dioxins. Shallow bedrock anticipated (approximately 5 feet bgs); however potential for deeper soils due to sediment deposition/collection. If deeper soils encountered, collect and analyze sample just above bedrock.	0.9	None indicated. Refusal on bedrock.	04/24/13	Surface	SL-507-SA7-SB-0.0-0.5	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, TPH-EFH EPA 8015, pH EPA 9045
7_DG-508	Hillslope west of B4133	Stepout for upslope dioxins and TPH. Shallow bedrock anticipated (less than 5 feet bgs).	1	Fill described as poorly graded sand with metal. Refusal on bedrock.	04/25/13	Surface	SL-508-SA7-SB-0.0-0.5	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, TPH-EFH EPA 8015, pH EPA 9045
7_DG-509	Hillslope west of B4133	Stepout in surface water pathway downslope from PAHs, dioxins, metals, and TPH. Shallow bedrock refusal anticipated.	1.4	None indicated. Refusal on bedrock.	04/25/13	Surface	SL-509-SA7-SB-0.0-0.5	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, TPH-EFH EPA 8015, pH EPA 9045

Table 2-1
Soil Samples Designated to be Collected from Subarea 7
Phase 3

Location ID	Location Description	Rationale / Comments	Boring Total Depth (ft bgs)	Fill Description	Sample Date	Sample Type	Sample Number	Laboratory Analyses
7_DG-510	Hillslope west of B4133	Stepout in surface water pathway downslope of PAHs, PCBs, TPH, dioxins, metals, and pesticides; defines extent of Area West of B4133 Clearly Contaminated Area.	1.2	None indicated. Refusal on bedrock.	04/22/13	Surface	SL-510-SA7-SB-0.0-0.5	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, Pesticides EPA 8081, TPH-EFH EPA 8015, pH EPA 9045
					04/22/13	Surface (Duplicate)	SL-810-SA7-SB-0.0-0.5	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, Pesticides EPA 8081, TPH-EFH EPA 8015, pH EPA 9045
7_DG-511	Hillslope west of B4133	Stepout to delineate downslope extent of clearly contaminated area (PAHs, PCBs, dioxins, TPH, and pesticides); also stepout for TPH, dioxins, and metals to the west.	1.4	None indicated. Refusal on bedrock.	04/19/13	Surface	SL-511-SA7-SB-0.0-0.5	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, Pesticides EPA 8081, TPH-EFH EPA 8015, pH EPA 9045
7_DG-512	Northeast of B4021 Leach Field	Stepout in surface water pathway downslope of TPH detects. Shallow bedrock anticipated (approximately 5 feet bgs); however potential for deeper soils due to sediment deposition/collection. If deeper soils encountered, collect and analyze sample just above bedrock.	3.7	None indicated. Refusal on bedrock.	04/23/13	Surface	SL-512-SA7-SB-0.0-0.5	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, TPH-EFH EPA 8015, pH EPA 9045
7_DG-513	Hillslope east of B4133 (above SRE asphalt-lined ditch)	Stepout for PCBs, dioxins, and TPH on hillslope east of B4133 area. Location delineates potential migration downslope into asphalt-lined ditch surrounding SRE. Analyze pesticides since detected in drainage. Shallow bedrock refusal anticipated. If deeper soils are present, collect and analyze sample just above bedrock.	1.7	None indicated. Refusal on bedrock.	06/04/13	Surface	SL-513-SA7-SB-0.0-0.5	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, Pesticides EPA 8081, TPH-EFH EPA 8015, pH EPA 9045
					06/04/13	Surface (Duplicate)	SL-913-SA7-SB-0.0-0.5	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, Pesticides EPA 8081, TPH-EFH EPA 8015, pH EPA 9045
7_DG-514	Southeast of B4133	Stepout for PCBs, TPH, and dioxins. Shallow bedrock refusal anticipated. If deeper soils are present, collect and analyze sample just above bedrock.	1.9	None indicated. Refusal on bedrock.	06/06/13	Surface	SL-514-SA7-SB-0.0-0.5	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, TPH-EFH EPA 8015, pH EPA 9045
7_DG-515	Northeast of Interim Storage Facility (ISF)	Stepout downslope from dioxin and TPH detections at the ISF. Shallow bedrock refusal anticipated (less than 5 feet bgs). If deeper soils are present, collect and analyze sample just above bedrock.	0.3	None indicated. Refusal on bedrock.	06/06/13	Surface	SL-515-SA7-SB-0.0-0.5	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, Pesticides EPA 8081, TPH-EFH EPA 8015, pH EPA 9045
7_DG-516	Southwest corner of B4133	Stepout upslope of PAHs, PCBs, and dioxins, and downslope from TPH detections in B4133 operational area.	0.5	No fill in soil above concrete at 0.5 ft bgs. Boring ceased due to suspected concrete vault or pipe.	06/04/13	Surface	SL-516-SA7-SB-0.0-0.5	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, TPH-EFH EPA 8015, pH EPA 9045
7_DG-517	Downslope of ISF	Stepout from dioxins to the west. Bedrock anticipated at approximately 5 feet bgs. If deeper soil is present, collect and analyze sample just above bedrock.	2.9	None indicated. Bedrock at 0.5 ft bgs Refusal on bedrock.	04/22/13	Surface	SL-517-SA7-SB-0.0-0.5	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, TPH-EFH EPA 8015, pH EPA 9045
7_DG-518	West of B4133	Stepout for PAHs, PCBs, dioxins, metals and TPH; also targets geophysical anomaly. Shallow bedrock refusal anticipated. If deeper soil is present, collect and analyze sample just above bedrock.	0.6	None indicated. Refusal on bedrock.	04/19/13	Surface	SL-518-SA7-SB-0.0-0.5	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, TPH-EFH EPA 8015, pH EPA 9045

Location ID	Location Description	Rationale / Comments	Boring Total Depth (ft bgs)	Fill Description	Sample Date	Sample Type	Sample Number	Laboratory Analyses
7_DG-519	West of B4133	Location targets surface water pathway downslope from B4133 area. Shallow bedrock observed in the area (less than 5 feet bgs);	2.8	None indicated. Refusal on bedrock.	04/25/13	Surface	SL-519-SA7-SB-0.0-0.5	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, TPH-EFH EPA 8015, pH EPA 9045
					04/25/13	Surface (Duplicate)	SL-819-SA7-SB-0.0-0.5	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, TPH-EFH EPA 8015, pH EPA 9045
					04/25/13	Subsurface	SL-519-SA7-SB-2.0-3.0	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, TPH-EFH EPA 8015, pH EPA 9045
7_DG-520	Hillslope southwest of B4133	Stepout in surface water pathway downslope from dioxins and TPH. Bedrock anticipated at less than 5 feet bgs.	3.1	None indicated. Refusal on bedrock.	04/19/13	Surface	SL-520-SA7-SB-0.0-0.5	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, TPH-EFH EPA 8015, pH EPA 9045
7_DG-521	West of ISF	Stepout for PCBs, dioxins, TPH, and pesticides. Bedrock anticipated at approximately 5 feet bgs. If deeper soil is present, collect and analyze deeper sample just above bedrock.	1.5	None indicated. Refusal on bedrock.	04/15/13	Surface	SL-521-SA7-SB-0.0-0.5	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, Pesticides EPA 8081, TPH-EFH EPA 8015, pH EPA 9045
7_DG-522	East of B4044	Location targets surface water pathway upslope from elevated PAHs, PCBs, dioxins, TPH, and pesticides. Shallow bedrock refusal anticipated.	2.7	None indicated. Refusal on bedrock.	04/15/13	Surface	SL-522-SA7-SB-0.0-0.5	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, Pesticides EPA 8081, TPH-EFH EPA 8015, pH EPA 9045
7_DG-524	Paved road entering RMHF	Location targets entrance to RMHF and addresses potential storage (historical photograph provided by public stakeholder showed storage/staging in area). Shallow bedrock anticipated (less than 5 feet bgs).	2.2	None indicated. Refusal on bedrock.	06/04/13	Surface	SL-524-SA7-SB-0.0-0.5	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, TPH-EFH EPA 8015, pH EPA 9045
					06/04/13	Subsurface	SL-524-SA7-SB-1.0-2.0	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, TPH-EFH EPA 8015, pH EPA 9045, TPH-GRO EPA 8015
					06/04/13	Subsurface (Duplicate)	SL-924-SA7-SB-1.0-2.0	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, TPH-EFH EPA 8015, pH EPA 9045, TPH-GRO EPA 8015

Table 2-1
Soil Samples Designated to be Collected from Subarea 7
Phase 3

Location ID	Location Description	Rationale / Comments	Boring Total Depth (ft bgs)	Fill Description	Sample Date	Sample Type	Sample Number	Laboratory Analyses
7_DG-525	Southeast of the B4021 Leach Field	Stepout downslope of PAHs, dioxins, and TPH in the RMHF asphalt swale (RMHF Northern Fenceline Clearly Contaminated Area). Bedrock anticipated less than 5 feet bgs. If deep soil encountered, collect and analyze sample just above bedrock to assess potential migration from swale.	10	None indicated. Bedrock at 7.5 ft bgs. Refusal on bedrock.	04/23/13	Surface	SL-525-SA7-SB-0.0-0.5	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, TPH-EFH EPA 8015, pH EPA 9045
					06/03/13	Subsurface	SL-525-SA7-SB-4.0-5.0	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, TPH-EFH EPA 8015, pH EPA 9045, TPH-GRO EPA 8015
					04/23/13	Subsurface	SL-525-SA7-SB-6.5-7.5	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, TPH-EFH EPA 8015, pH EPA 9045
					06/03/13	Subsurface	SL-525-SA7-SB-9.5-10.5	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, TPH-EFH EPA 8015, pH EPA 9045, TPH-GRO EPA 8015
7_DG-526	South of the B4021 Leach Field	Stepout downslope of PAHs, dioxins, and TPH in the RMHF asphalt swale (RMHF Northern Fenceline Clearly Contaminated Area). Bedrock anticipated less than 5 feet bgs. If deep soil encountered, collect and analyze sample just above bedrock to assess potential migration from swale.	10	None indicated. Bedrock at 4.5 ft bgs. Refusal on bedrock.	04/23/13	Surface	SL-526-SA7-SB-0.0-0.5	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, TPH-EFH EPA 8015, pH EPA 9045
					04/23/13	Subsurface	SL-526-SA7-SB-3.5-4.5	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, TPH-EFH EPA 8015, pH EPA 9045, TPH-GRO EPA 8015
					06/03/13	Subsurface	SL-526-SA7-SB-9.0-10.0	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, TPH-EFH EPA 8015, pH EPA 9045, TPH-GRO EPA 8015
7_DG-527	Northwest of the B4021 Leach Field	Stepout downslope of TPH at the leach field excavation area. Shallow bedrock anticipated. If deep soil encountered, collect and analyze sample just above bedrock.	3.7	None indicated. Refusal on bedrock.	04/24/13	Surface	SL-527-SA7-SB-0.0-0.5	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, TPH-EFH EPA 8015, pH EPA 9045
					04/24/13	Subsurface	SL-527-SA7-SB-2.5-3.5	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, TPH-EFH EPA 8015, pH EPA 9045, TPH-GRO EPA 8015
7_DG-528	North of drainage and RMHF hillslope	Stepout upslope of dioxins in drainage; also addresses area downslope of TPH detect on hillside. Shallow bedrock anticipated (5 feet bgs or less). If deeper soil is present, collect and analyze sample just above bedrock.	2	None indicated. Refusal on bedrock.	04/24/13	Surface	SL-528-SA7-SB-0.0-0.5	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, TPH-EFH EPA 8015, pH EPA 9045
7_DG-529	Hillslope north of B4664	Stepout for elevated TPH; location also addresses potential surface water migration pathway from B4021 leach field and the debris area north of B4664. Shallow bedrock anticipated. If deep soil encountered, collect and analyze sample just above bedrock.	2.1	None indicated. Refusal on bedrock.	04/24/13	Surface	SL-529-SA7-SB-0.0-0.5	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, TPH-EFH EPA 8015, pH EPA 9045

Location ID	Location Description	Rationale / Comments	Boring Total Depth (ft bgs)	Fill Description	Sample Date	Sample Type	Sample Number	Laboratory Analyses
7_DG-530	Hillslope north of RMHF	Stepout downslope from elevated detects for PAHs, TPH, and dioxins in the asphalt swale (RMHF Northern Fenceline Clearly Contaminated Area) and TPH in the debris area north of B4664 to the east. Shallow bedrock anticipated (less than 5 feet bgs). If deep soil encountered, collect and analyze sample just above bedrock to assess potential migration from swale.	1.9	None indicated. Refusal on bedrock.	04/24/13	Surface	SL-530-SA7-SB-0.0-0.5	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, TPH-EFH EPA 8015, pH EPA 9045
7_DG-531	Hillslope north of RMHF	Stepout for elevated PAHs, TPH, and dioxins downslope of the RMHF asphalt swale, and Northern Fenceline Clearly Contaminated Area. Shallow bedrock anticipated (5 feet bgs or less). If deeper soil is present, collect and analyze sample just above bedrock to assess potential migration from swale.	0.7	None indicated. Refusal on bedrock.	04/18/13	Surface	SL-531-SA7-SB-0.0-0.5	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, TPH-EFH EPA 8015, pH EPA 9045
7_DG-532	Hillslope north of RMHF	Stepout for elevated PAHs, dioxins, metals and TPH in the asphalt swale (RMHF Northern Fenceline Clearly Contaminated Area) and TPH in the debris area north of B4075 to the west; also characterizes area downslope of the RMHF asphalt swale (RMHF Northern Fenceline Clearly Contaminated Area). Shallow bedrock anticipated (less than 5 feet bgs). If deep soil encountered, collect and analyze sample just above bedrock to assess potential migration from swale.	4	None indicated. Refusal on bedrock.	04/18/13	Surface	SL-532-SA7-SB-0.0-0.5	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, TPH-EFH EPA 8015, pH EPA 9045
					04/18/13	Subsurface	SL-532-SA7-SB-3.0-4.0	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, TPH-EFH EPA 8015, pH EPA 9045, TPH-GRO EPA 8015
7_DG-533	Hillslope north of B4075	Stepout downslope of TPH in the debris area north of B4075; also characterizes area downslope from asphalt swale and RMHF Northern Fenceline Clearly Contaminated Area. Shallow bedrock anticipated. If deep soil encountered, collect and analyze sample just above bedrock to assess potential migration from swale.	3	None indicated. Refusal on bedrock.	04/18/13	Surface	SL-533-SA7-SB-0.0-0.5	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, TPH-EFH EPA 8015, pH EPA 9045
					06/03/13	Subsurface	SL-533-SA7-SB-2.5-3.5	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, TPH-EFH EPA 8015, pH EPA 9045, TPH-GRO EPA 8015
7_DG-534	Hillslope northwest of RMHF	Stepout for elevated TPH in the debris area north of B4075; also characterizes area downslope from RMHF swale and Northern Fenceline Clearly Contaminated Area. Shallow bedrock anticipated (5 feet bgs or less). If deeper soil is present, collect and analyze sample just above bedrock to assess potential migration from swale.	6.8	None indicated. Refusal on bedrock.	04/12/13	Surface	SL-534-SA7-SB-0.0-0.5	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, TPH-EFH EPA 8015, pH EPA 9045
					04/15/13	Subsurface	SL-534-SA7-SB-5.5-6.5	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, TPH-EFH EPA 8015, pH EPA 9045, TPH-GRO EPA 8015
7_DG-535	Northeast of catch basin	Location targets surface water pathway from catch basin along road and addresses potential migration of PAHs, TPH, and dioxins detected upgradient. Bedrock anticipated less than 5 feet bgs. If deep soil encountered, collect and analyze just above bedrock.	10	None indicated. Refusal on bedrock.	04/12/13	Surface	SL-535-SA7-SB-0.0-0.5	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, TPH-EFH EPA 8015, pH EPA 9045
					04/12/13	Subsurface	SL-535-SA7-SB-4.0-5.0	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, TPH-EFH EPA 8015, pH EPA 9045, TPH-GRO EPA 8015
					04/12/13	Subsurface	SL-535-SA7-SB-9.0-10.0	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, TPH-EFH EPA 8015, pH EPA 9045, TPH-GRO EPA 8015

Table 2-1
Soil Samples Designated to be Collected from Subarea 7
Phase 3

Location ID	Location Description	Rationale / Comments	Boring Total Depth (ft bgs)	Fill Description	Sample Date	Sample Type	Sample Number	Laboratory Analyses
7_DG-536	Northeast of RMHF Catch Basin	Stepout for elevated PAHs, TPH and dioxins in RMHF Catch Basin Clearly Contaminated Area; location positioned in surface water pathway to addresses potential surface water migration from the catch basin. Shallow bedrock anticipated (5 feet bgs or less). If deeper soil is present, collect and analyze sample just above bedrock.	7.1	None indicated. Refusal on bedrock.	04/11/13	Surface	SL-536-SA7-SB-0.0-0.5	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, TPH-EFH EPA 8015, pH EPA 9045
					04/12/13	Subsurface	SL-536-SA7-SB-3.0-4.0	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, TPH-EFH EPA 8015, pH EPA 9045, TPH-GRO EPA 8015
					04/12/13	Subsurface (Duplicate)	SL-836-SA7-SB-3.0-4.0	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, TPH-EFH EPA 8015, pH EPA 9045, TPH-GRO EPA 8015
7_DG-537	Hillslope northwest of RMHF	Stepout for elevated PAHs, dioxins, metals, and TPH downslope of the RMHF asphalt swale, and Northern Fenceline Clearly Contaminated Area. Shallow bedrock anticipated (5 feet bgs or less). If deeper soil is present, collect and analyze sample just above bedrock to assess potential migration from swale.	1.9	None indicated. Refusal on bedrock.	04/15/13	Surface	SL-537-SA7-SB-0.0-0.5	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, TPH-EFH EPA 8015, pH EPA 9045
7_DG-538	Northeast of RMHF Catch Basin	Stepout for elevated PAHs, TPH and dioxins and defines northwest extent of RMHF Catch Basin Clearly Contaminated Area. Shallow bedrock anticipated (less than 5 feet bgs).	2.8	None indicated. Refusal on bedrock.	04/15/13	Surface	SL-538-SA7-SB-0.0-0.5	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, TPH-EFH EPA 8015, pH EPA 9045
7_DG-539	North of B4028	Stepout for TPH and metals at B4028 and provides representative data downslope of the RMHF southern slope. If deeper soils encountered, collect 10-foot sample and analyze to assess chemical migration due to surface water runoff from RMHF asphalt area.	2.5	None indicated. Refusal on bedrock.	04/08/13	Surface	SL-539-SA7-SB-0.0-0.5	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, TPH-EFH EPA 8015, pH EPA 9045
7_DG-540	B4811	Location targets the previously sampled cooling tower formerly located at B4811. Analyze for corrosion inhibitors to characterize former cooling tower; dioxins and PCB analyses added to complete general characterization of the area.	1.4	None indicated. Refusal on bedrock.	04/09/13	Surface	SL-540-SA7-SB-0.0-0.5	Dioxins EPA 1613, Formaldehyde EPA 8315, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, Hexavalent Chromium EPA 7196/7199, TPH-EFH EPA 8015
					04/09/13	Surface (Duplicate)	SL-840-SA7-SB-0.0-0.5	Dioxins EPA 1613, Formaldehyde EPA 8315, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, Hexavalent Chromium EPA 7196/7199, TPH-EFH EPA 8015
7_DG-541	South of RMHF Catch Basin	Location targets the pipeline leading from the RMHF Catch Basin to the discharge inlet to the south and also serves as a stepout for dioxins and metals to the north. Shallow bedrock anticipated (less than 5 feet bgs). If deep soil encountered, collect and analyze sample just above bedrock.	2.9	0-3.0 ft bgs: fill described as igneous/metamorphic and sandstone gravel. Refusal on bedrock.	10/02/13	Surface	SL-541-SA7-SB-0.0-0.5	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, TPH-EFH EPA 8015, pH EPA 9045
					10/02/13	Subsurface	SL-541-SA7-SB-2.0-3.0	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, pH EPA 9045, TPH-EFH EPA 8015, TPH-GRO EPA 8015
7_DG-542	Southwest of B4028	Stepout for TPH and metals at B4028 to the northeast, PAH to the east, and dioxins and metals to the northwest; location is in area that is downslope of B4028 area. Shallow bedrock anticipated (less than 5 feet bgs).	2.5	None indicated. Refusal on bedrock.	04/09/13	Surface	SL-542-SA7-SB-0.0-0.5	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, TPH-EFH EPA 8015, pH EPA 9045

Location ID	Location Description	Rationale / Comments	Boring Total Depth (ft bgs)	Fill Description	Sample Date	Sample Type	Sample Number	Laboratory Analyses
7_DG-543A	Former substation southeast of B4028	Previous sample was a composite of four discrete samples with ND result. Transformers in Area IV with previous ND results are being resampled with discrete samples. Recollect samples at four former discrete locations and analyze each sample for PCBs.	0.5	None indicated. Refusal on bedrock.	04/25/13	Surface	SL-543A-SA7-SB-0.0-0.5	PCBs/PCTs EPA 8082
7_DG-543B	Former substation southeast of B4028	Previous sample was a composite of four discrete samples with ND result. Transformers in Area IV with previous ND results are being resampled with discrete samples. Recollect samples at four former discrete locations and analyze each sample for PCBs.	0.5	None indicated. Refusal on bedrock.	04/25/13	Surface	SL-543B-SA7-SB-0.0-0.5	PCBs/PCTs EPA 8082
7_DG-543C	Former substation southeast of B4028	Previous sample was a composite of four discrete samples with ND result. Transformers in Area IV with previous ND results are being resampled with discrete samples. Recollect samples at four former discrete locations and analyze each sample for PCBs.	0.5	None indicated. Refusal on bedrock.	04/25/13	Surface	SL-543C-SA7-SB-0.0-0.5	PCBs/PCTs EPA 8082
7_DG-543D	Former substation southeast of B4028	Previous sample was a composite of four discrete samples with ND result. Transformers in Area IV with previous ND results are being resampled with discrete samples. Recollect samples at four former discrete locations and analyze each sample for PCBs.	0.5	None indicated. Refusal on bedrock.	04/25/13	Surface	SL-543D-SA7-SB-0.0-0.5	PCBs/PCTs EPA 8082
7_DG-544	South of B4028	Stepout for TPH and metals at B4028 to the north, and PAH to the northwest and east. Shallow bedrock anticipated.	2.4	None indicated. Refusal on bedrock.	04/09/13	Surface	SL-544-SA7-SB-0.0-0.5	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, TPH-EFH EPA 8015, pH EPA 9045
7_DG-545A	Former transformer pole southwest of RMHF	Previous sample was a composite of four discrete samples with ND result. Transformers in Area IV with previous ND results are being resampled with discrete samples. Recollect samples at former discrete locations and analyze each sample for PCBs; hold deep samples pending shallow results. Note: The fourth discrete location is being targeted by proposed data gap sample 5A_DG-502 which includes PCB analysis; therefore only three discrete samples are being proposed for reanalysis as part of this SAP.	0.5	None indicated. Refusal on bedrock.	06/03/13	Surface	SL-545A-SA7-SB-0.0-0.5	PCBs/PCTs EPA 8082
7_DG-545B	Former transformer pole southwest of RMHF		0.5	None indicated. Refusal on bedrock.	06/03/13	Surface	SL-545B-SA7-SB-0.0-0.5	PCBs/PCTs EPA 8082
7_DG-545C	Former transformer pole southwest of RMHF		0.5	None indicated. Refusal on bedrock.	06/03/13	Surface	SL-545C-SA7-SB-0.0-0.5	PCBs/PCTs EPA 8082
7_DG-546	Southwest of RMHF southern slope Clearly Contaminated Area	Location completes analytical suite for dioxins at previous location RMBS0149.	1.1	Trace asphalt from 0.0 to 0.5-ft bgs. Broken asphalt also observed on slope around borehole area. Appears to have been used for stabilization/erosion control. Refusal on bedrock.	04/09/13	Surface	SL-546-SA7-SB-0.0-0.5	Dioxins EPA 1613
7_DG-547	South of the RMHF southern fenceline	Defines extent of RMHF Southern Fenceline Clearly Contaminated Area (PAH, PCBs, dioxins, metals, and TPH).	1.3	None indicated. Refusal on bedrock.	04/09/13	Surface	SL-547-SA7-SB-0.0-0.5	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, TPH-EFH EPA 8015, pH EPA 9045

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Soil Samples Designated to be Collected from Subarea 7
Phase 3

Location ID	Location Description	Rationale / Comments	Boring Total Depth (ft bgs)	Fill Description	Sample Date	Sample Type	Sample Number	Laboratory Analyses
7_DG-548	North of RMHF Catch Basin	Stepout for elevated PAHs, TPH and dioxins and defines northern extent of RMHF Catch Basin Clearly Contaminated Area. Shallow bedrock anticipated (less than 5 feet bgs). If deep soil encountered, collect and analyze sample just above bedrock.	1.1	None indicated. Refusal on bedrock.	04/10/13	Surface	SL-548-SA7-SB-0.0-0.5	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, TPH-EFH EPA 8015, pH EPA 9045
7_DG-549	Northwest of RMHF Catch Basin	Stepout for elevated PAHs, TPH, metals, and dioxins and defines northwest extent of RMHF Catch Basin Clearly Contaminated Area. Shallow bedrock anticipated (less than 5 feet bgs). If deep soil encountered, collect and analyze sample just above bedrock.	1.8	None indicated. Refusal on bedrock.	04/10/13	Surface	SL-549-SA7-SB-0.0-0.5	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, TPH-EFH EPA 8015, pH EPA 9045
7_DG-551	Southwest of RMHF Catch Basin	Stepout for elevated PAHs, TPH, and dioxins to the northeast and provides delineation of the western extent of the RMHF Catch Basin Clearly Contaminated Area. Shallow bedrock refusal anticipated (5 feet bgs or less). If deeper soils are present, collect and analyze sample just above bedrock.	3	None indicated. Refusal on bedrock.	04/10/13	Surface	SL-551-SA7-SB-0.0-0.5	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, TPH-EFH EPA 8015, pH EPA 9045
					04/10/13	Subsurface	SL-551-SA7-SB-2.0-3.0	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, TPH-EFH EPA 8015, pH EPA 9045, TPH-GRO EPA 8015
7_DG-552	West of RMHF Catch Basin	Stepout for dioxins to the northwest; location also targets historical dirt road. Bedrock anticipated less than 5 feet bgs. If deep soil encountered, collect and analyze sample just above bedrock.	0.5	None indicated. Refusal on bedrock.	04/10/13	Surface	SL-552-SA7-SB-0.0-0.5	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, TPH-EFH EPA 8015, pH EPA 9045
7_DG-553	West of RMHF Catch Basin	Stepout for metals, dioxins, and TPH. PAHs and PCBs added to complete the standard analytical suite since location adjacent to historical dirt road. Bedrock anticipated less than 5 feet bgs.	0.5	None indicated. Refusal on bedrock.	04/11/13	Surface	SL-553-SA7-SB-0.0-0.5	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, TPH-EFH EPA 8015, pH EPA 9045
7_DG-554	Eastern portion of area downslope of SNAP operations area	Stepout for PAHs, dioxins, and TPH detected along the fenceline north of the SNAP operations area. Locations assess potential contaminant migration from SNAP operational area. Shallow bedrock anticipated (less than 5 feet).	2.2	None indicated. Refusal on bedrock.	04/11/13	Surface	SL-554-SA7-SB-0.0-0.5	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, TPH-EFH EPA 8015, pH EPA 9045
7_DG-555	Downslope of SNAP operations area at B4013	Stepout for PAHs, dioxins, and TPH detected along the fenceline north of the SNAP operations area. Locations assess potential contaminant migration from SNAP operational area. Shallow bedrock anticipated (less than 5 feet).	2.1	None indicated. Refusal on bedrock.	04/11/13	Surface	SL-555-SA7-SB-0.0-0.5	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, TPH-EFH EPA 8015, pH EPA 9045
7_DG-557	Central portion of area downslope of SNAP operations area	Location targets surface water pathway downslope of SNAP operational area. Shallow bedrock anticipated.	4.2	None indicated. Refusal on bedrock.	04/17/13	Surface	SL-557-SA7-SB-0.0-0.5	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, TPH-EFH EPA 8015, pH EPA 9045
7_DG-558	Central portion of area downslope of SNAP operations area	Location targets surface water pathway downslope of SNAP operational area. Shallow bedrock anticipated.	4.3	None indicated. Refusal on bedrock.	04/16/13	Surface	SL-558-SA7-SB-0.0-0.5	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, TPH-EFH EPA 8015, pH EPA 9045
					04/17/13	Subsurface	SL-558-SA7-SB-3.0-4.0	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, TPH-EFH EPA 8015, pH EPA 9045, TPH-GRO EPA 8015

Location ID	Location Description	Rationale / Comments	Boring Total Depth (ft bgs)	Fill Description	Sample Date	Sample Type	Sample Number	Laboratory Analyses
7_DG-559	Downslope of SNAP operations area at B4019	Stepout for PAHs, PCBs, dioxins, and TPH detected along the fenceline north of the SNAP operations area. Locations assess potential contaminant migration from SNAP operational area. Shallow bedrock anticipated (less than 5 feet).	2.8	None indicated. Refusal on bedrock.	04/16/13	Surface	SL-559-SA7-SB-0.0-0.5	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, TPH-EFH EPA 8015, pH EPA 9045
					04/16/13	Subsurface	SL-559-SA7-SB-2.0-3.0	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, TPH-EFH EPA 8015, pH EPA 9045, TPH-GRO EPA 8015
7_DG-560	Downslope of SNAP operations area at B4059	Stepout for PAHs, dioxins, and TPH detected along the fenceline north of the SNAP operations area. Locations assess potential contaminant migration from SNAP operational area. Shallow bedrock anticipated (less than 5 feet).	4.3	None indicated. Refusal on bedrock.	04/16/13	Surface	SL-560-SA7-SB-0.0-0.5	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, TPH-EFH EPA 8015, pH EPA 9045
					04/16/13	Subsurface	SL-560-SA7-SB-3.0-4.0	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, TPH-EFH EPA 8015, pH EPA 9045, TPH-GRO EPA 8015
7_DG-561	Western portion of area downslope of SNAP operations area	Location targets surface water pathway downslope of SNAP operational area. Shallow bedrock anticipated.	1.9	None indicated. Refusal on bedrock.	04/16/13	Surface	SL-561-SA7-SB-0.0-0.5	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, TPH-EFH EPA 8015, pH EPA 9045
7_DG-562	Hill Slope Southeast of B4028	Location targets area adjacent to sewer manhole. Shallow soil anticipated (5 feet or less bgs).	2.8	None indicated. Refusal on bedrock.	04/26/13	Surface	SL-562-SA7-SB-0.0-0.5	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, TPH-EFH EPA 8015, pH EPA 9045
					04/26/13	Subsurface	SL-562-SA7-SB-2.0-3.0	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, TPH-EFH EPA 8015, pH EPA 9045, TPH-GRO EPA 8015

Notes & Abbreviations:
Note: The sample number for a "duplicate sample" was increased by 300 (e.g. SB-530 and SB-830)
bgs = below ground surface
EFH = extractable fuel hydrocarbons
EPA = Environmental Protection Agency
ft = feet
GRO = gasoline range organics
HSA = Historical Site Assessment
ID = identifier
ISF = interim storage facility
ND = nondetect
PAH = polyaromatic hydrocarbon
PCB = polychlorinated biphenyl
PCT = polychlorinated triphenyl
PID = photoionization detector
RMHF = Radioactive Material Handling Facility
SIM = selective ion monitoring
SNAP = Streamlined New Acquisition Process
SRE = Sodium Reactor Experiment
TPH = total petroleum hydrocarbons

Location ID	Location Description	Rationale / Comments	Boring Total Depth (ft bgs)	Fill Description	Sample Date	Sample Type	Sample Number	Laboratory Analyses
NBZ_DG-501	Southwestern Portion of NBZ-NW	Resample for cadmium at 92-886-1A-1 and 93-886-25A to confirm detects that were above LUT value. Also addresses elevated RLs for antimony and silver results. Bedrock anticipated <5 feet bgs. Collect surface sample & 5 feet only. If fill/staining/disturbance/PID hit encountered, sample deeper intervals. Sample fill/native contact and/or default sample depths.	2.4	None indicated. Refusal on bedrock.	12/06/2013	Surface	SL-501-NBZ-SB-0.0-0.5	Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, pH EPA 9045
NBZ_DG-502	Southwestern Portion of NBZ-NW	Stepout for pesticides and TPH at SL-002-NBZ. Also targets historic dirt road. Bedrock anticipated <5 feet bgs. Collect surface sample & 5 ft. only. If fill/staining/disturbance/PID hit encountered, sample deeper intervals. Sample fill/native contact and/or default sample depths.	5	None indicated. Refusal on bedrock.	12/03/2013	Surface	SL-502-NBZ-SB-0.0-0.5	Pesticides EPA 8081, TPH-EFH EPA 8015
					12/03/2013	Subsurface	SL-502-NBZ-SB-4.0-5.0	Pesticides EPA 8081, TPH-EFH EPA 8015, TPH-GRO EPA 8015
NBZ_DG-503	Southwestern Portion of NBZ-NW	Stepout for pesticides and TPH at SL-002-NBZ. Also targets historic dirt road. Bedrock anticipated <5 feet bgs. Collect surface sample & 5 ft. only. If fill/staining/disturbance/PID hit encountered, sample deeper intervals. Sample fill/native contact and/or default sample depths.	3	None indicated. Refusal on bedrock.	12/03/2013	Surface	SL-503-NBZ-SB-0.0-0.5	Pesticides EPA 8081, TPH-EFH EPA 8015
					12/03/2013	Subsurface	SL-503-NBZ-SB-2.0-3.0	Pesticides EPA 8081, TPH-EFH EPA 8015
NBZ_DG-504	Southwestern Portion of NBZ-NW	Stepout for pesticides and TPH at SL-002-NBZ. Also targets historic dirt road. Bedrock anticipated <5 feet bgs. Collect surface sample & 5 ft. only. If fill/staining/disturbance/PID hit encountered, sample deeper intervals. Sample fill/native contact and/or default sample depths.	2.5	None indicated. Refusal on bedrock.	12/03/2013	Surface	SL-504-NBZ-SB-0.0-0.5	Pesticides EPA 8081, TPH-EFH EPA 8015
					12/03/2013	Surface (Duplicate)	SL-804-NBZ-SB-0.0-0.5	Pesticides EPA 8081, TPH-EFH EPA 8015
NBZ_DG-505	Western Portion of NBZ-NW	Assesses potential air dispersion impacts related to burning and treatment activities at the former FSDF ponds and is located northwest of FSDF in the prevailing wind direction. Location is in a blind drainage and is one of nine locations proposed (e.g., NBZ_DG-505 -511, -512, -516, -517, -518, -519, -520, -521) that will assess this migration pathway. Additional sampling to address this pathway was also proposed in Subarea 8. Bedrock anticipated <5 feet bgs. Collect surface sample & 5 ft. only. If fill/staining/disturbance/PID hit encountered, sample deeper intervals. Sample fill/native contact and/or default sample depths.	1.4	None indicated. Refusal on bedrock.	12/13/2013	Surface	SL-505-NBZ-SB-0.0-0.5	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, TPH-EFH EPA 8015, pH EPA 9045
NBZ_DG-506	Southwest of NBZ-NW	Stepout for pesticides and TPH at SL-001-NBZ. Also targets an offsite historic dirt road. Bedrock anticipated <5 feet bgs. Collect surface sample & 5 ft. only. If fill/staining/disturbance/PID hit encountered, sample deeper intervals. Sample fill/native contact and/or default sample depths.	1	None indicated. Refusal on bedrock.	12/04/2013	Surface	SL-506-NBZ-SB-0.0-0.5	Pesticides EPA 8081, TPH-EFH EPA 8015

Table 2-2
Soil Samples Designated to be Collected from NBZ
Phase 3

Location ID	Location Description	Rationale / Comments	Boring Total Depth (ft bgs)	Fill Description	Sample Date	Sample Type	Sample Number	Laboratory Analyses
NBZ_DG-507	Southwest of NBZ-NW	Stepout for pesticides and TPH at SL-001-NBZ. Also targets an offsite historic dirt road. Bedrock anticipated <5 feet bgs. Collect surface sample & 5 ft. only. If fill/staining/disturbance/PID hit encountered, sample deeper intervals. Sample fill/native contact and/or default sample depths.	4.5	None indicated. Refusal on bedrock.	12/04/2013	Surface	SL-507-NBZ-SB-0.0-0.5	Pesticides EPA 8081, TPH-EFH EPA 8015
					12/04/2013	Subsurface	SL-507-NBZ-SB-3.5-4.5	Pesticides EPA 8081, TPH-EFH EPA 8015, TPH-GRO EPA 8015
NBZ_DG-508	North of NBZ-NW	Stepout for benzylbutyl phthalate at SL-148-NBZ to the south. Also targets an historic dirt road. Bedrock anticipated <5 feet bgs. Collect surface sample & 5 ft. only. If fill/staining/disturbance/PID hit encountered, sample deeper intervals. Sample fill/native contact and/or default sample depths.	5	None indicated. No refusal.	12/04/2013	Surface	SL-508-NBZ-SB-0.0-0.5	Dioxins EPA 1613, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, Pesticides EPA 8081, TPH-EFH EPA 8015, pH EPA 9045
					12/04/2013	Subsurface	SL-508-NBZ-SB-4.0-5.0	Dioxins EPA 1613, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, Pesticides EPA 8081, pH EPA 9045, TPH-EFH EPA 8015, TPH-GRO EPA 8015
NBZ_DG-509	Northwestern Portion of NBZ-NW	Location targets historic dirt road upslope and downslope of pesticide and TPH detections. Bedrock anticipated <5 feet bgs. Collect surface sample & 5 ft. only. If fill/staining/disturbance/PID hit encountered, sample deeper intervals. Sample fill/native contact and/or default sample depths.	3.5	None indicated. Refusal on bedrock.	12/03/2013	Surface	SL-509-NBZ-SB-0.0-0.5	Dioxins EPA 1613, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, Pesticides EPA 8081, TPH-EFH EPA 8015, pH EPA 9045
					12/03/2013	Subsurface	SL-509-NBZ-SB-2.5-3.5	TPH-GRO EPA 8015, Dioxins EPA 1613, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, Pesticides EPA 8081, pH EPA 9045, TPH-EFH EPA 8015
					12/03/2013	Subsurface (Duplicate)	SL-809-NBZ-SB-2.5-3.5	TPH-GRO EPA 8015, Dioxins EPA 1613, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, Pesticides EPA 8081, pH EPA 9045, TPH-EFH EPA 8015
NBZ_DG-510	Northwestern Portion of NBZ-NW	Location targets historic dirt road upslope and downslope of pesticide and TPH detections. Bedrock anticipated <5 feet bgs. Collect surface sample & 5 ft. only. If fill/staining/disturbance/PID hit encountered, sample deeper intervals. Sample fill/native contact and/or default sample depths.	5	None indicated. No refusal.	12/03/2013	Surface	SL-510-NBZ-SB-0.0-0.5	pH EPA 9045, Dioxins EPA 1613, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, Pesticides EPA 8081, TPH-EFH EPA 8015
					12/03/2013	Subsurface	SL-510-NBZ-SB-4.0-5.0	TPH-GRO EPA 8015, Dioxins EPA 1613, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, Pesticides EPA 8081, pH EPA 9045, TPH-EFH EPA 8015
NBZ_DG-511	Western Portion of NBZ-NW	Assesses potential air dispersion impacts related to burning and treatment activities at the former FSDF ponds, located northwest of FSDF in the prevailing wind direction. Location is one of nine locations (e.g., NBZ_DG-505 -511, -512, -516, -517, -518, -519, -520, -521) proposed to assess this migration pathway. Additional sampling to address this pathway was also proposed in Subarea 8. Bedrock anticipated <5 feet bgs. Collect surface sample & 5 ft. only. If fill/staining/disturbance/PID hit encountered, sample deeper intervals. Sample fill/native contact and/or default sample depths.	3.5	None indicated. Refusal on bedrock.	12/04/2013	Surface	SL-511-NBZ-SB-0.0-0.5	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, TPH-EFH EPA 8015, pH EPA 9045
					12/04/2013	Subsurface	SL-511-NBZ-SB-2.5-3.5	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, TPH-EFH EPA 8015, pH EPA 9045, TPH-GRO EPA 8015

Location ID	Location Description	Rationale / Comments	Boring Total Depth (ft bgs)	Fill Description	Sample Date	Sample Type	Sample Number	Laboratory Analyses
NBZ_DG-512	Southwestern Portion of NBZ-NW	Assesses potential air dispersion impacts related to burning and treatment activities at the former FSDF ponds, located northwest of FSDF in the prevailing wind direction. Location is one of nine locations (e.g., NBZ_DG-505 -511, -512, -516, -517, -518, -519, -520, -521) proposed to assess this migration pathway. Additional sampling to address this pathway was also proposed in Subarea 8. Previous analysis at this location was performed at the surface for metals only. Resample at 0.5 ft bgs for cadmium at 92-886-1B-1 to confirm detects above the LUT value. Bedrock anticipated <5 feet bgs. Collect surface sample & 5 ft. only. If fill/staining/disturbance/PID hit encountered, sample deeper intervals. Sample fill/native contact and/or default sample depths.	1.2	None indicated. Refusal on bedrock.	12/06/2013	Surface	SL-512-NBZ-SB-0.0-0.5	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, TPH-EFH EPA 8015
NBZ_DG-513	Western Portion of NBZ-NW	Location targets surface water flow pathway downgradient from TPH exceedance at SL-011-NBZ. Bedrock anticipated <5 feet bgs. Collect surface sample & 5 ft. only. If fill/staining/disturbance/PID hit encountered, sample deeper intervals. Sample fill/native contact and/or default sample depths.	1.9	0-1.9 ft bgs: Fill described as siltstone. Refusal on bedrock.	12/09/2013	Surface	SL-513-NBZ-SB-0.0-0.5	TPH-EFH EPA 8015
NBZ_DG-514	North of NBZ-NW	Location targets surface water pathway downgradient from pesticide exceedance at SED-036-SIV. Bedrock anticipated <5 feet bgs. Collect surface sample & 5 ft. only. If fill/staining/disturbance/PID hit encountered, sample deeper intervals. Sample fill/native contact and/or default sample depths.	2.6	None indicated. Refusal on bedrock.	12/09/2013	Surface	SL-514-NBZ-SB-0.0-0.5	Pesticides EPA 8081
NBZ_DG-515	North of NBZ-NW	Location targets surface water pathway downgradient from pesticide exceedance at SED-036-SIV. Bedrock anticipated <5 feet bgs. Collect surface sample & 5 ft. only. If fill/staining/disturbance/PID hit encountered, sample deeper intervals. Sample fill/native contact and/or default sample depths.	2.3	None indicated. Refusal on bedrock.	12/09/2013	Surface	SL-515-NBZ-SB-0.0-0.5	Pesticides EPA 8081
NBZ_DG-516	North of NBZ-NW	Assesses potential air dispersion impacts related to burning and treatment activities at the former FSDF ponds, located on the hillslope north of the Northeast NBZ and northwest of FSDF in the prevailing wind direction. Location is one of nine locations (e.g., NBZ_DG-505 -511, -512, -516, -517, -518, -519, -520, -521) proposed to assess this migration pathway. Additional sampling to address this pathway was also proposed in Subarea 8. Bedrock anticipated <5 feet bgs. Collect surface sample & 5 ft. only. If fill/staining/disturbance/PID hit encountered, sample deeper intervals. Sample fill/native contact and/or default sample depths.	5	None indicated. No refusal.	12/09/2013	Surface	SL-516-NBZ-SB-0.0-0.5	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, TPH-EFH EPA 8015, pH EPA 9045
					12/09/2013	Subsurface	SL-516-NBZ-SB-4.0-5.0	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, TPH-EFH EPA 8015, pH EPA 9045, TPH-GRO EPA 8015

Table 2-2
Soil Samples Designated to be Collected from NBZ
Phase 3

Location ID	Location Description	Rationale / Comments	Boring Total Depth (ft bgs)	Fill Description	Sample Date	Sample Type	Sample Number	Laboratory Analyses
NBZ_DG-517	North of NBZ-NW	Assesses potential air dispersion impacts related to burning and treatment activities at the former FSDF ponds, located on the hillslope north of the Northeast NBZ and northwest of FSDF in the prevailing wind direction. Location is one of nine locations (e.g., NBZ_DG-505 -511, -512, -516, -517, -518, -519, -520, -521) proposed to assess this migration pathway. Additional sampling to address this pathway was also proposed in Subarea 8. Bedrock anticipated <5 feet bgs. Collect surface sample & 5 ft. only. If fill/staining/disturbance/PID hit encountered, sample deeper intervals. Sample fill/native contact and/or default sample depths.	4.2	None indicated. Refusal on bedrock.	12/16/2013	Surface	SL-517-NBZ-SB-0.0-0.5	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, TPH-EFH EPA 8015, pH EPA 9045
					12/16/2013	Subsurface	SL-517-NBZ-SB-2.0-3.0	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, TPH-EFH EPA 8015, pH EPA 9045, TPH-GRO EPA 8015
NBZ_DG-518	North of NBZ-NW	Location targets the bottom of a blind surface water pathway/drainage northwest of FSDF in the prevailing wind direction. Assesses potential air dispersion impacts related to burning and treatment activities at the former FSDF ponds and is one of nine locations (e.g., NBZ_DG-505 -511, -512, -516, -517, -518, -519, -520, -521) proposed to assess this migration pathway. Additional sampling to address this pathway was also proposed in Subarea 8. Bedrock anticipated <5 feet bgs. Collect surface sample & 5 ft. only. If fill/staining/disturbance/PID hit encountered, sample deeper intervals. Sample fill/native contact and/or default sample depths.	2	0-2.0 ft bgs: Fill described as igneous/metamorphic gravel. Refusal on bedrock.	12/16/2013	Surface	SL-518-NBZ-SB-0.0-0.5	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, TPH-EFH EPA 8015, pH EPA 9045
NBZ_DG-519	North of NBZ-NW	Location targets area further downdrainage from NBZ-DG-518. Assesses potential air dispersion impacts related to burning and treatment activities at the former FSDF ponds and is one of nine locations (e.g., NBZ_DG-505 -511, -512, -516, -517, -518, -519, -520, -521) proposed to assess this migration pathway. Additional sampling to address this pathway was also proposed in Subarea 8. Bedrock anticipated <5 feet bgs. Collect surface sample & 5 ft. only. If fill/staining/disturbance/PID hit encountered, sample deeper intervals. Sample fill/native contact and/or default sample depths.	0.7	0-0.7 ft bgs: Fill described as igneous/metamorphic gravel. Refusal on bedrock.	12/16/2013	Surface	SL-519-NBZ-SB-0.0-0.5	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, TPH-EFH EPA 8015, pH EPA 9045
NBZ_DG-520	North of NBZ-NW	Location targets blind surface water pathway/drainage northwest of FSDF in the prevailing wind direction. Assesses potential air dispersion impacts related to burning and treatment activities at the former FSDF ponds and is one of nine locations (e.g., NBZ_DG-505 -511, -512, -516, -517, -518, -519, -520, -521) proposed to assess this migration pathway. Additional sampling to address this pathway was also proposed in Subarea 8. Bedrock anticipated <5 feet bgs. Collect surface sample & 5 ft. only. If fill/staining/disturbance/PID hit encountered, sample deeper intervals. Sample fill/native contact and/or default sample depths.	0.5	0-0.5 ft bgs: Fill described as igneous/metamorphic gravel. Refusal on bedrock.	12/16/2013	Surface	SL-520-NBZ-SB-0.0-0.5	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, TPH-EFH EPA 8015, pH EPA 9045

Location ID	Location Description	Rationale / Comments	Boring Total Depth (ft bgs)	Fill Description	Sample Date	Sample Type	Sample Number	Laboratory Analyses
NBZ_DG-521	North of NBZ-NW	Assesses potential air dispersion impacts related to burning and treatment activities at the former FSDF ponds, located on the hillslope north of the Northeast NBZ and northwest of FSDF in the prevailing wind direction. Location is one of nine locations (e.g., NBZ_DG-505 -511, -512, -516, -517, -518, -519, -520, -521) proposed to assess this migration pathway. Additional sampling to address this pathway was also proposed in Subarea 8. Bedrock anticipated <5 feet bgs. Collect surface sample & 5 ft. only. If fill/staining/disturbance/PID hit encountered, sample deeper intervals. Sample fill/native contact and/or default sample depths.	0.8	0-0.8 ft bgs: Fill described as igneous/metamorphic gravel. Refusal on bedrock.	12/13/2013	Surface	SL-521-NBZ-SB-0.0-0.5	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, TPH-EFH EPA 8015, pH EPA 9045
NBZ_DG-522	Central Portion of NBZ-NW	Location targets surface water pathway upgradient from exceedances of PAHs, TPH, and nitrate at SL-081-NBZ. Bedrock anticipated <5 feet bgs. Collect surface sample & 5 ft. only. If fill/staining/disturbance/PID hit encountered, sample deeper intervals. Sample fill/native contact and/or default sample depths.	3.9	0-3.9 ft bgs: Fill described as siltstone. Refusal on bedrock.	12/09/2013	Surface	SL-522-NBZ-SB-0.0-0.5	Nitrates EPA 300.0/9056, PAH EPA 8270 SIM, TPH-EFH EPA 8015
					12/09/2013	Subsurface	SL-522-NBZ-SB-2.5-3.5	Nitrates EPA 300.0/9056, PAH EPA 8270 SIM, TPH-EFH EPA 8015,TPH-GRO EPA 8015
NBZ_DG-523	North of NBZ-NW	Location targets surface water pathway downgradient from exceedances of PAHs, TPH, and nitrate at SL-081-NBZ. Bedrock anticipated <5 feet bgs. Collect surface sample & 5 ft. only. If fill/staining/disturbance/PID hit encountered, sample deeper intervals. Sample fill/native contact and/or default sample depths.	2.3	0-2.3 ft bgs: Fill described as siltstone. Refusal on bedrock.	12/09/2013	Surface	SL-523-NBZ-SB-0.0-0.5	Nitrates EPA 300.0/9056, PAH EPA 8270 SIM, TPH-EFH EPA 8015
NBZ_DG-524	North of NBZ-NW	Location targets surface water pathway downgradient from exceedances of PAHs, TPH, and nitrate at SL-081-NBZ. Bedrock anticipated <5 feet bgs. Collect surface sample & 5 ft. only. If fill/staining/disturbance/PID hit encountered, sample deeper intervals. Sample fill/native contact and/or default sample depths.	1.1	0-1.1 ft bgs: Fill described as siltstone. Refusal on bedrock.	12/09/2013	Surface	SL-524-NBZ-SB-0.0-0.5	Nitrates EPA 300.0/9056, PAH EPA 8270 SIM, TPH-EFH EPA 8015
					12/09/2013	Surface (Duplicate)	SL-824-NBZ-SB-0.0-0.5	Nitrates EPA 300.0/9056, PAH EPA 8270 SIM, TPH-EFH EPA 8015
NBZ_DG-525	Central Portion of NBZ-NW	Stepout for TPH and herbicides at SL-021-NBZ. Bedrock anticipated <5 feet bgs. Collect surface sample & 5 ft. only. If fill/staining/disturbance/PID hit encountered, sample deeper intervals. Sample fill/native contact and/or default sample depths.	5	None indicated. No refusal.	12/05/2013	Surface	SL-525-NBZ-SB-0.0-0.5	Herbicides EPA 8151, TPH-EFH EPA 8015
					12/05/2013	Subsurface	SL-525-NBZ-SB-4.0-5.0	Herbicides EPA 8151, TPH-EFH EPA 8015, TPH-GRO EPA 8015
					12/05/2013	Subsurface (Duplicate)	SL-825-NBZ-SB-4.0-5.0	Herbicides EPA 8151, TPH-EFH EPA 8015, TPH-GRO EPA 8015
NBZ_DG-526	Central Portion of NBZ-NW	Stepout for TPH and herbicides at SL-021-NBZ, and pesticides at SL-023-NBZ. Bedrock anticipated <5 feet bgs. Collect surface sample & 5 ft. only. If fill/staining/disturbance/PID hit encountered, sample deeper intervals. Sample fill/native contact and/or default sample depths.	3.7	None indicated. Refusal on bedrock.	12/05/2013	Surface	SL-526-NBZ-SB-0.0-0.5	Herbicides EPA 8151, Pesticides EPA 8081, TPH-EFH EPA 8015
					12/05/2013	Subsurface	SL-526-NBZ-SB-2.5-3.5	Herbicides EPA 8151, Pesticides EPA 8081, TPH-EFH EPA 8015, TPH-GRO EPA 8015

Table 2-2
Soil Samples Designated to be Collected from NBZ
Phase 3

Location ID	Location Description	Rationale / Comments	Boring Total Depth (ft bgs)	Fill Description	Sample Date	Sample Type	Sample Number	Laboratory Analyses
NBZ_DG-527	North of NBZ-NW	One of three locations downdrainage from exceedances of dioxins, pesticides, and bis(2-ethylhexyl)phthalate at SED-011-SIV. Analyze for PCBs to support evaluation in FSDF drainage to the west and downstream of confluence. Bedrock anticipated <5 feet bgs.Collect surface sample & 5 ft. only. If fill/staining/disturbance/PID hit encountered, sample deeper intervals. Sample fill/native contact and/or default sample depths.	0.5	0-0.5 ft bgs: Fill described as igneous/metamorphic gravel. Refusal on bedrock.	12/05/2013	Surface	SL-527-NBZ-SB-0.0-0.5	Dioxins EPA 1613, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, Pesticides EPA 8081
NBZ_DG-528	North of NBZ-NW	One of three locations downdrainage from exceedances of dioxins, pesticides, and bis(2-ethylhexyl)phthalate at SED-011-SIV. Analyze for PCBs to support evaluation in FSDF drainage to the west and downstream of confluence. Bedrock anticipated <5 feet bgs.Collect surface sample & 5 ft. only. If fill/staining/disturbance/PID hit encountered, sample deeper intervals. Sample fill/native contact and/or default sample depths.	0.9	0-0.9 ft bgs: Fill described as sandstone and siltstone gravel in lower interval. Refusal on bedrock.	12/05/2013	Surface	SL-528-NBZ-SB-0.0-0.5	Dioxins EPA 1613, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, Pesticides EPA 8081
NBZ_DG-529	North of NBZ-NW	One of three locations downdrainage from exceedances of dioxins, pesticides, and bis(2-ethylhexyl)phthalate at SED-011-SIV. Analyze for PCBs to support evaluation in FSDF drainage to the west and downstream of confluence. Bedrock anticipated <5 feet bgs. Collect surface sample & 5 ft. only. If fill/staining/disturbance/PID hit encountered, sample deeper intervals. Sample fill/native contact and/or default sample depths.	0.8	0-0.8 ft bgs: Fill described as sandstone and siltstone gravel. Refusal on bedrock.	12/05/2013	Surface	SL-529-NBZ-SB-0.0-0.5	Dioxins EPA 1613, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, Pesticides EPA 8081
NBZ_DG-530	Eastern Portion of NBZ-NW	Stepout for pesticides and TPH at SL-025-NBZ. Bedrock anticipated <5 feet bgs.Collect surface sample & 5 ft. only. If fill/staining/disturbance/PID hit encountered, sample deeper intervals. Sample fill/native contact and/or default sample depths.	1.1	0-1.1 ft bgs: Fill described as igneous/metamorphic and sandstone formation gravel with burnt wood. Refusal on bedrock.	12/03/2013	Surface	SL-530-NBZ-SB-0.0-0.5	Pesticides EPA 8081, TPH-EFH EPA 8015
NBZ_DG-531	Eastern Portion of NBZ-NW	Stepout for pesticides and TPH at SL-025-NBZ and TPH at SL-026-NBZ. Bedrock anticipated <5 feet bgs. Collect surface sample & 5 feet only. If fill/staining/disturbance/PID hit encountered, sample deeper intervals. Sample fill/native contact and/or default sample depths.	2.6	1.0-2.6 ft bgs: Fill described as silty sand. Refusal on bedrock.	12/03/2013	Surface	SL-531-NBZ-SB-0.0-0.5	Pesticides EPA 8081, TPH-EFH EPA 8015
NBZ_DG-532	Eastern Portion of NBZ-NW	Stepout for pesticides and TPH at SL-025-NBZ and TPH at SL-026-NBZ. Bedrock anticipated <5 feet bgs. Collect surface sample & 5 ft. only. If fill/staining/disturbance/PID hit encountered, sample deeper intervals. Sample fill/native contact and/or default sample depths.	0.8	0-0.8 ft bgs: Fill described as igneous/metamorphic and sandstone formation gravel. Refusal on bedrock.	12/03/2013	Surface	SL-532-NBZ-SB-0.0-0.5	Pesticides EPA 8081, TPH-EFH EPA 8015
NBZ_DG-533	Eastern Portion of NBZ-NW	Stepout for TPH at SL-026-NBZ, HFBS0065, SL-019-SA7, and herbicides at SL-019-SA7. Bedrock anticipated <5 feet bgs. Collect surface sample & 5 ft. only. If fill/staining/disturbance/PID hit encountered, sample deeper intervals. Sample fill/native contact and/or default sample depths.	0.6	0-0.6 ft bgs: Fill described as igneous/metamorphic gravel and wood. Refusal on bedrock.	12/03/2013	Surface	SL-533-NBZ-SB-0.0-0.5	Herbicides EPA 8151, TPH-EFH EPA 8015

Location ID	Location Description	Rationale / Comments	Boring Total Depth (ft bgs)	Fill Description	Sample Date	Sample Type	Sample Number	Laboratory Analyses
NBZ_DG-534	Northeastern Portion of NBZ-NW	Stepout in upslope surface water pathway from TPH exceedance at SRBS1099. Bedrock anticipated <5 feet bgs. Collect surface sample & 5 ft. only. If fill/staining/disturbance/PID hit encountered, sample deeper intervals. Sample fill/native contact and/or default sample depths.	0.9	None indicated. Refusal on bedrock.	12/06/2013	Surface	SL-534-NBZ-SB-0.0-0.5	TPH-EFH EPA 8015
NBZ_DG-535	North of NBZ-NW	Location targets surface water pathway downslope from TPH exceedances at SL-032-NBZ and SRBS1099. Bedrock anticipated <5 feet bgs.Collect surface sample & 5 ft. only. If fill/staining/disturbance/PID hit encountered, sample deeper intervals. Sample fill/native contact and/or default sample depths.	2	None indicated. Refusal on bedrock.	12/06/2013	Surface	SL-535-NBZ-SB-0.0-0.5	TPH-EFH EPA 8015
NBZ_DG-536	North of NBZ-NW	Location targets surface water pathway downslope from TPH exceedances at SL-032-NBZ, SL-033-NBZ, and SRBS1099. Bedrock anticipated <5 feet bgs. Collect surface sample & 5 ft. only. If fill/staining/disturbance/PID hit encountered, sample deeper intervals. Sample fill/native contact and/or default sample depths.	NA	NA	Not Sampled, location inaccessible			
NBZ_DG-537	Northwestern Portion of NBZ-NE	Location targets surface water pathway downdrainage from exceedances of TPH and pesticides at SL-034-NBZ. Bedrock anticipated <5 feet bgs. Collect surface sample & 5 ft. only. If fill/staining/disturbance/PID hit encountered, sample deeper intervals. Sample fill/native contact and/or default sample depths.	2	0-2.0 ft bgs: Fill described as igneous/metamorphic gravel. Refusal on bedrock.	12/06/2013	Surface	SL-537-NBZ-SB-0.0-0.5	Dioxins EPA 1613, Pesticides EPA 8081, TPH-EFH EPA 8015
NBZ_DG-538	North of NBZ-NE	Location targets surface water pathway downdrainage from exceedances of TPH and pesticides at SL-034-NBZ, and bis-(2-ethylhexyl)phthalate, dioxins, and PAHs at SED-015-SIV. Bedrock anticipated <5 feet bgs. Collect surface sample & 5 ft. only. If fill/staining/disturbance/PID hit encountered, sample deeper intervals. Sample fill/native contact and/or default sample depths.	0.8	0-0.8 ft bgs: Fill described as igneous/metamorphic gravel. Refusal on bedrock.	12/06/2013	Surface	SL-538-NBZ-SB-0.0-0.5	Dioxins EPA 1613, PAH EPA 8270 SIM, Pesticides EPA 8081, TPH-EFH EPA 8015
NBZ_DG-539	North of NBZ-NE	Location targets surface water pathway downdrainage from exceedances of TPH and pesticides at SL-034-NBZ, and bis-(2-ethylhexyl)phthalate, dioxins, and PAHs at SED-015-SIV. Bedrock anticipated <5 feet bgs. Collect surface sample & 5 ft. only. If fill/staining/disturbance/PID hit encountered, sample deeper intervals. Sample fill/native contact and/or default sample depths.	0.4	None indicated. Refusal on bedrock.	12/12/2013	Surface	SL-539-NBZ-SB-0.0-0.5	Dioxins EPA 1613, PAH EPA 8270 SIM, Pesticides EPA 8081, TPH-EFH EPA 8015
NBZ_DG-540	North of NBZ-NE	One of three stepout locations (NBZ_DG-540, -541, -542) downdrainage from exceedances of PAHs, dioxins, pesticides, and herbicides at SED-022-SIV and pesticides/herbicides at SED-023-SIV. Bedrock anticipated <5 feet bgs.Collect surface sample & 5 ft. only. If fill/staining/disturbance/PID hit encountered, sample deeper intervals. Sample fill/native contact and/or default sample depths.	1.6	0-1.6 ft bgs: Fill described as siltstone. Refusal on bedrock.	12/11/2013	Surface	SL-540-NBZ-SB-0.0-0.5	Dioxins EPA 1613, Herbicides EPA 8151, PAH EPA 8270 SIM, Pesticides EPA 8081
					12/11/2013	Surface (Duplicate)	SL-840-NBZ-SB-0.0-0.5	Dioxins EPA 1613, Herbicides EPA 8151, PAH EPA 8270 SIM, Pesticides EPA 8081

Table 2-2
Soil Samples Designated to be Collected from NBZ
Phase 3

Location ID	Location Description	Rationale / Comments	Boring Total Depth (ft bgs)	Fill Description	Sample Date	Sample Type	Sample Number	Laboratory Analyses
NBZ_DG-541	North of NBZ-NE	One of three stepout locations (NBZ_DG-540, -541, -542) downdrainage from exceedances of PAHs, dioxins, pesticides, and herbicides at SED-022-SIV and pesticides/herbicides at SED-023-SIV. Bedrock anticipated <5 feet bgs.Collect surface sample & 5 ft. only. If fill/staining/disturbance/PID hit encountered, sample deeper intervals. Sample fill/native contact and/or default sample depths.	1.8	0-1.8 ft bgs: Fill described as siltstone. Refusal on bedrock.	12/11/2013	Surface	SL-541-NBZ-SB-0.0-0.5	Dioxins EPA 1613, Herbicides EPA 8151, PAH EPA 8270 SIM, Pesticides EPA 8081
NBZ_DG-542	North of NBZ-NE	One of three stepout locations (NBZ_DG-540, -541, -542) downdrainage from exceedances of PAHs, dioxins, pesticides, and herbicides at SED-022-SIV and pesticides/herbicides at SED-023-SIV. Bedrock anticipated <5 feet bgs.Collect surface sample & 5 ft. only. If fill/staining/disturbance/PID hit encountered, sample deeper intervals. Sample fill/native contact and/or default sample depths.	1.1	0-1.1 ft bgs: Fill described as siltstone. Refusal on bedrock.	12/11/2013	Surface	SL-542-NBZ-SB-0.0-0.5	Dioxins EPA 1613, Herbicides EPA 8151, PAH EPA 8270 SIM, Pesticides EPA 8081
NBZ_DG-543	Western Portion of NBZ-NE	Stepout upslope from exceedances of PAHs and TPH at SL-080-NBZ. Bedrock anticipated <5 feet bgs. Collect surface sample & 5 ft. only. If fill/staining/disturbance/PID hit encountered, sample deeper intervals. Sample fill/native contact and/or default sample depths.	0.7	None indicated. Refusal on bedrock.	12/12/2013	Surface	SL-543-NBZ-SB-0.0-0.5	PAH EPA 8270 SIM, TPH-EFH EPA 8015
NBZ_DG-544	Western Portion of NBZ-NE	Location targets potential surface water pathway downslope from exceedances of pesticides at SL-095-NBZ, TPH at SL-043-NBZ, and PAHs, metals, and TPH at OCBS92. Aerial photographs show bedrock outcrop in the area; field place sample in area of soil if possible. Bedrock anticipated <5 feet bgs; Collect surface sample & 5 ft. only. If fill/staining/disturbance/PID hit encountered, sample deeper intervals. Sample fill/native contact and/or default sample depths.	1.2	None indicated. Refusal on bedrock.	12/12/2013	Surface	SL-544-NBZ-SB-0.0-0.5	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, Pesticides EPA 8081, TPH-EFH EPA 8015, pH EPA 9045
					12/12/2013	Surface (Duplicate)	SL-844-NBZ-SB-0.0-0.5	Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, Pesticides EPA 8081, TPH-EFH EPA 8015, pH EPA 9045
NBZ_DG-545	Western Portion of NBZ-NE	Stepout downslope from exceedances of PCBs at SL-047-NBZ, cyanide, dioxins, PAHs, and TPH at SL-048-NBZ, and TPH at SL-049-NBZ. Bedrock anticipated <5 feet bgs. Collect surface sample & 5 ft. only. If fill/staining/disturbance/PID hit encountered, sample deeper intervals. Sample fill/native contact and/or default sample depths.	0.8	0-0.8 ft bgs: fill described as igneous/metamorphic gravel and concrete. Refusal on bedrock.	12/04/2013	Surface	SL-545-NBZ-SB-0.0-0.5	Cyanide EPA 9012, Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, TPH-EFH EPA 8015, pH EPA 9045
					12/04/2013	Surface (Duplicate)	SL-845-NBZ-SB-0.0-0.5	Cyanide EPA 9012, Dioxins EPA 1613, Mercury EPA 7471, Metals EPA 6010, Metals EPA 6020, PAH EPA 8270 SIM, PCBs/PCTs EPA 8082, TPH-EFH EPA 8015, pH EPA 9045
NBZ_DG-546	Western Portion of NBZ-NE	Location targets surface water pathway upslope from exceedance of TPH at OCBS88. Bedrock anticipated <5 feet bgs.Collect surface sample & 5 ft. only. If fill/staining/disturbance/PID hit encountered, sample deeper intervals. Sample fill/native contact and/or default sample depths.	0.6	None indicated. Refusal on bedrock.	12/04/2013	Surface	SL-546-NBZ-SB-0.0-0.5	TPH-EFH EPA 8015

Location ID	Location Description	Rationale / Comments	Boring Total Depth (ft bgs)	Fill Description	Sample Date	Sample Type	Sample Number	Laboratory Analyses
NBZ_DG-547	Western Portion of NBZ-NE	Location targets surface water pathway downslope from exceedance of TPH at OCBS88. Bedrock anticipated <5 feet bgs. Collect surface sample & 5 ft. only. If fill/staining/disturbance/PID hit encountered, sample deeper intervals. Sample fill/native contact and/or default sample depths.	0.4	0-0.4 ft bgs: fill described as igneous/metamorphic gravel and wood. Refusal on bedrock.	12/04/2013	Surface	SL-547-NBZ-SB-0.0-0.5	TPH-EFH EPA 8015
NBZ_DG-548	Western Portion of NBZ-NE	Stepout for PCBs, dioxins, and TPH at SL-062-NBZ. Also targets historical dirt road. Bedrock anticipated <5 feet bgs. Collect surface sample & 5 ft. only. If fill/staining/disturbance/PID hit encountered, sample deeper intervals. Sample fill/native contact and/or default sample depths.	1.5	None indicated. Refusal on bedrock.	12/04/2013	Surface	SL-548-NBZ-SB-0.0-0.5	Dioxins EPA 1613, PCBs/PCTs EPA 8082, TPH-EFH EPA 8015
NBZ_DG-549	Western Portion of NBZ-NE	Location targets surface water pathway downslope from exceedance of TPH at SL-065-NBZ. Bedrock anticipated <5 feet bgs.Collect surface sample & 5 ft. only. If fill/staining/disturbance/PID hit encountered, sample deeper intervals. Sample fill/native contact and/or default sample depths.	1.1	None indicated. Refusal on bedrock.	12/04/2013	Surface	SL-549-NBZ-SB-0.0-0.5	TPH-EFH EPA 8015
NBZ_DG-551	Northeast of NBZ-NE	One of two locations (NBZ_DG-551, -552) targeting surface water pathway downslope from exceedance of PAHs at SL-101-NBZ. Bedrock anticipated <5 feet bgs;Collect surface sample & 5 ft. only. If fill/staining/disturbance/PID hit encountered, sample deeper intervals. Sample fill/native contact and/or default sample depths.	1.7	0-1.7 ft bgs: fill described red brick. Refusal on bedrock.	12/17/2013	Surface	SL-551-NBZ-SB-0.0-0.5	PAH EPA 8270 SIM
NBZ_DG-552	Northeast of NBZ-NE	One of two locations (NBZ_DG-551, -552) targeting surface water pathway downslope from exceedance of PAHs at SL-101-NBZ. Bedrock anticipated <5 feet bgs;Collect surface sample & 5 ft. only. If fill/staining/disturbance/PID hit encountered, sample deeper intervals. Sample fill/native contact and/or default sample depths.	3	None indicated. Refusal on bedrock.	12/10/2013	Surface	SL-552-NBZ-SB-0.0-0.5	PAH EPA 8270 SIM
					12/10/2013	Subsurface	SL-552-NBZ-SB-2.0-3.0	PAH EPA 8270 SIM
NBZ_DG-553	North of NBZ-NE	Down-drainage stepout for PCBs at 428480. Bedrock anticipated <5 feet bgs.Collect surface sample & 5 ft. only. If fill/staining/disturbance/PID hit encountered, sample deeper intervals. Sample fill/native contact and/or default sample depths.	0.9	0-0.9 ft bgs: fill described as igneous/metamorphic gravel. Refusal on bedrock.	12/10/2013	Surface	SL-553-NBZ-SB-0.0-0.5	PCBs/PCTs EPA 8082
NBZ_DG-554	North of NBZ-NE	Down-drainage stepout for PCBs at 428480. Bedrock anticipated <5 feet bgs. Collect surface sample & 5 ft. only. If fill/staining/disturbance/PID hit encountered, sample deeper intervals. Sample fill/native contact and/or default sample depths.	0.7	0-0.7 ft bgs: fill described as igneous/metamorphic gravel. Refusal on bedrock.	12/10/2013	Surface	SL-554-NBZ-SB-0.0-0.5	PCBs/PCTs EPA 8082

Table 2-2
Soil Samples Designated to be Collected from NBZ
Phase 3

Location ID	Location Description	Rationale / Comments	Boring Total Depth (ft bgs)	Fill Description	Sample Date	Sample Type	Sample Number	Laboratory Analyses
NBZ_DG-555	North of NBZ-NE	Down-drainage stepout for PCBs at 428480. Bedrock anticipated <5 feet bgs.Collect surface sample & 5 ft. only. If fill/staining/disturbance/PID hit encountered, sample deeper intervals. Sample fill/native contact and/or default sample depths.	1.3	0-1.3 ft bgs: fill described as igneous/metamorphic gravel. Refusal on bedrock.	12/10/2013	Surface	SL-555-NBZ-SB-0.0-0.5	PCBs/PCTs EPA 8082
NBZ_DG-556	Central Portion of NBZ-NW	Stepout upslope from TPH exceedance at U7BS0006. Bedrock anticipated <5 feet bgs. Collect surface sample & 5 ft. only. If fill/staining/disturbance/PID hit encountered, sample deeper intervals. Sample fill/native contact and/or default sample depths.	5	None indicated. No refusal.	12/6/2014	Surface	SL-556-NBZ-SB-0.0-0.5	Herbicides EPA 8151, Pesticides EPA 8081, TPH-EFH EPA 8015, TPH-GRO EPA 8015
					12/06/2013	Subsurface	SL-556-NBZ-SB-4.0-5.0	Herbicides EPA 8151, Pesticides EPA 8081, TPH-EFH EPA 8015, TPH-GRO EPA 8015
NBZ_DG-557	North of NBZ-NW	Stepout downdrainage from PCB exceedance at Brandeis-2. Bedrock anticipated <5 feet bgs. Collect surface sample & 5 ft. only. If fill/staining/disturbance/PID hit encountered, sample deeper intervals. Sample fill/native contact and/or default sample depths.	0.8	None indicated. Refusal on bedrock.	12/13/2013	Surface	SL-557-NBZ-SB-0.0-0.5	PCBs/PCTs EPA 8082

Notes & Abbreviations:
Note: The sample number for a "duplicate sample" was increased by 300 (e.g. SB-530 and SB-830)
bgs = below ground surface
EFH = extractable fuel hydrocarbon
EPA = Environmental Protection Agency
ft = feet
FSDF= Former Sodium Disposal Facility
GRO = gasoline range organic
ID = identifier
LUT= Look Up Table
NBZ = Northern Buffer Zone
NW= Northwest
PAH = polyaromatic hydrocarbon
PCB = polychlorinated biphenyl
PCT = polychlorinated triphenyl
PID= photoionization detector
RL = reporting limit
SIM = selective ion monitoring
TPH = total petroleum hydrocarbon
Samples not collected

After the samples were collected and labeled "Top" and "Bottom," adhesive sample labels, completed with all sampling information, were affixed to all sample sleeves and jars, which were then placed into plastic zip top bags and stored in a cooler with double bagged ice until the samples were relinquished to the project sample coordinator or field team leader (FTL). Each surface sample was to be analyzed for the analytes identified for each sample location as indicated in Table 1 of the Subarea 7 Data Gap Analysis TM (CDM Smith 2012b) and Table 2 of the NBZ Data Gap Analysis TM (CDM Smith 2013).

2.2 Subsurface Sampling

Collection of subsurface soil samples at most locations in Subarea 7 and the NBZ was performed in accordance with SSFL SOP 3 (Subsurface Soil Sampling with Hang Auger) of the Master FSP using a hand auger and slide hammer equipped with stainless steel sleeves. Subsurface samples were collected from 19 locations in Subarea 7 and from nine locations in the NBZ via hand auger and slide hammer.

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

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

Collection of subsurface soil samples at easily accessible locations in Subarea 7 and the NBZ was performed by a California-licensed DPT subcontractor under CDM Smith oversight and in accordance with SSFL SOP 4 (Direct Push Technology [DPT] Sampling) of the Master FSP. Subsurface samples were collected from two locations in SA7 and five locations in the NBZ using DPT. Soil cores were collected using the DPT dual-tube sampling method, which consists of a 2-inch outer steel drive casing and an inner 1¾-inch diameter acetate soil sampling sleeve. After the liner was retracted from the core barrel, it was opened lengthwise with a cutting tool. Samples were collected from the acetate sleeve by the CDM Smith sampler at the depths specified in Table 1 of the Subarea 7 and NBZ Data Gap Analysis TM. Samples were also collected from any depths where the PID detected concentrations above background or where there was visual evidence of possible contamination.

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

2.3 Sample Handling

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

All sampling information on the FSDS was input into the Scribe electronic database by the sampling coordinator and one or more chain-of-custody (CoC) forms were generated at the end of the day from the database. The FTL reviewed each CoC, corrected any discrepancies, and reprinted the CoC, as needed. All CoCs for the Phase 3 Subarea 7 and NBZ sampling activities are presented in Appendix F. Each completed CoC was signed by the sampler and the FTL as the individual responsible for release of the samples to the courier. All samples were packed into coolers and shipped in accordance with SSFL SOP 11 (Packaging and Shipping Environmental Samples).

2.4 Field Quality Control Procedures

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

2.4.1 Field Duplicates and MS/MSD Samples

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

During sampling in Subarea 7, a total of six field duplicate/MS/MSD samples were collected equating to approximately fifteen percent. For NBZ, a total of seven field duplicate and MS/MSD samples were collected equating to approximately ten percent. On an individual method basis, the five percent goal was exceeded for all analyses.

2.4.2 Equipment Rinsate Blank Samples

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

2.4.3 Field Blank Samples

Field blanks were collected once for each lot number of ASTM International Type II water that was used for decontamination. One field blank was collected during Phase 3 sampling in Subarea 7 and NBZ. Other field blanks are associated with samples in Subarea 7 and NBZ but were collected prior to the sampling conducted in these subareas.

2.4.4 Decontamination of Sampling Equipment

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

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

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

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

2.5 Analytical Laboratory Methods and Procedures

2.5.1 Analytical Methods

The Subarea 7 and NBZ Phase 3 soil samples were subject to analysis using at least one of the following analytical methods:

- Metals using EPA Methods 6010C/6020A, 7471B (mercury), and 7199 (chromium VI)
- Soil pH using EPA Method 9045M
- PAHs using Method 8270D selective ion monitoring (SIM)
- N-Nitrosodimethylamine (NDMA) using EPA Method 8270D SIM
- Pesticides using EPA Method 8081B
- Herbicides using EPA Method 8151A
- PCBs/PCTs using EPA Method 8082A
- Dioxins/furans using EPA Method 1613B
- Formaldehyde using EPA Method 8315A
- TPH-EFH using EPA Method 8015M
- TPH-GRO using EPA Method 8015M

Eurofins Lancaster Laboratory in Lancaster, Pennsylvania analyzed all parameters for the Phase 3 Subarea 7 and NBZ samples. The laboratory was selected using a competitive procurement process.

2.6 Data Review Processes

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

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

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

- Reconciliation of the reported analyses against the analyses that were requested on the CoCs.
- Review of the laboratory case narratives. The case narrative identifies and explains quality issues encountered during the analysis of the samples. Quality issues may include (but are not limited to) missed holding times, poor spike recoveries in matrix or batch-specific QC samples, instrument calibration exceedances, and blank contamination.
- Review of the laboratory-specific QC data. These data are provided by the laboratory in summary form. Any unanticipated deviations from the project or method-specific criteria are reconciled with the laboratory at this stage.

2.7 Deviations from the Master FSP

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

2.7.1 Field Sampling

The SSFL SOP 2 (Surface Soil Sampling) requires soil to be collected in decontaminated stainless steel sleeves during soil sample collection by slide hammer. Due to loose, sand soil conditions that prevented soil from remaining within the stainless steel sleeve, four samples in the NBZ and three samples in Subarea 7 were collected using a clean slide hammer and placed directly into glass jars.

2.7.2 Analytical

No analytical deviations were encountered during analyses of samples collected for Phase 3 in Subarea 7 and NBZ.

Section 3

Subarea 7 and NBZ Phase 3 Soil Sampling Results

Because this TM only provides the analytical results, data in this section are presented in a summary fashion. Tables 3-1, 3-2 and 3-3 summarize the Phase 3 Subarea 7 surface, subsurface and combined soil sample data respectively. Tables 3-4, 3-5 and 3-6 summarize the Phase 3 NBZ surface, subsurface and combined soil sample data respectively. The tables detail the chemicals analyzed, their associated chemical abstract service (CAS) number, frequency of detection, minimum and maximum detected concentrations, range of observed detection limits and reporting limits (RLs), and the sample location where the maximum concentration of each analyte was detected. If two locations for the maximum concentration are listed and only one maximum concentration value is provided, this indicates that the concentration was the same at the specified depth at both locations.

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

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Group	Chemical	CAS No	Detection Frequency	Minimum Concentration	Maximum Concentration	Range of Method Detection Limit	Range of Method Reporting Limit	Unit	Location of Maximum Concentration	Laboratory of Maximum Concentration	Method of Maximum Concentration	Depth of Maximum Concentration
Dioxins	1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	35822-46-9	57 / 58	0.988 J Z	2000 J *#	0.0139 - 0.223	4.85 - 5.3	ng/kg	7_DG-505	LL	1613B	0 - 0.5
Dioxins	1,2,3,4,6,7,8-HPCDF	67562-39-4	57 / 58	0.247 J Z	101	0.00962 - 0.0684	4.85 - 5.3	ng/kg	7_DG-505	LL	1613B	0 - 0.5
Dioxins	1,2,3,4,7,8,9-HPCDF	55673-89-7	42 / 58	0.0981 J Z	12.2	0.0127 - 0.0792	4.85 - 5.3	ng/kg	7_DG-505	LL	1613B	0 - 0.5
Dioxins	1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	39227-28-6	51 / 58	0.0344 J Z	3660 J *#	0.017 - 0.114	4.85 - 5.3	ng/kg	7_DG-505	LL	1613B	0 - 0.5
Dioxins	1,2,3,4,7,8-HXCDF	70648-26-9	42 / 58	0.117 J Z	6.59	0.0126 - 0.0764	4.85 - 5.3	ng/kg	7_DG-505	LL	1613B	0 - 0.5
Dioxins	1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	57653-85-7	57 / 58	0.0704 J Z	54.8	0.0176 - 0.128	4.85 - 5.3	ng/kg	7_DG-505	LL	1613B	0 - 0.5
Dioxins	1,2,3,6,7,8-HXCDF	57117-44-9	48 / 58	0.0854 J Z	7.55	0.012 - 0.0745	4.85 - 5.3	ng/kg	7_DG-505	LL	1613B	0 - 0.5
Dioxins	1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	19408-74-3	52 / 58	0.121 J Z	18.1	0.0174 - 0.118	4.85 - 5.3	ng/kg	7_DG-505	LL	1613B	0 - 0.5
Dioxins	1,2,3,7,8,9-HXCDF	72918-21-9	20 / 58	0.0737 J Z	1.07 J Z	0.0137 - 0.101	4.85 - 5.3	ng/kg	7_DG-561	LL	1613B	0 - 0.5
Dioxins	1,2,3,7,8-Pentachlorodibenzofuran	57117-41-6	39 / 58	0.217 J Z	18	0.00936 - 0.0771	4.85 - 5.3	ng/kg	7_DG-517	LL	1613B	0 - 0.5
Dioxins	1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	40321-76-4	39 / 58	0.039 J Z	15.9	0.0158 - 0.107	4.85 - 5.3	ng/kg	7_DG-505	LL	1613B	0 - 0.5
Dioxins	2,3,4,6,7,8-HXCDF	60851-34-5	45 / 58	0.0959 J Z	9.07	0.0125 - 0.0853	4.85 - 5.3	ng/kg	7_DG-505	LL	1613B	0 - 0.5
Dioxins	2,3,4,7,8-PECDF	57117-31-4	43 / 58	0.0636 J Z	3.48 J Z	0.00892 - 0.0678	4.85 - 5.3	ng/kg	7_DG-514	LL	1613B	0 - 0.5
Dioxins	2,3,7,8-TCDD	1746-01-6	34 / 58	0.0231 J Z	4.35	0.0173 - 0.148	0.971 - 1.06	ng/kg	7_DG-505	LL	1613B	0 - 0.5
Dioxins	2,3,7,8-Tetrachlorodibenzofuran	51207-31-9	51 / 58	0.0282 J Z	3.69	0.0189 - 0.122	0.971 - 1.06	ng/kg	7_DG-517	LL	1613B	0 - 0.5
Dioxins	OCDD	3268-87-9	57 / 58	7.79 J Z	23100 J *#	0.0134 - 0.134	9.71 - 10.6	ng/kg	7_DG-505	LL	1613B	0 - 0.5
Dioxins	OCDF	39001-02-0	56 / 58	0.856 J Z	177	0.0157 - 0.151	9.71 - 10.6	ng/kg	7_DG-505	LL	1613B	0 - 0.5
Formaldehyde	Formaldehyde	50-00-0	0 / 1	-	-	1200 - 1200	2100 - 2100	µg/kg	-	-	-	-
Hexavalent Chromium	Chromium (Hexavalent Compounds)	18540-29-9	1 / 1	0.37 J Z	0.37 J Z	0.15 - 0.15	0.42 - 0.42	mg/kg	7_DG-540	LL	7199	0 - 0.5
Mercury	Mercury	7439-97-6	47 / 57	0.0108 J Z	0.414	0.0095 - 0.011	0.0158 - 0.0213	mg/kg	7_DG-508	LL	7471B	0 - 0.5
Metals	Aluminum	7429-90-5	57 / 57	8670	18900	7.55 - 8.35	39.2 - 43.3	mg/kg	7_DG-502	LL	6010C	0 - 0.5
Metals	Antimony	7440-36-0	29 / 57	0.545 J Q, Z	4.63 J FD, Q	0.49 - 0.783	3.92 - 4.33	mg/kg	7_DG-519	LL	6010C	0 - 0.5
Metals	Arsenic	7440-38-2	57 / 57	1.55 J Z	9.73	0.323 - 0.741	3.92 - 4.33	mg/kg	7_DG-500	LL	6010C	0 - 0.5
Metals	Barium	7440-39-3	57 / 57	55.4	114	0.0323 - 0.0357	0.979 - 1.08	mg/kg	7_DG-502	LL	6010C	0 - 0.5
Metals	Beryllium	7440-41-7	49 / 57	0.378 J Z	0.74 J Z	0.0656 - 0.0726	0.979 - 1.08	mg/kg	7_DG-557	LL	6010C	0 - 0.5
Metals	Boron	7440-42-8	21 / 57	1.67 J Z	6.79 J Z	0.813 - 0.899	9.79 - 10.8	mg/kg	7_DG-555	LL	6010C	0 - 0.5
Metals	Cadmium	7440-43-9	48 / 57	0.0439 J Z	1.19 J FD	0.0323 - 0.0804	0.979 - 1.08	mg/kg	7_DG-519	LL	6010C	0 - 0.5
Metals	Calcium	7440-70-2	57 / 57	1360 J E	12000 J E	3.53 - 4.35	19.6 - 21.7	mg/kg	7_DG-515	LL	6010C	0 - 0.5
Metals	Chromium	7440-47-3	57 / 57	9.62	30.2	0.0862 - 0.169	2.94 - 3.25	mg/kg	7_DG-517	LL	6010C	0 - 0.5
Metals	Cobalt	7440-48-4	57 / 57	3.19	10.8	0.0881 - 0.105	0.979 - 1.08	mg/kg	7_DG-518	LL	6010C	0 - 0.5
Metals	Copper	7440-50-8	57 / 57	3.54	20.8	0.176 - 0.91	1.96 - 10.1	mg/kg	7_DG-508	LL	6010C	0 - 0.5
Metals	Iron	7439-89-6	57 / 57	14000	27200	3.72 - 7.78	39.2 - 81.9	mg/kg	7_DG-508	LL	6010C	0 - 0.5
Metals	Lead	7439-92-1	57 / 57	4.04	30.2	0.46 - 0.529	2.94 - 3.25	mg/kg	7_DG-560	LL	6010C	0 - 0.5
Metals	Lithium	7439-93-2	57 / 57	12	32.7	0.36 - 0.6	3.9 - 4.3	mg/kg	7_DG-502	LL	6010C	0 - 0.5
Metals	Magnesium	7439-95-4	57 / 57	2600	7080	1.69 - 1.87	9.79 - 10.8	mg/kg	7_DG-506	LL	6010C	0 - 0.5
Metals	Manganese	7439-96-5	57 / 57	198	560	0.0813 - 0.0899	0.979 - 1.08	mg/kg	7_DG-561	LL	6010C	0 - 0.5
Metals	Molybdenum	7439-98-7	2 / 57	0.403 J Z	2.79 J FD	0.166 - 0.184	1.96 - 2.17	mg/kg	7_DG-519	LL	6010C	0 - 0.5
Metals	Nickel	7440-02-0	57 / 57	5.31	18.2	0.108 - 0.138	1.96 - 2.17	mg/kg	7_DG-517	LL	6010C	0 - 0.5
Metals	Phosphorus	7723-14-0	57 / 57	267	679 J E, A	0.499 - 3.06	9.79 - 10.8	mg/kg	7_DG-519	LL	6010C	0 - 0.5
Metals	Potassium	9/7/7440	57 / 57	1850 J Q	4520 J Q	8.83 - 14.6	97.9 - 108	mg/kg	7_DG-518	LL	6010C	0 - 0.5
Metals	Selenium	7782-49-2	33 / 57	0.102 J FD, Z	0.572	0.0979 - 0.108	0.392 - 0.433	mg/kg	7_DG-541	LL	6020A	0 - 0.5
Metals	Silver	7440-22-4	47 / 57	0.0205 J Z	0.0918 J Z	0.0196 - 0.0275	0.196 - 0.217	mg/kg	7_DG-518	LL	6020A	0 - 0.5
Metals	Sodium	7440-23-5	41 / 57	53 J Z	319	16.4 - 18.1	97.9 - 108	mg/kg	7_DG-516	LL	6010C	0 - 0.5
Metals	Strontium	7440-24-6	57 / 57	7.03 J Q	37.5	0.0333 - 0.18	0.392 - 1.06	mg/kg	7_DG-519	LL	6020A	0 - 0.5
Metals	Thallium	7440-28-0	57 / 57	0.138 J Z	0.398	0.0294 - 0.0325	0.196 - 0.217	mg/kg	7_DG-529	LL	6020A	0 - 0.5
Metals	Tin	7440-31-5	1 / 57	10.9 J FD	10.9 J FD	0.215 - 0.238	9.79 - 10.8	mg/kg	7_DG-519	LL	6010C	0 - 0.5
Metals	Titanium	7440-32-6	57 / 57	713	1470	0.166 - 0.184	0.979 - 1.08	mg/kg	7_DG-502	LL	6010C	0 - 0.5
Metals	Vanadium	7440-62-2	57 / 57	19	50	0.108 - 0.138	0.979 - 1.08	mg/kg	7_DG-506	LL	6010C	0 - 0.5
Metals	Zinc	7440-66-6	57 / 57	42.5	115	0.196 - 0.217	3.92 - 4.33	mg/kg	7_DG-504	LL	6010C	0 - 0.5
Metals	Zirconium	7440-67-7	39 / 57	0.902 J Z	12.5	0.813 - 0.899	4.9 - 5.42	mg/kg	7_DG-517	LL	6010C	0 - 0.5
Moisture Content	Moisture	MOIST	65 / 65	1.1	9.5	0.1 - 0.1	0.1 - 0.1	%	7_DG-526	LL	160.3M	0 - 0.5
PAHs	1-Methylnaphthalene	90-12-0	17 / 57	0.75 J Z	1.7 J Z	0.67 - 71	1.7 - 180	µg/kg	7_DG-524	LL	8270D SIM	0 - 0.5
PAHs	2-Methylnaphthalene	91-57-6	26 / 57	0.72 J Z	13 J Z	0.67 - 71	1.7 - 180	µg/kg	7_DG-517	LL	8270D SIM	0 - 0.5
PAHs	Acenaphthene	83-32-9	0 / 57	-	-	0.67 - 71	1.7 - 180	µg/kg	-	-	-	-

Table 3-1
Summary of Analytical Results for Chemicals - Validated Data
Surface Soils – Subarea 7 – Phase 3

Group	Chemical	CAS No	Detection Frequency	Minimum Concentration	Maximum Concentration	Range of Method Detection Limit	Range of Method Reporting Limit	Unit	Location of Maximum Concentration	Laboratory of Maximum Concentration	Method of Maximum Concentration	Depth of Maximum Concentration
PAHs	Acenaphthylene	208-96-8	5 / 57	0.39 J FD, Z	1 J Z	0.33 - 36	1.7 - 180	µg/kg	7_DG-508	LL	8270D SIM	0 - 0.5
PAHs	Anthracene	120-12-7	24 / 57	0.35 J Z	6 J Z	0.33 - 36	1.7 - 180	µg/kg	7_DG-539	LL	8270D SIM	0 - 0.5
PAHs	Benzo(a)anthracene	56-55-3	30 / 57	0.71 J Z	42	0.67 - 71	1.7 - 180	µg/kg	7_DG-560	LL	8270D SIM	0 - 0.5
PAHs	Benzo(a)pyrene	50-32-8	37 / 57	0.71 J Z	41	0.67 - 71	1.7 - 180	µg/kg	7_DG-560	LL	8270D SIM	0 - 0.5
PAHs	Benzo(b)fluoranthene	205-99-2	50 / 57	1.1 J Z	68	0.67 - 71	1.7 - 180	µg/kg	7_DG-554	LL	8270D SIM	0 - 0.5
PAHs	Benzo(e)pyrene	192-97-2	14 / 57	3.5 J Z	80 J Z	3.3 - 360	17 - 1800	µg/kg	7_DG-554	LL	8270D SIM	0 - 0.5
PAHs	Benzo(g,h,i)perylene	191-24-2	37 / 57	0.82 J Z	35	0.67 - 71	1.7 - 180	µg/kg	7_DG-554	LL	8270D SIM	0 - 0.5
PAHs	Benzo(k)fluoranthene	207-08-9	39 / 57	0.75 J Z	52	0.67 - 71	1.7 - 180	µg/kg	7_DG-504	LL	8270D SIM	0 - 0.5
PAHs	Bis(2-ethylhexyl)phthalate	117-81-7	35 / 57	6.3 J Z	610	6 - 640	18 - 1900	µg/kg	7_DG-509	LL	8270D SIM	0 - 0.5
PAHs	Butylbenzylphthalate	85-68-7	10 / 57	6.4 J Z	19	6 - 640	18 - 1900	µg/kg	7_DG-557	LL	8270D SIM	0 - 0.5
					19				7_DG-527	LL	8270D SIM	0 - 0.5
PAHs	Chrysene	218-01-9	52 / 57	0.34 J Z	47	0.33 - 36	1.7 - 180	µg/kg	7_DG-560	LL	8270D SIM	0 - 0.5
PAHs	Dibenzo(a,h)anthracene	53-70-3	12 / 57	0.89 J Z	4.4	0.67 - 71	1.7 - 180	µg/kg	7_DG-560	LL	8270D SIM	0 - 0.5
PAHs	Diethylphthalate	84-66-2	0 / 57	-	-	6 - 640	18 - 1900	µg/kg	-	-	-	-
PAHs	Dimethylphthalate	131-11-3	0 / 57	-	-	6 - 640	18 - 1900	µg/kg	-	-	-	-
PAHs	Di-n-butylphthalate	84-74-2	4 / 57	7.4 J Z	870	6 - 640	18 - 1900	µg/kg	7_DG-558	LL	8270D SIM	0 - 0.5
PAHs	Di-n-octylphthalate	117-84-0	0 / 57	-	-	6 - 640	18 - 1900	µg/kg	-	-	-	-
PAHs	Fluoranthene	206-44-0	51 / 57	0.96 J Z	82	0.67 - 71	1.7 - 180	µg/kg	7_DG-539	LL	8270D SIM	0 - 0.5
PAHs	Fluorene	86-73-7	16 / 57	0.71 J Z	3.9	0.67 - 71	1.7 - 180	µg/kg	7_DG-519	LL	8270D SIM	0 - 0.5
PAHs	Indeno(1,2,3-cd)pyrene	193-39-5	33 / 57	0.77 J Z	13	0.67 - 71	1.7 - 180	µg/kg	7_DG-560	LL	8270D SIM	0 - 0.5
				0.77 J Z								
PAHs	Naphthalene	91-20-3	28 / 57	0.88 J Z	8.7	0.67 - 71	1.7 - 180	µg/kg	7_DG-503	LL	8270D SIM	0 - 0.5
PAHs	N-Nitrosodimethylamine	62-75-9	3 / 57	0.81 J Z	3.4	0.67 - 71	1.7 - 180	µg/kg	7_DG-537	LL	8270D SIM	0 - 0.5
PAHs	Phenanthrene	85-01-8	44 / 57	0.68 J Z	63	0.67 - 71	1.7 - 180	µg/kg	7_DG-539	LL	8270D SIM	0 - 0.5
PAHs	Pyrene	129-00-0	51 / 57	0.8 J Z	64	0.67 - 71	1.7 - 180	µg/kg	7_DG-539	LL	8270D SIM	0 - 0.5
PCB/PCTs	Aroclor 1016	12674-11-2	0 / 64	-	-	3.3 - 17	17 - 87	µg/kg	-	-	-	-
PCB/PCTs	Aroclor 1221	11104-28-2	0 / 64	-	-	5.1 - 26	17 - 87	µg/kg	-	-	-	-
PCB/PCTs	Aroclor 1232	11141-16-5	0 / 64	-	-	4.1 - 21	17 - 87	µg/kg	-	-	-	-
PCB/PCTs	Aroclor 1242	53469-21-9	0 / 64	-	-	3.3 - 17	17 - 87	µg/kg	-	-	-	-
PCB/PCTs	Aroclor 1248	12672-29-6	0 / 64	-	-	3.3 - 17	17 - 87	µg/kg	-	-	-	-
PCB/PCTs	Aroclor 1254	11097-69-1	16 / 64	6.7 J Z	430	4.4 - 22	17 - 87	µg/kg	7_DG-518	LL	8082A	0 - 0.5
PCB/PCTs	Aroclor 1260	11096-82-5	4 / 64	5 J Z	280 J S	3.9 - 20	17 - 87	µg/kg	7_DG-517	LL	8082A	0 - 0.5
PCB/PCTs	Aroclor 1262	37324-23-5	0 / 64	-	-	3.3 - 17	17 - 87	µg/kg	-	-	-	-
PCB/PCTs	Aroclor 1268	11100-14-4	0 / 64	-	-	3.3 - 17	17 - 87	µg/kg	-	-	-	-
PCB/PCTs	Aroclor 5432	63496-31-1	0 / 64	-	-	9.9 - 51	33 - 170	µg/kg	-	-	-	-
PCB/PCTs	Aroclor 5442	12642-23-8	0 / 64	-	-	9.9 - 51	33 - 170	µg/kg	-	-	-	-
PCB/PCTs	Aroclor 5460	11126-42-4	14 / 64	16 J S, Z	250 J S	9.9 - 51	33 - 170	µg/kg	7_DG-517	LL	8082A	0 - 0.5
Pesticides	4,4'-DDD	72-54-8	0 / 8	-	-	0.33 - 0.35	1.7 - 1.8	µg/kg	-	-	-	-
Pesticides	4,4'-DDE	72-55-9	5 / 8	0.53 J FD, Z	2.7	0.33 - 1.9	1.7 - 1.9	µg/kg	7_DG-511	LL	8081B	0 - 0.5
Pesticides	4,4'-DDT	50-29-3	6 / 8	0.62 J Z, *#	7 J Q	0.35 - 5.1	1.7 - 5.1	µg/kg	7_DG-513	LL	8081B	0 - 0.5
Pesticides	Aldrin	309-00-2	0 / 8	-	-	0.17 - 0.18	0.84 - 0.87	µg/kg	-	-	-	-
Pesticides	Alpha-Bhc	319-84-6	0 / 8	-	-	0.17 - 0.18	0.84 - 0.87	µg/kg	-	-	-	-
Pesticides	Beta-Bhc	319-85-7	0 / 8	-	-	0.97 - 1	1.9 - 2	µg/kg	-	-	-	-
Pesticides	Chlordane	57-74-9	0 / 8	-	-	4.1 - 8.2	17 - 18	µg/kg	-	-	-	-
Pesticides	Delta-Bhc	319-86-8	0 / 8	-	-	0.46 - 0.47	0.84 - 0.87	µg/kg	-	-	-	-
Pesticides	Dieldrin	60-57-1	0 / 8	-	-	0.33 - 0.6	1.7 - 1.8	µg/kg	-	-	-	-
Pesticides	Endosulfan I	959-98-8	0 / 7	-	-	0.22 - 0.23	0.84 - 0.87	µg/kg	-	-	-	-
Pesticides	Endosulfan II	33213-65-9	0 / 8	-	-	0.33 - 0.35	1.7 - 1.8	µg/kg	-	-	-	-
Pesticides	Endosulfan Sulfate	1031-07-8	0 / 8	-	-	0.33 - 0.35	1.7 - 1.8	µg/kg	-	-	-	-
Pesticides	Endrin	72-20-8	0 / 8	-	-	0.33 - 0.4	1.7 - 1.8	µg/kg	-	-	-	-
Pesticides	Endrin Aldehyde	7421-93-4	0 / 8	-	-	0.33 - 0.35	1.7 - 1.8	µg/kg	-	-	-	-
Pesticides	Endrin Ketone	53494-70-5	0 / 8	-	-	0.61 - 0.63	1.8 - 1.9	µg/kg	-	-	-	-
Pesticides	Gamma-Bhc (Lindane)	58-89-9	0 / 8	-	-	0.17 - 0.18	0.84 - 0.87	µg/kg	-	-	-	-

Group	Chemical	CAS No	Detection Frequency	Minimum Concentration	Maximum Concentration	Range of Method Detection Limit	Range of Method Reporting Limit	Unit	Location of Maximum Concentration	Laboratory of Maximum Concentration	Method of Maximum Concentration	Depth of Maximum Concentration
Pesticides	Heptachlor	76-44-8	1 / 8	0.18 J Z	0.18 J Z	0.17 - 0.3	0.84 - 0.87	µg/kg	7_DG-511	LL	8081B	0 - 0.5
Pesticides	Heptachlor Epoxide	1024-57-3	0 / 8	-	-	0.17 - 0.54	0.84 - 0.87	µg/kg	-	-	-	-
Pesticides	Methoxychlor	72-43-5	0 / 8	-	-	1.7 - 1.8	6.8 - 7	µg/kg	-	-	-	-
Pesticides	Mirex	2385-85-5	1 / 8	0.63 J Z	0.63 J Z	0.35 - 0.37	1.7 - 1.8	µg/kg	7_DG-513	LL	8081B	0 - 0.5
Pesticides	Technical Toxaphene	8001-35-2	0 / 8	-	-	12 - 15	33 - 35	µg/kg	-	-	-	-
pH	pH	pH	56 / 56	5.94	8.34	0.01 - 0.01	0.01 - 0.01	pH	7_DG-542	LL	9045M	0 - 0.5
TPH-EFH	EFH (C12-C14)	PHCC12C14	1 / 57	2.5 J FD, Q, Z	2.5 J FD, Q, Z	2 - 430	5.1 - 1100	mg/kg	7_DG-519	LL	8015M	0 - 0.5
TPH-EFH	EFH (C15-C20)	PHCC15C20	18 / 57	2.1 J Z	14	2 - 430	5.1 - 1100	mg/kg	7_DG-519	LL	8015M	0 - 0.5
TPH-EFH	EFH (C21-C30)	PHCC21C30	56 / 57	3 J Z	2100	2 - 430	5.1 - 1100	mg/kg	7_DG-555	LL	8015M	0 - 0.5
TPH-EFH	EFH (C30-C40)	PHCC30C40	56 / 57	4.8 J Z	5100	4 - 860	10 - 2100	mg/kg	7_DG-555	LL	8015M	0 - 0.5
TPH-EFH	EFH (C8-C11)	PHCC8C11	1 / 57	3 J FD, Q, Z	3 J FD, Q, Z	2 - 430	5.1 - 1100	mg/kg	7_DG-519	LL	8015M	0 - 0.5

Notes
LL - Eurofins Lancaster Laboratory
µg/kg- microgram per kilogram
mg/kg - milligram per kilogram
ng/kg - nanogram per kilogram
J - Result is an estimated value
% - percent
CAS = chemical abstract service
TPH = total petroleum hydrocarbon
GRO = gasoline range organic
EFH = extractable fuel hydrocarbon
EMPC = estimated maximum possible concentration
Q - Matrix spike recoveries outside of criteria
E - Laboratory control sample and or matrix spike relative percent differences outside of criteria
S - Surrogates outside of criteria
A - Serial dilution results outside of criteria
Z - Analytes reported below the reporting limits and above the method detection limit
FD - Field duplicate relative percent difference outside of criteria
*# - Unusual problems found with the quality control data. See validation reports in Appendix C for detail
Minimum concentration values for dioxins may be EMPC values.

Group	Chemical	CAS No	Detection Frequency	Minimum Concentration	Maximum Concentration	Range of Method Detection Limit	Range of Method Reporting Limit	Unit	Location of Maximum Concentration	Laboratory of Maximum Concentration	Method of Maximum Concentration	Depth of Maximum Concentration
Dioxins	1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	35822-46-9	17 / 21	0.397 J Z	215	0.0165 - 0.0993	5.01 - 5.58	ng/kg	7_DG-562	LL	1613B	2 - 3
Dioxins	1,2,3,4,6,7,8-HPCDF	67562-39-4	11 / 21	0.304 J Z	27.1	0.00688 - 0.0571	5.01 - 5.58	ng/kg	7_DG-562	LL	1613B	2 - 3
Dioxins	1,2,3,4,7,8,9-HPCDF	55673-89-7	5 / 21	0.166 J Z	1.64 J Z	0.0101 - 0.0705	5.01 - 5.58	ng/kg	7_DG-562	LL	1613B	2 - 3
Dioxins	1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	39227-28-6	15 / 21	0.0312 J Z	1.54 J Z	0.0171 - 0.0601	5.01 - 5.58	ng/kg	7_DG-562	LL	1613B	2 - 3
Dioxins	1,2,3,4,7,8-HXCDF	70648-26-9	3 / 21	0.235 J Z	1.77 J Z	0.00876 - 0.0604	5.01 - 5.58	ng/kg	7_DG-562	LL	1613B	2 - 3
Dioxins	1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	57653-85-7	13 / 21	0.0768 J Z	7.59	0.017 - 0.062	5.01 - 5.58	ng/kg	7_DG-562	LL	1613B	2 - 3
Dioxins	1,2,3,6,7,8-HXCDF	57117-44-9	6 / 21	0.114 J Z	1.49 J Z	0.00854 - 0.0594	5.01 - 5.58	ng/kg	7_DG-562	LL	1613B	2 - 3
Dioxins	1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	19408-74-3	10 / 21	0.108 J Z	3.27 J Z	0.0165 - 0.058	5.01 - 5.58	ng/kg	7_DG-562	LL	1613B	2 - 3
Dioxins	1,2,3,7,8,9-HXCDF	72918-21-9	4 / 21	0.0426 J Z	0.745 J Z	0.0093 - 0.0617	5.01 - 5.58	ng/kg	7_DG-562	LL	1613B	2 - 3
Dioxins	1,2,3,7,8-Pentachlorodibenzofuran	57117-41-6	8 / 21	0.203 J Z	1.81 J Z	0.00984 - 0.0669	5.01 - 5.58	ng/kg	7_DG-525	LL	1613B	6.5 - 7.5
Dioxins	1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	40321-76-4	11 / 21	0.0562 J Z	0.735 J Z	0.0179 - 0.107	5.01 - 5.58	ng/kg	7_DG-562	LL	1613B	2 - 3
Dioxins	2,3,4,6,7,8-HXCDF	60851-34-5	7 / 21	0.168 J Z	1.52 J Z	0.00843 - 0.0604	5.01 - 5.58	ng/kg	7_DG-562	LL	1613B	2 - 3
Dioxins	2,3,4,7,8-PECDF	57117-31-4	8 / 21	0.0855 J Z	1.79 J Z	0.00919 - 0.0634	5.01 - 5.58	ng/kg	7_DG-562	LL	1613B	2 - 3
Dioxins	2,3,7,8-TCDD	1746-01-6	6 / 21	0.029 J Z	0.116 J Z	0.0165 - 0.133	1 - 1.12	ng/kg	7_DG-562	LL	1613B	2 - 3
Dioxins	2,3,7,8-Tetrachlorodibenzofuran	51207-31-9	13 / 21	0.0189 J Z	0.83 J Z	0.0139 - 0.106	1 - 1.12	ng/kg	7_DG-562	LL	1613B	2 - 3
Dioxins	OCDD	3268-87-9	21 / 21	1.4 J Z	2660	0.0168 - 0.105	10 - 11.2	ng/kg	7_DG-562	LL	1613B	2 - 3
Dioxins	OCDF	39001-02-0	11 / 21	0.47 J Z	47	0.0178 - 0.0817	10 - 11.2	ng/kg	7_DG-562	LL	1613B	2 - 3
Mercury	Mercury	7439-97-6	12 / 21	0.0108 J Z	0.0254	0.0098 - 0.0111	0.0163 - 0.0214	mg/kg	7_DG-519	LL	7471B	2 - 3
Metals	Aluminum	7429-90-5	21 / 21	9070	30600	7.43 - 8.48	39.5 - 44	mg/kg	7_DG-560	LL	6010C	3 - 4
Metals	Antimony	7440-36-0	16 / 21	0.557 J Q, Z	2.55 J Q, Z	0.494 - 0.763	3.95 - 4.4	mg/kg	7_DG-560	LL	6010C	3 - 4
Metals	Arsenic	7440-38-2	21 / 21	2.06 J Z	6.72	0.326 - 0.722	3.95 - 4.4	mg/kg	7_DG-526	LL	6010C	9 - 10
Metals	Barium	7440-39-3	21 / 21	41.6	132	0.0326 - 0.0363	0.987 - 1.1	mg/kg	7_DG-560	LL	6010C	3 - 4
Metals	Beryllium	7440-41-7	20 / 21	0.415 J Z	1.01 J Z	0.0661 - 0.0737	0.987 - 1.1	mg/kg	7_DG-560	LL	6010C	3 - 4
Metals	Boron	7440-42-8	13 / 21	1.47 J Z	7.47 J Z	0.819 - 0.913	9.87 - 11	mg/kg	7_DG-532	LL	6010C	3 - 4
Metals	Cadmium	7440-43-9	20 / 21	0.0757 J Z	0.736 J Z	0.0326 - 0.0784	0.987 - 1.1	mg/kg	7_DG-560	LL	6010C	3 - 4
Metals	Calcium	7440-70-2	21 / 21	1720	12600	3.44 - 4.42	19.7 - 22	mg/kg	7_DG-560	LL	6010C	3 - 4
Metals	Chromium	7440-47-3	21 / 21	14.7	38.8	0.0869 - 0.165	2.96 - 3.3	mg/kg	7_DG-532	LL	6010C	3 - 4
Metals	Cobalt	7440-48-4	21 / 21	3.89 J E	10.5	0.0888 - 0.102	0.987 - 1.1	mg/kg	7_DG-560	LL	6010C	3 - 4
Metals	Copper	7440-50-8	21 / 21	4.08	17	0.178 - 0.936	1.97 - 10.4	mg/kg	7_DG-560	LL	6010C	3 - 4
Metals	Iron	7439-89-6	21 / 21	15900	30900	3.73 - 20.9	39.5 - 220	mg/kg	7_DG-560	LL	6010C	3 - 4
Metals	Lead	7439-92-1	21 / 21	3.39	15.8 J E, Q	0.464 - 0.517	2.96 - 3.3	mg/kg	7_DG-562	LL	6010C	2 - 3
Metals	Lithium	7439-93-2	21 / 21	17.6	37.3	0.35 - 0.61	3.9 - 4.4	mg/kg	7_DG-532	LL	6010C	3 - 4
Metals	Magnesium	7439-95-4	21 / 21	3220	8940	1.71 - 1.9	9.87 - 11	mg/kg	7_DG-532	LL	6010C	3 - 4
Metals	Manganese	7439-96-5	21 / 21	171	493	0.0819 - 0.0913	0.987 - 1.1	mg/kg	7_DG-560	LL	6010C	3 - 4
Metals	Molybdenum	7439-98-7	0 / 21	-	-	0.168 - 0.187	1.97 - 2.2	mg/kg	-	-	-	-
Metals	Nickel	7440-02-0	21 / 21	5.91	22.7	0.109 - 0.134	1.97 - 2.2	mg/kg	7_DG-532	LL	6010C	3 - 4
Metals	Phosphorus	7723-14-0	21 / 21	121	531 J Q	0.503 - 2.98	9.87 - 11	mg/kg	7_DG-535	LL	6010C	4 - 5
Metals	Potassium	9/7/7440	21 / 21	1140 J Q	4110 J Q	8.6 - 14.9	98.7 - 110	mg/kg	7_DG-560	LL	6010C	3 - 4
Metals	Selenium	7782-49-2	12 / 21	0.103 J Z	0.414	0.0987 - 0.11	0.395 - 0.44	mg/kg	7_DG-533	LL	6020A	2.5 - 3.5
Metals	Silver	7440-22-4	14 / 21	0.0224 J Z	0.0854 J Z	0.0197 - 0.0268	0.197 - 0.22	mg/kg	7_DG-558	LL	6020A	3 - 4
Metals	Sodium	7440-23-5	16 / 21	61.3 J Z	123	16.5 - 18.4	98.7 - 110	mg/kg	7_DG-524	LL	6010C	1 - 2
Metals	Strontium	7440-24-6	21 / 21	11.3 J Q	42.8	0.0336 - 0.0701	0.395 - 0.44	mg/kg	7_DG-560	LL	6020A	3 - 4
Metals	Thallium	7440-28-0	21 / 21	0.176 J Z 0.176 J Z	0.352	0.0296 - 0.033	0.197 - 0.22	mg/kg	7_DG-532	LL	6020A	3 - 4
Metals	Tin	7440-31-5	0 / 21	-	-	0.217 - 0.242	9.87 - 11	mg/kg	-	-	-	-
Metals	Titanium	7440-32-6	21 / 21	833	1740	0.168 - 0.187	0.987 - 1.1	mg/kg	7_DG-532	LL	6010C	3 - 4
Metals	Vanadium	7440-62-2	21 / 21	27.6	69	0.109 - 0.134	0.987 - 1.1	mg/kg	7_DG-560	LL	6010C	3 - 4
Metals	Zinc	7440-66-6	21 / 21	34.8	129	0.197 - 0.22	3.95 - 4.4	mg/kg	7_DG-562	LL	6010C	2 - 3
Metals	Zirconium	7440-67-7	17 / 21	1.05 J Z	4.08 J Z	0.819 - 0.913	4.94 - 5.5	mg/kg	7_DG-560	LL	6010C	3 - 4
Moisture Content	Moisture	MOIST	21 / 21	2.6	10.9	0.1 - 0.1	0.1 - 0.1	%	7_DG-560	LL	160.3M	3 - 4
PAHs	1-Methylnaphthalene	90-12-0	2 / 21	0.73 J Z	560	0.68 - 7	1.7 - 17	µg/kg	7_DG-559	LL	8270D SIM	2 - 3
PAHs	2-Methylnaphthalene	91-57-6	3 / 21	0.96 J Z	690	0.68 - 7	1.7 - 17	µg/kg	7_DG-559	LL	8270D SIM	2 - 3
PAHs	Acenaphthene	83-32-9	1 / 21	7.8 J Z	7.8 J Z	0.68 - 7	1.7 - 17	µg/kg	7_DG-559	LL	8270D SIM	2 - 3
PAHs	Acenaphthylene	208-96-8	1 / 21	9.2 J Z	9.2 J Z	0.34 - 3.5	1.7 - 17	µg/kg	7_DG-559	LL	8270D SIM	2 - 3
PAHs	Anthracene	120-12-7	1 / 21	0.68 J Z	0.68 J Z	0.34 - 3.5	1.7 - 17	µg/kg	7_DG-519	LL	8270D SIM	2 - 3
PAHs	Benzo(a)anthracene	56-55-3	4 / 21	0.98 J Z	7.9 J Z	0.68 - 7	1.7 - 17	µg/kg	7_DG-562	LL	8270D SIM	2 - 3
PAHs	Benzo(a)pyrene	50-32-8	5 / 21	0.85 J Z	28	0.68 - 7	1.7 - 17	µg/kg	7_DG-562	LL	8270D SIM	2 - 3

Table 3-2
Summary of Analytical Results for Chemicals – Validated Data
Subsurface Soils – Subarea 7 – Phase 3

Group	Chemical	CAS No	Detection Frequency	Minimum Concentration	Maximum Concentration	Range of Method Detection Limit	Range of Method Reporting Limit	Unit	Location of Maximum Concentration	Laboratory of Maximum Concentration	Method of Maximum Concentration	Depth of Maximum Concentration
PAHs	Benzo(b)fluoranthene	205-99-2	7 / 21	1 J Z	39	0.68 - 7	1.7 - 17	µg/kg	7_DG-562	LL	8270D SIM	2 - 3
PAHs	Benzo(e)pyrene	192-97-2	3 / 21	4.1 J Z	100 J Z	3.4 - 35	17 - 180	µg/kg	7_DG-562	LL	8270D SIM	2 - 3
PAHs	Benzo(g,h,i)perylene	191-24-2	5 / 21	0.74 J Z	40	0.68 - 7	1.7 - 17	µg/kg	7_DG-562	LL	8270D SIM	2 - 3
PAHs	Benzo(k)fluoranthene	207-08-9	7 / 21	0.77 J Z	46	0.68 - 7	1.7 - 17	µg/kg	7_DG-562	LL	8270D SIM	2 - 3
PAHs	Bis(2-ethylhexyl)phthalate	117-81-7	6 / 21	6.6 J Z	150 J Z	6.1 - 63	18 - 190	µg/kg	7_DG-562	LL	8270D SIM	2 - 3
PAHs	Butylbenzylphthalate	85-68-7	1 / 21	7.9 J Z	7.9 J Z	6.1 - 63	18 - 190	µg/kg	7_DG-525	LL	8270D SIM	6.5 - 7.5
PAHs	Chrysene	218-01-9	13 / 21	0.42 J Z	39	0.34 - 3.5	1.7 - 17	µg/kg	7_DG-562	LL	8270D SIM	2 - 3
PAHs	Dibenzo(a,h)anthracene	53-70-3	2 / 21	0.75 J FD, Z	17	0.68 - 7	1.7 - 17	µg/kg	7_DG-562	LL	8270D SIM	2 - 3
PAHs	Diethylphthalate	84-66-2	0 / 21	-	-	6.1 - 63	18 - 190	µg/kg	-	-	-	-
PAHs	Dimethylphthalate	131-11-3	0 / 21	-	-	6.1 - 63	18 - 190	µg/kg	-	-	-	-
PAHs	Di-n-butylphthalate	84-74-2	1 / 21	24 J Q	24 J Q	6.1 - 63	18 - 190	µg/kg	7_DG-558	LL	8270D SIM	3 - 4
PAHs	Di-n-octylphthalate	117-84-0	0 / 21	-	-	6.1 - 63	18 - 190	µg/kg	-	-	-	-
PAHs	Fluoranthene	206-44-0	8 / 21	0.72 J Z	15 J Z	0.68 - 7	1.7 - 17	µg/kg	7_DG-562	LL	8270D SIM	2 - 3
PAHs	Fluorene	86-73-7	4 / 21	0.86 J Z	28	0.68 - 7	1.7 - 17	µg/kg	7_DG-559	LL	8270D SIM	2 - 3
PAHs	Indeno(1,2,3-cd)pyrene	193-39-5	3 / 21	0.91 J Z	15 J Z	0.68 - 7	1.7 - 17	µg/kg	7_DG-562	LL	8270D SIM	2 - 3
PAHs	Naphthalene	91-20-3	6 / 21	0.95 J Z	200	0.68 - 7	1.7 - 17	µg/kg	7_DG-559	LL	8270D SIM	2 - 3
PAHs	N-Nitrosodimethylamine	62-75-9	0 / 21	-	-	0.68 - 7	1.7 - 17	µg/kg	-	-	-	-
PAHs	Phenanthrene	85-01-8	5 / 21	0.84 J Z	16 J Z	0.68 - 7	1.7 - 17	µg/kg	7_DG-559	LL	8270D SIM	2 - 3
PAHs	Pyrene	129-00-0	7 / 21	0.74 J Z	13 J Z	0.68 - 7	1.7 - 17	µg/kg	7_DG-562	LL	8270D SIM	2 - 3
PCB/PCTs	Aroclor 1016	12674-11-2	0 / 21	-	-	3.3 - 3.6	17 - 19	µg/kg	-	-	-	-
PCB/PCTs	Aroclor 1221	11104-28-2	0 / 21	-	-	5.2 - 5.6	17 - 19	µg/kg	-	-	-	-
PCB/PCTs	Aroclor 1232	11141-16-5	0 / 21	-	-	4.1 - 4.5	17 - 19	µg/kg	-	-	-	-
PCB/PCTs	Aroclor 1242	53469-21-9	0 / 21	-	-	3.3 - 4.4	17 - 19	µg/kg	-	-	-	-
PCB/PCTs	Aroclor 1248	12672-29-6	0 / 21	-	-	3.3 - 3.6	17 - 19	µg/kg	-	-	-	-
PCB/PCTs	Aroclor 1254	11097-69-1	3 / 21	8.3 J S, Z	14 J Z	4.4 - 4.9	17 - 19	µg/kg	7_DG-525	LL	8082A	6.5 - 7.5
PCB/PCTs	Aroclor 1260	11096-82-5	1 / 21	9.5 J Z	9.5 J Z	3.9 - 4.3	17 - 19	µg/kg	7_DG-525	LL	8082A	4 - 5
PCB/PCTs	Aroclor 1262	37324-23-5	0 / 21	-	-	3.3 - 3.6	17 - 19	µg/kg	-	-	-	-
PCB/PCTs	Aroclor 1268	11100-14-4	0 / 21	-	-	3.3 - 3.6	17 - 19	µg/kg	-	-	-	-
PCB/PCTs	Aroclor 5432	63496-31-1	0 / 21	-	-	10 - 11	33 - 36	µg/kg	-	-	-	-
PCB/PCTs	Aroclor 5442	12642-23-8	0 / 21	-	-	10 - 11	33 - 36	µg/kg	-	-	-	-
PCB/PCTs	Aroclor 5460	11126-42-4	2 / 21	13 J S, Z	15 J Z	10 - 11	33 - 36	µg/kg	7_DG-559	LL	8082A	2 - 3
Pesticides	4,4'-DDD	72-54-8	0 / 1	-	-	0.35 - 0.35	1.8 - 1.8	µg/kg	-	-	-	-
Pesticides	4,4'-DDE	72-55-9	0 / 1	-	-	1.5 - 1.5	1.8 - 1.8	µg/kg	-	-	-	-
Pesticides	4,4'-DDT	50-29-3	1 / 1	4	4	0.37 - 0.37	1.8 - 1.8	µg/kg	7_DG-504	LL	8081B	4 - 5
Pesticides	Aldrin	309-00-2	0 / 1	-	-	0.18 - 0.18	0.88 - 0.88	µg/kg	-	-	-	-
Pesticides	Alpha-Bhc	319-84-6	0 / 1	-	-	0.31 - 0.31	0.88 - 0.88	µg/kg	-	-	-	-
Pesticides	Beta-Bhc	319-85-7	0 / 1	-	-	1 - 1	2 - 2	µg/kg	-	-	-	-
Pesticides	Chlordane	57-74-9	0 / 1	-	-	4.2 - 4.2	18 - 18	µg/kg	-	-	-	-
Pesticides	Delta-Bhc	319-86-8	0 / 1	-	-	0.48 - 0.48	0.88 - 0.88	µg/kg	-	-	-	-
Pesticides	Dieldrin	60-57-1	0 / 1	-	-	0.72 - 0.72	1.8 - 1.8	µg/kg	-	-	-	-
Pesticides	Endosulfan I	959-98-8	0 / 1	-	-	0.23 - 0.23	0.88 - 0.88	µg/kg	-	-	-	-
Pesticides	Endosulfan II	33213-65-9	0 / 1	-	-	0.35 - 0.35	1.8 - 1.8	µg/kg	-	-	-	-
Pesticides	Endosulfan Sulfate	1031-07-8	0 / 1	-	-	0.35 - 0.35	1.8 - 1.8	µg/kg	-	-	-	-
Pesticides	Endrin	72-20-8	0 / 1	-	-	0.35 - 0.35	1.8 - 1.8	µg/kg	-	-	-	-
Pesticides	Endrin Aldehyde	7421-93-4	0 / 1	-	-	0.35 - 0.35	1.8 - 1.8	µg/kg	-	-	-	-
Pesticides	Endrin Ketone	53494-70-5	0 / 1	-	-	0.63 - 0.63	1.9 - 1.9	µg/kg	-	-	-	-
Pesticides	Gamma-Bhc (Lindane)	58-89-9	0 / 1	-	-	0.18 - 0.18	0.88 - 0.88	µg/kg	-	-	-	-
Pesticides	Heptachlor	76-44-8	0 / 1	-	-	0.18 - 0.18	0.88 - 0.88	µg/kg	-	-	-	-
Pesticides	Heptachlor Epoxide	1024-57-3	0 / 1	-	-	0.65 - 0.65	0.88 - 0.88	µg/kg	-	-	-	-
Pesticides	Methoxychlor	72-43-5	0 / 1	-	-	1.8 - 1.8	7.1 - 7.1	µg/kg	-	-	-	-
Pesticides	Mirex	2385-85-5	0 / 1	-	-	0.37 - 0.37	1.8 - 1.8	µg/kg	-	-	-	-
Pesticides	Technical Toxaphene	8001-35-2	0 / 1	-	-	15 - 15	35 - 35	µg/kg	-	-	-	-
pH	pH	pH	21 / 21	6.4	8.27	0.01 - 0.01	0.01 - 0.01	pH	7_DG-541	LL	9045M	2 - 3
TPH-EFH	EFH (C12-C14)	PHCC12C14	0 / 21	-	-	2.1 - 42	5.1 - 110	mg/kg	-	-	-	-
TPH-EFH	EFH (C15-C20)	PHCC15C20	5 / 21	2.3 J Z	9.2	2.1 - 42	5.1 - 110	mg/kg	7_DG-519	LL	8015M	2 - 3
TPH-EFH	EFH (C21-C30)	PHCC21C30	16 / 21	2.6 J Z	84 J Z	2.1 - 42	5.1 - 110	mg/kg	7_DG-559	LL	8015M	2 - 3
TPH-EFH	EFH (C30-C40)	PHCC30C40	17 / 21	5.6 J Z	420	4.1 - 84	10 - 210	mg/kg	7_DG-559	LL	8015M	2 - 3
TPH-EFH	EFH (C8-C11)	PHCC8C11	0 / 21	-	-	2.1 - 42	5.1 - 110	mg/kg	-	-	-	-

Group	Chemical	CAS No	Detection Frequency	Minimum Concentration	Maximum Concentration	Range of Method Detection Limit	Range of Method Reporting Limit	Unit	Location of Maximum Concentration	Laboratory of Maximum Concentration	Method of Maximum Concentration	Depth of Maximum Concentration
TPH-GRO	Gasoline Range Organics (C5-C12)	GROC5C12	2 / 21	0.3 J Z	1.4	0.2 - 0.3	0.9 - 1.6	mg/kg	7_DG-519	LL	8015M	2 - 3

Notes
LL - Eurofins Lancaster Laboratory
µg/kg- microgram per kilogram
mg/kg - milligram per kilogram
ng/kg - nanogram per kilogram
J - Result is an estimated value
% - percent
CAS = chemical abstract service
TPH = total petroleum hydrocarbon
GRO = gasoline range organic
EFH = extractable fuel hydrocarbon
EMPC = estimated maximum possible concentration
SIM = selective ion monitoring
E - Laboratory control sample and or matrix spike relative percent differences outside of criteria
S - Surrogates outside of criteria
Q - Matrix spike recoveries outside of criteria
Z - Analytes reported below the reporting limits and above the method detection limit
FD - Field duplicate relative percent difference outside of criteria
*# - Unusual problems found with the quality control data. See validation reports in Appendix C for detail
Minimum concentration values for dioxins may be EMPC values.

Group	Chemical	CAS No	Detection Frequency	Minimum Concentration	Maximum Concentration	Range of Method Detection Limit	Range of Method Reporting Limit	Unit	Location of Maximum Concentration	Laboratory of Maximum Concentration	Method of Maximum Concentration	Depth of Maximum Concentration
Dioxins	1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	35822-46-9	74 / 79	0.397 J Z	2000 J *#	0.0139 - 0.223	4.85 - 5.58	ng/kg	7_DG-505	LL	1613B	0 - 0.5
Dioxins	1,2,3,4,6,7,8-HPCDF	67562-39-4	68 / 79	0.247 J Z	101	0.00688 - 0.0684	4.85 - 5.58	ng/kg	7_DG-505	LL	1613B	0 - 0.5
Dioxins	1,2,3,4,7,8,9-HPCDF	55673-89-7	47 / 79	0.0981 J Z	12.2	0.0101 - 0.0792	4.85 - 5.58	ng/kg	7_DG-505	LL	1613B	0 - 0.5
Dioxins	1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	39227-28-6	66 / 79	0.0312 J Z	3660 J *#	0.017 - 0.114	4.85 - 5.58	ng/kg	7_DG-505	LL	1613B	0 - 0.5
Dioxins	1,2,3,4,7,8-HXCDF	70648-26-9	45 / 79	0.117 J Z	6.59	0.00876 - 0.0764	4.85 - 5.58	ng/kg	7_DG-505	LL	1613B	0 - 0.5
Dioxins	1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	57653-85-7	70 / 79	0.0704 J Z	54.8	0.017 - 0.128	4.85 - 5.58	ng/kg	7_DG-505	LL	1613B	0 - 0.5
Dioxins	1,2,3,6,7,8-HXCDF	57117-44-9	54 / 79	0.0854 J Z	7.55	0.00854 - 0.0745	4.85 - 5.58	ng/kg	7_DG-505	LL	1613B	0 - 0.5
Dioxins	1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	19408-74-3	62 / 79	0.108 J Z	18.1	0.0165 - 0.118	4.85 - 5.58	ng/kg	7_DG-505	LL	1613B	0 - 0.5
Dioxins	1,2,3,7,8,9-HXCDF	72918-21-9	24 / 79	0.0426 J Z	1.07 J Z	0.0093 - 0.101	4.85 - 5.58	ng/kg	7_DG-561	LL	1613B	0 - 0.5
Dioxins	1,2,3,7,8-Pentachlorodibenzofuran	57117-41-6	47 / 79	0.203 J Z	18	0.00936 - 0.0771	4.85 - 5.58	ng/kg	7_DG-517	LL	1613B	0 - 0.5
Dioxins	1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	40321-76-4	50 / 79	0.039 J Z	15.9	0.0158 - 0.107	4.85 - 5.58	ng/kg	7_DG-505	LL	1613B	0 - 0.5
Dioxins	2,3,4,6,7,8-HXCDF	60851-34-5	52 / 79	0.0959 J Z	9.07	0.00843 - 0.0853	4.85 - 5.58	ng/kg	7_DG-505	LL	1613B	0 - 0.5
Dioxins	2,3,4,7,8-PECDF	57117-31-4	51 / 79	0.0636 J Z	3.48 J Z	0.00892 - 0.0678	4.85 - 5.58	ng/kg	7_DG-514	LL	1613B	0 - 0.5
Dioxins	2,3,7,8-TCDD	1746-01-6	40 / 79	0.0231 J Z	4.35	0.0165 - 0.148	0.971 - 1.12	ng/kg	7_DG-505	LL	1613B	0 - 0.5
Dioxins	2,3,7,8-Tetrachlorodibenzofuran	51207-31-9	64 / 79	0.0189 J Z	3.69	0.0139 - 0.122	0.971 - 1.12	ng/kg	7_DG-517	LL	1613B	0 - 0.5
Dioxins	OCDD	3268-87-9	78 / 79	1.4 J Z	23100 J *#	0.0134 - 0.134	9.71 - 11.2	ng/kg	7_DG-505	LL	1613B	0 - 0.5
Dioxins	OCDF	39001-02-0	67 / 79	0.47 J Z	177	0.0157 - 0.151	9.71 - 11.2	ng/kg	7_DG-505	LL	1613B	0 - 0.5
Formaldehyde	Formaldehyde	50-00-0	0 / 1	-	-	1200 - 1200	2100 - 2100	µg/kg	-	-	-	-
Hexavalent Chromium	Chromium (Hexavalent Compounds)	18540-29-9	1 / 1	0.37 J Z	0.37 J Z	0.15 - 0.15	0.42 - 0.42	mg/kg	7_DG-540	LL	7199	0 - 0.5
Mercury	Mercury	7439-97-6	59 / 78	0.0108 J Z 0.0108 J Z	0.414	0.0095 - 0.0111	0.0158 - 0.0214	mg/kg	7_DG-508	LL	7471B	0 - 0.5
Metals	Aluminum	7429-90-5	78 / 78	8670	30600	7.43 - 8.48	39.2 - 44	mg/kg	7_DG-560	LL	6010C	3 - 4
Metals	Antimony	7440-36-0	45 / 78	0.545 J Q, Z	4.63 J FD, Q	0.49 - 0.783	3.92 - 4.4	mg/kg	7_DG-519	LL	6010C	0 - 0.5
Metals	Arsenic	7440-38-2	78 / 78	1.55 J Z	9.73	0.323 - 0.741	3.92 - 4.4	mg/kg	7_DG-500	LL	6010C	0 - 0.5
Metals	Barium	7440-39-3	78 / 78	41.6	132	0.0323 - 0.0363	0.979 - 1.1	mg/kg	7_DG-560	LL	6010C	3 - 4
Metals	Beryllium	7440-41-7	69 / 78	0.378 J Z	1.01 J Z	0.0656 - 0.0737	0.979 - 1.1	mg/kg	7_DG-560	LL	6010C	3 - 4
Metals	Boron	7440-42-8	34 / 78	1.47 J Z	7.47 J Z	0.813 - 0.913	9.79 - 11	mg/kg	7_DG-532	LL	6010C	3 - 4
Metals	Cadmium	7440-43-9	68 / 78	0.0439 J Z	1.19 J FD	0.0323 - 0.0804	0.979 - 1.1	mg/kg	7_DG-519	LL	6010C	0 - 0.5
Metals	Calcium	7440-70-2	78 / 78	1360 J E	12600	3.44 - 4.42	19.6 - 22	mg/kg	7_DG-560	LL	6010C	3 - 4
Metals	Chromium	7440-47-3	78 / 78	9.62	38.8	0.0862 - 0.169	2.94 - 3.3	mg/kg	7_DG-532	LL	6010C	3 - 4
Metals	Cobalt	7440-48-4	78 / 78	3.19	10.8	0.0881 - 0.105	0.979 - 1.1	mg/kg	7_DG-518	LL	6010C	0 - 0.5
Metals	Copper	7440-50-8	78 / 78	3.54	20.8	0.176 - 0.936	1.96 - 10.4	mg/kg	7_DG-508	LL	6010C	0 - 0.5
Metals	Iron	7439-89-6	78 / 78	14000	30900	3.72 - 20.9	39.2 - 220	mg/kg	7_DG-560	LL	6010C	3 - 4
Metals	Lead	7439-92-1	78 / 78	3.39	30.2	0.46 - 0.529	2.94 - 3.3	mg/kg	7_DG-560	LL	6010C	0 - 0.5
Metals	Lithium	7439-93-2	78 / 78	12	37.3	0.35 - 0.61	3.9 - 4.4	mg/kg	7_DG-532	LL	6010C	3 - 4
Metals	Magnesium	7439-95-4	78 / 78	2600	8940	1.69 - 1.9	9.79 - 11	mg/kg	7_DG-532	LL	6010C	3 - 4
Metals	Manganese	7439-96-5	78 / 78	171	560	0.0813 - 0.0913	0.979 - 1.1	mg/kg	7_DG-561	LL	6010C	0 - 0.5
Metals	Molybdenum	7439-98-7	2 / 78	0.403 J Z	2.79 J FD	0.166 - 0.187	1.96 - 2.2	mg/kg	7_DG-519	LL	6010C	0 - 0.5
Metals	Nickel	7440-02-0	78 / 78	5.31	22.7	0.108 - 0.138	1.96 - 2.2	mg/kg	7_DG-532	LL	6010C	3 - 4
Metals	Phosphorus	7723-14-0	78 / 78	121	679 J E, A	0.499 - 3.06	9.79 - 11	mg/kg	7_DG-519	LL	6010C	0 - 0.5
Metals	Potassium	9/7/7440	78 / 78	1140 J Q	4520 J Q	8.6 - 14.9	97.9 - 110	mg/kg	7_DG-518	LL	6010C	0 - 0.5
Metals	Selenium	7782-49-2	45 / 78	0.102 J FD, Z	0.572	0.0979 - 0.11	0.392 - 0.44	mg/kg	7_DG-541	LL	6020A	0 - 0.5
Metals	Silver	7440-22-4	61 / 78	0.0205 J Z	0.0918 J Z	0.0196 - 0.0275	0.196 - 0.22	mg/kg	7_DG-518	LL	6020A	0 - 0.5
Metals	Sodium	7440-23-5	57 / 78	53 J Z	319	16.4 - 18.4	97.9 - 110	mg/kg	7_DG-516	LL	6010C	0 - 0.5
Metals	Strontium	7440-24-6	78 / 78	7.03 J Q	42.8	0.0333 - 0.18	0.392 - 1.06	mg/kg	7_DG-560	LL	6020A	3 - 4
Metals	Thallium	7440-28-0	78 / 78	0.138 J Z	0.398	0.0294 - 0.033	0.196 - 0.22	mg/kg	7_DG-529	LL	6020A	0 - 0.5
Metals	Tin	7440-31-5	1 / 78	10.9 J FD	10.9 J FD	0.215 - 0.242	9.79 - 11	mg/kg	7_DG-519	LL	6010C	0 - 0.5
Metals	Titanium	7440-32-6	78 / 78	713	1740	0.166 - 0.187	0.979 - 1.1	mg/kg	7_DG-532	LL	6010C	3 - 4
Metals	Vanadium	7440-62-2	78 / 78	19	69	0.108 - 0.138	0.979 - 1.1	mg/kg	7_DG-560	LL	6010C	3 - 4
Metals	Zinc	7440-66-6	78 / 78	34.8	129	0.196 - 0.22	3.92 - 4.4	mg/kg	7_DG-562	LL	6010C	2 - 3
Metals	Zirconium	7440-67-7	56 / 78	0.902 J Z	12.5	0.813 - 0.913	4.9 - 5.5	mg/kg	7_DG-517	LL	6010C	0 - 0.5
Moisture Content	Moisture	MOIST	86 / 86	1.1	10.9	0.1 - 0.1	0.1 - 0.1	%	7_DG-560	LL	160.3M	3 - 4
PAHs	1-Methylnaphthalene	90-12-0	19 / 78	0.73 J Z	560	0.67 - 71	1.7 - 180	µg/kg	7_DG-559	LL	8270D SIM	2 - 3
PAHs	2-Methylnaphthalene	91-57-6	29 / 78	0.72 J Z	690	0.67 - 71	1.7 - 180	µg/kg	7_DG-559	LL	8270D SIM	2 - 3
PAHs	Acenaphthene	83-32-9	1 / 78	7.8 J Z	7.8 J Z	0.67 - 71	1.7 - 180	µg/kg	7_DG-559	LL	8270D SIM	2 - 3
PAHs	Acenaphthylene	208-96-8	6 / 78	0.39 J FD, Z	9.2 J Z	0.33 - 36	1.7 - 180	µg/kg	7_DG-559	LL	8270D SIM	2 - 3
PAHs	Anthracene	120-12-7	25 / 78	0.35 J Z	6 J Z	0.33 - 36	1.7 - 180	µg/kg	7_DG-539	LL	8270D SIM	0 - 0.5
PAHs	Benzo(a)anthracene	56-55-3	34 / 78	0.71 J Z	42	0.67 - 71	1.7 - 180	µg/kg	7_DG-560	LL	8270D SIM	0 - 0.5

Table 3-3
Summary of Analytical Results for Chemicals – Validated Data
Combined Soils – Subarea 7 – Phase 3

Group	Chemical	CAS No	Detection Frequency	Minimum Concentration	Maximum Concentration	Range of Method Detection Limit	Range of Method Reporting Limit	Unit	Location of Maximum Concentration	Laboratory of Maximum Concentration	Method of Maximum Concentration	Depth of Maximum Concentration
PAHs	Benzo(a)pyrene	50-32-8	42 / 78	0.71 J Z	41	0.67 - 71	1.7 - 180	µg/kg	7_DG-560	LL	8270D SIM	0 - 0.5
PAHs	Benzo(b)fluoranthene	205-99-2	57 / 78	1 J Z	68	0.67 - 71	1.7 - 180	µg/kg	7_DG-554	LL	8270D SIM	0 - 0.5
PAHs	Benzo(e)pyrene	192-97-2	17 / 78	3.5 J Z	100 J Z	3.3 - 360	17 - 1800	µg/kg	7_DG-562	LL	8270D SIM	2 - 3
PAHs	Benzo(g,h,i)perylene	191-24-2	42 / 78	0.74 J Z	40	0.67 - 71	1.7 - 180	µg/kg	7_DG-562	LL	8270D SIM	2 - 3
PAHs	Benzo(k)fluoranthene	207-08-9	46 / 78	0.75 J Z	52	0.67 - 71	1.7 - 180	µg/kg	7_DG-504	LL	8270D SIM	0 - 0.5
PAHs	Bis(2-ethylhexyl)phthalate	117-81-7	41 / 78	6.3 J Z	610	6 - 640	18 - 1900	µg/kg	7_DG-509	LL	8270D SIM	0 - 0.5
PAHs	Butylbenzylphthalate	85-68-7	11 / 78	6.4 J Z	19	6 - 640	18 - 1900	µg/kg	7_DG-557 7_DG-527	LL LL	8270D SIM 8270D SIM	0 - 0.5 0 - 0.5
PAHs	Chrysene	218-01-9	65 / 78	0.34 J Z	47	0.33 - 36	1.7 - 180	µg/kg	7_DG-560	LL	8270D SIM	0 - 0.5
PAHs	Dibenzo(a,h)anthracene	53-70-3	14 / 78	0.75 J FD, Z	17	0.67 - 71	1.7 - 180	µg/kg	7_DG-562	LL	8270D SIM	2 - 3
PAHs	Diethylphthalate	84-66-2	0 / 78	-	-	6 - 640	18 - 1900	µg/kg	-	-	-	-
PAHs	Dimethylphthalate	131-11-3	0 / 78	-	-	6 - 640	18 - 1900	µg/kg	-	-	-	-
PAHs	Di-n-butylphthalate	84-74-2	5 / 78	7.4 J Z	870	6 - 640	18 - 1900	µg/kg	7_DG-558	LL	8270D SIM	0 - 0.5
PAHs	Di-n-octylphthalate	117-84-0	0 / 78	-	-	6 - 640	18 - 1900	µg/kg	-	-	-	-
PAHs	Fluoranthene	206-44-0	59 / 78	0.72 J Z	82	0.67 - 71	1.7 - 180	µg/kg	7_DG-539	LL	8270D SIM	0 - 0.5
PAHs	Fluorene	86-73-7	20 / 78	0.71 J Z	28	0.67 - 71	1.7 - 180	µg/kg	7_DG-559	LL	8270D SIM	2 - 3
PAHs	Indeno(1,2,3-cd)pyrene	193-39-5	36 / 78	0.77 J Z 0.77 J Z	15 J Z	0.67 - 71	1.7 - 180	µg/kg	7_DG-562	LL	8270D SIM	2 - 3
PAHs	Naphthalene	91-20-3	34 / 78	0.88 J Z	200	0.67 - 71	1.7 - 180	µg/kg	7_DG-559	LL	8270D SIM	2 - 3
PAHs	N-Nitrosodimethylamine	62-75-9	3 / 78	0.81 J Z	3.4	0.67 - 71	1.7 - 180	µg/kg	7_DG-537	LL	8270D SIM	0 - 0.5
PAHs	Phenanthrene	85-01-8	49 / 78	0.68 J Z	63	0.67 - 71	1.7 - 180	µg/kg	7_DG-539	LL	8270D SIM	0 - 0.5
PAHs	Pyrene	129-00-0	58 / 78	0.74 J Z	64	0.67 - 71	1.7 - 180	µg/kg	7_DG-539	LL	8270D SIM	0 - 0.5
PCB/PCTs	Aroclor 1016	12674-11-2	0 / 85	-	-	3.3 - 17	17 - 87	µg/kg	-	-	-	-
PCB/PCTs	Aroclor 1221	11104-28-2	0 / 85	-	-	5.1 - 26	17 - 87	µg/kg	-	-	-	-
PCB/PCTs	Aroclor 1232	11141-16-5	0 / 85	-	-	4.1 - 21	17 - 87	µg/kg	-	-	-	-
PCB/PCTs	Aroclor 1242	53469-21-9	0 / 85	-	-	3.3 - 17	17 - 87	µg/kg	-	-	-	-
PCB/PCTs	Aroclor 1248	12672-29-6	0 / 85	-	-	3.3 - 17	17 - 87	µg/kg	-	-	-	-
PCB/PCTs	Aroclor 1254	11097-69-1	19 / 85	6.7 J Z	430	4.4 - 22	17 - 87	µg/kg	7_DG-518	LL	8082A	0 - 0.5
PCB/PCTs	Aroclor 1260	11096-82-5	5 / 85	5 J Z	280 J S	3.9 - 20	17 - 87	µg/kg	7_DG-517	LL	8082A	0 - 0.5
PCB/PCTs	Aroclor 1262	37324-23-5	0 / 85	-	-	3.3 - 17	17 - 87	µg/kg	-	-	-	-
PCB/PCTs	Aroclor 1268	11100-14-4	0 / 85	-	-	3.3 - 17	17 - 87	µg/kg	-	-	-	-
PCB/PCTs	Aroclor 5432	63496-31-1	0 / 85	-	-	9.9 - 51	33 - 170	µg/kg	-	-	-	-
PCB/PCTs	Aroclor 5442	12642-23-8	0 / 85	-	-	9.9 - 51	33 - 170	µg/kg	-	-	-	-
PCB/PCTs	Aroclor 5460	11126-42-4	16 / 85	13 J S, Z	250 J S	9.9 - 51	33 - 170	µg/kg	7_DG-517	LL	8082A	0 - 0.5
Pesticides	4,4'-DDD	72-54-8	0 / 9	-	-	0.33 - 0.35	1.7 - 1.8	µg/kg	-	-	-	-
Pesticides	4,4'-DDE	72-55-9	5 / 9	0.53 J FD, Z	2.7	0.33 - 1.9	1.7 - 1.9	µg/kg	7_DG-511	LL	8081B	0 - 0.5
Pesticides	4,4'-DDT	50-29-3	7 / 9	0.62 J Z, *#	7 J Q	0.35 - 5.1	1.7 - 5.1	µg/kg	7_DG-513	LL	8081B	0 - 0.5
Pesticides	Aldrin	309-00-2	0 / 9	-	-	0.17 - 0.18	0.84 - 0.88	µg/kg	-	-	-	-
Pesticides	Alpha-Bhc	319-84-6	0 / 9	-	-	0.17 - 0.31	0.84 - 0.88	µg/kg	-	-	-	-
Pesticides	Beta-Bhc	319-85-7	0 / 9	-	-	0.97 - 1	1.9 - 2	µg/kg	-	-	-	-
Pesticides	Chlordane	57-74-9	0 / 9	-	-	4.1 - 8.2	17 - 18	µg/kg	-	-	-	-
Pesticides	Delta-Bhc	319-86-8	0 / 9	-	-	0.46 - 0.48	0.84 - 0.88	µg/kg	-	-	-	-
Pesticides	Dieldrin	60-57-1	0 / 9	-	-	0.33 - 0.72	1.7 - 1.8	µg/kg	-	-	-	-
Pesticides	Endosulfan I	959-98-8	0 / 8	-	-	0.22 - 0.23	0.84 - 0.88	µg/kg	-	-	-	-
Pesticides	Endosulfan II	33213-65-9	0 / 9	-	-	0.33 - 0.35	1.7 - 1.8	µg/kg	-	-	-	-
Pesticides	Endosulfan Sulfate	1031-07-8	0 / 9	-	-	0.33 - 0.35	1.7 - 1.8	µg/kg	-	-	-	-
Pesticides	Endrin	72-20-8	0 / 9	-	-	0.33 - 0.4	1.7 - 1.8	µg/kg	-	-	-	-
Pesticides	Endrin Aldehyde	7421-93-4	0 / 9	-	-	0.33 - 0.35	1.7 - 1.8	µg/kg	-	-	-	-
Pesticides	Endrin Ketone	53494-70-5	0 / 9	-	-	0.61 - 0.63	1.8 - 1.9	µg/kg	-	-	-	-
Pesticides	Gamma-Bhc (Lindane)	58-89-9	0 / 9	-	-	0.17 - 0.18	0.84 - 0.88	µg/kg	-	-	-	-
Pesticides	Heptachlor	76-44-8	1 / 9	0.18 J Z	0.18 J Z	0.17 - 0.3	0.84 - 0.88	µg/kg	7_DG-511	LL	8081B	0 - 0.5
Pesticides	Heptachlor Epoxide	1024-57-3	0 / 9	-	-	0.17 - 0.65	0.84 - 0.88	µg/kg	-	-	-	-
Pesticides	Methoxychlor	72-43-5	0 / 9	-	-	1.7 - 1.8	6.8 - 7.1	µg/kg	-	-	-	-
Pesticides	Mirex	2385-85-5	1 / 9	0.63 J Z	0.63 J Z	0.35 - 0.37	1.7 - 1.8	µg/kg	7_DG-513	LL	8081B	0 - 0.5
Pesticides	Technical Toxaphene	8001-35-2	0 / 9	-	-	12 - 15	33 - 35	µg/kg	-	-	-	-
pH	pH	pH	77 / 77	5.94	8.34	0.01 - 0.01	0.01 - 0.01	pH	7_DG-542	LL	9045M	0 - 0.5
TPH-EFH	EFH (C12-C14)	PHCC12C14	1 / 78	2.5 J FD, Q, Z	2.5 J FD, Q, Z	2 - 430	5.1 - 1100	mg/kg	7_DG-519	LL	8015M	0 - 0.5
TPH-EFH	EFH (C15-C20)	PHCC15C20	23 / 78	2.1 J Z	14	2 - 430	5.1 - 1100	mg/kg	7_DG-519	LL	8015M	0 - 0.5
TPH-EFH	EFH (C21-C30)	PHCC21C30	72 / 78	2.6 J Z	2100	2 - 430	5.1 - 1100	mg/kg	7_DG-555	LL	8015M	0 - 0.5

Group	Chemical	CAS No	Detection Frequency	Minimum Concentration	Maximum Concentration	Range of Method Detection Limit	Range of Method Reporting Limit	Unit	Location of Maximum Concentration	Laboratory of Maximum Concentration	Method of Maximum Concentration	Depth of Maximum Concentration
TPH-EFH	EFH (C30-C40)	PHCC30C40	73 / 78	4.8 J Z	5100	4 - 860	10 - 2100	mg/kg	7_DG-555	LL	8015M	0 - 0.5
TPH-EFH	EFH (C8-C11)	PHCC8C11	1 / 78	3 J FD, Q, Z	3 J FD, Q, Z	2 - 430	5.1 - 1100	mg/kg	7_DG-519	LL	8015M	0 - 0.5
TPH-GRO	Gasoline Range Organics (C5-C12)	GROC5C12	2 / 21	0.3 J Z	1.4	0.2 - 0.3	0.9 - 1.6	mg/kg	7_DG-519	LL	8015M	2 - 3

Notes
LL - Eurofins Lancaster Laboratory
µg/kg- microgram per kilogram
mg/kg - milligram per kilogram
ng/kg - nanogram per kilogram
J - Result is an estimated value
% - percent
CAS = chemical abstract service
TPH = total petroleum hydrocarbon
GRO = gasoline range organic
EFH = extractable fuel hydrocarbon
EMPC = estimated maximum possible concentration
Q - Matrix spike recoveries outside of criteria
SIM = selective ion monitoring
S - Surrogates outside of criteria
A - Serial dilution results outside of criteria
E - Laboratory control sample and or matrix spike relative percent differences outside of criteria
Z - Analytes reported below the reporting limits and above the method detection limit
FD - Field duplicate relative percent difference outside of criteria
*# - Unusual problems found with the quality control data. See validation reports in Appendix C for detail
Minimum concentration values for dioxins may be EMPC values.

Group	Chemical	CAS No	Detection Frequency	Minimum Concentration	Maximum Concentration	Range of Method Detection Limit	Range of Method Reporting Limit	Unit	Location of Maximum Concentration	Laboratory of Maximum Concentration	Method of Maximum Concentration	Depth of Maximum Concentration
Cyanide	Cyanide	57-12-5	0 / 1	-	-	0.19 - 0.19	0.52 - 0.52	mg/kg	-	-	-	-
Dioxins	1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	35822-46-9	18 / 24	0.913 J Z	58.3	0.0203 - 0.0826	4.86 - 5.9	ng/kg	NBZ_DG-541	LL	1613B	0 - 0.5
Dioxins	1,2,3,4,6,7,8-HPCDF	67562-39-4	11 / 24	0.411 J Z	14.5	0.0128 - 0.0511	4.86 - 5.9	ng/kg	NBZ_DG-541	LL	1613B	0 - 0.5
Dioxins	1,2,3,4,7,8,9-HPCDF	55673-89-7	3 / 24	0.654 J FD, Z	1.22 J Z	0.0182 - 0.0795	4.86 - 5.9	ng/kg	NBZ_DG-541	LL	1613B	0 - 0.5
Dioxins	1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	39227-28-6	5 / 24	0.133 J Z	0.404 J Z	0.0254 - 0.0895	4.86 - 5.9	ng/kg	NBZ_DG-542	LL	1613B	0 - 0.5
Dioxins	1,2,3,4,7,8-HXCDF	70648-26-9	5 / 24	0.156 J Z	0.831 J Z	0.0182 - 0.0644	4.86 - 5.9	ng/kg	NBZ_DG-509	LL	1613B	0 - 0.5
Dioxins	1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	57653-85-7	9 / 24	0.144 J Z	2.78 J Z	0.0257 - 0.0902	4.86 - 5.9	ng/kg	NBZ_DG-541	LL	1613B	0 - 0.5
Dioxins	1,2,3,6,7,8-HXCDF	57117-44-9	5 / 24	0.169 J Z	0.49 J Z	0.0179 - 0.0586	4.86 - 5.9	ng/kg	NBZ_DG-540	LL	1613B	0 - 0.5
Dioxins	1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	19408-74-3	11 / 24	0.14 J Z	0.878 J Z	0.0251 - 0.09	4.86 - 5.9	ng/kg	NBZ_DG-541	LL	1613B	0 - 0.5
Dioxins	1,2,3,7,8,9-HXCDF	72918-21-9	1 / 24	0.207 J Z	0.207 J Z	0.0195 - 0.0751	4.86 - 5.9	ng/kg	NBZ_DG-541	LL	1613B	0 - 0.5
Dioxins	1,2,3,7,8-Pentachlorodibenzofuran	57117-41-6	6 / 24	0.231 J Z	0.785 J Z	0.0199 - 0.0517	4.86 - 5.9	ng/kg	NBZ_DG-540	LL	1613B	0 - 0.5
Dioxins	1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	40321-76-4	5 / 24	0.0784 J Z	0.304 J Z	0.0294 - 0.0976	4.86 - 5.9	ng/kg	NBZ_DG-541	LL	1613B	0 - 0.5
Dioxins	2,3,4,6,7,8-HXCDF	60851-34-5	5 / 24	0.153 J Z	0.626 J Z	0.0176 - 0.0624	4.86 - 5.9	ng/kg	NBZ_DG-542	LL	1613B	0 - 0.5
Dioxins	2,3,4,7,8-PECDF	57117-31-4	8 / 24	0.3 J Z	0.608 J Z	0.0179 - 0.0511	4.86 - 5.9	ng/kg	NBZ_DG-505	LL	1613B	0 - 0.5
Dioxins	2,3,7,8-TCDD	1746-01-6	2 / 24	0.0807 J Z	0.0989 J Z	0.0386 - 0.0988	0.972 - 1.18	ng/kg	NBZ_DG-517	LL	1613B	0 - 0.5
Dioxins	2,3,7,8-Tetrachlorodibenzofuran	51207-31-9	14 / 24	0.0786 J Z	0.622 J Z	0.0393 - 0.0922	0.972 - 1.18	ng/kg	NBZ_DG-545	LL	1613B	0 - 0.5
Dioxins	OCDD	3268-87-9	20 / 24	6.05 J Z	468	0.0157 - 0.0691	9.72 - 11.8	ng/kg	NBZ_DG-541	LL	1613B	0 - 0.5
Dioxins	OCDF	39001-02-0	12 / 24	0.775 J Z	38.3	0.0222 - 0.079	9.72 - 11.8	ng/kg	NBZ_DG-541	LL	1613B	0 - 0.5
Herbicides	2,2-Dichlor-Propionic Acid	75-99-0	0 / 7	-	-	45 - 110	91 - 110	µg/kg	-	-	-	-
Herbicides	2,4,5-T	93-76-5	3 / 7	1.7	2.1	0.83 - 0.97	1.7 - 2	µg/kg	NBZ_DG-541	LL	8151A	0 - 0.5
Herbicides	2,4-D	94-75-7	0 / 7	-	-	12 - 14	37 - 42	µg/kg	-	-	-	-
Herbicides	2,4-DB	94-82-6	1 / 7	24 J L	24 J L	6.3 - 30	17 - 30	µg/kg	NBZ_DG-526	LL	8151A	0 - 0.5
Herbicides	Dicamba	1918-00-9	0 / 7	-	-	4.1 - 4.7	12 - 14	µg/kg	-	-	-	-
Herbicides	Dichlorprop	120-36-5	0 / 7	-	-	9.1 - 11	17 - 20	µg/kg	-	-	-	-
Herbicides	Dinitrobutyl Phenol	88-85-7	0 / 7	-	-	9.1 - 11	24 - 28	µg/kg	-	-	-	-
Herbicides	MCPA	94-74-6	0 / 7	-	-	770 - 900	2500 - 2900	µg/kg	-	-	-	-
Herbicides	MCPP	93-65-2	2 / 7	1200 J Z	1300 J Z	760 - 880	2500 - 2900	µg/kg	NBZ_DG-542	LL	8151A	0 - 0.5
Herbicides	Silvex (2,4,5-TP)	93-72-1	3 / 7	0.97 J Z	1.4 J Z	0.76 - 0.88	1.7 - 2	µg/kg	NBZ_DG-525	LL	8151A	0 - 0.5
Mercury	Mercury	7439-97-6	9 / 12	0.0109 J Z	0.182	0.0099 - 0.0105	0.0165 - 0.0176	mg/kg	NBZ_DG-545	LL	7471B	0 - 0.5
Metals	Aluminum	7429-90-5	12 / 12	8940	26000	7.06 - 7.64	39.2 - 42.4	mg/kg	NBZ_DG-517	LL	6010C	0 - 0.5
Metals	Antimony	7440-36-0	6 / 12	1.15 J Q, Z	2.22 J Q, Z	0.725 - 0.784	3.92 - 4.24	mg/kg	NBZ_DG-517	LL	6010C	0 - 0.5
Metals	Arsenic	7440-38-2	12 / 12	2.84 J Z	19.7	0.686 - 0.742	3.92 - 4.24	mg/kg	NBZ_DG-512	LL	6010C	0 - 0.5
Metals	Barium	7440-39-3	12 / 12	48	129	0.0323 - 0.035	0.98 - 1.06	mg/kg	NBZ_DG-511	LL	6010C	0 - 0.5
Metals	Beryllium	7440-41-7	12 / 12	0.359 J Z	1.18	0.0656 - 0.071	0.98 - 1.06	mg/kg	NBZ_DG-517	LL	6010C	0 - 0.5
Metals	Boron	7440-42-8	9 / 12	2 J Z	9.81 J Z	0.823 - 0.89	9.8 - 10.6	mg/kg	NBZ_DG-517	LL	6010C	0 - 0.5
Metals	Cadmium	7440-43-9	6 / 12	0.372 J Z	0.489 J Z	0.0745 - 0.0806	0.98 - 1.06	mg/kg	NBZ_DG-511	LL	6010C	0 - 0.5
Metals	Calcium	7440-70-2	12 / 12	1980	6130	3.27 - 3.54	19.6 - 21.2	mg/kg	NBZ_DG-521	LL	6010C	0 - 0.5
Metals	Chromium	7440-47-3	12 / 12	10.9	32.6	0.157 - 0.17	2.94 - 3.18	mg/kg	NBZ_DG-517	LL	6010C	0 - 0.5
Metals	Cobalt	7440-48-4	12 / 12	4.46	9.94	0.097 - 0.105	0.98 - 1.06	mg/kg	NBZ_DG-517	LL	6010C	0 - 0.5
Metals	Copper	7440-50-8	12 / 12	1.74 J Z	25.2	0.284 - 0.307	1.96 - 2.12	mg/kg	NBZ_DG-517	LL	6010C	0 - 0.5
Metals	Iron	7439-89-6	12 / 12	14800	38300	3.55 - 7.56	39.2 - 83.5	mg/kg	NBZ_DG-517	LL	6010C	0 - 0.5
Metals	Lead	7439-92-1	12 / 12	6.86	19.7	0.49 - 0.53	2.94 - 3.18	mg/kg	NBZ_DG-511	LL	6010C	0 - 0.5
Metals	Lithium	7439-93-2	12 / 12	10.5	43.2	0.33 - 0.36	3.9 - 4.2	mg/kg	NBZ_DG-511	LL	6010C	0 - 0.5
Metals	Magnesium	7439-95-4	12 / 12	3920	8270	1.64 - 1.77	9.8 - 10.6	mg/kg	NBZ_DG-517	LL	6010C	0 - 0.5
Metals	Manganese	7439-96-5	12 / 12	185	496	0.0813 - 0.088	0.98 - 1.06	mg/kg	NBZ_DG-511	LL	6010C	0 - 0.5
Metals	Molybdenum	7439-98-7	0 / 12	-	-	0.167 - 0.18	1.96 - 2.12	mg/kg	-	-	-	-
Metals	Nickel	7440-02-0	12 / 12	6.88	21.4	0.127 - 0.138	1.96 - 2.12	mg/kg	NBZ_DG-517	LL	6010C	0 - 0.5
Metals	Phosphorus	7723-14-0	12 / 12	332 J Q	595 J Q	2.83 - 3.06	9.8 - 10.6	mg/kg	NBZ_DG-517	LL	6010C	0 - 0.5
Metals	Potassium	7440-09-7	12 / 12	2750	5660	8.17 - 8.84	98 - 106	mg/kg	NBZ_DG-511	LL	6010C	0 - 0.5
Metals	Selenium	7782-49-2	11 / 12	0.104 J Z	0.427	0.098 - 0.106	0.392 - 0.424	mg/kg	NBZ_DG-505	LL	6020A	0 - 0.5
Metals	Silver	7440-22-4	10 / 12	0.0322 J Z	0.201 J Z	0.0255 - 0.0276	0.196 - 0.212	mg/kg	NBZ_DG-545	LL	6020A	0 - 0.5
Metals	Sodium	7440-23-5	12 / 12	53.9 J Z	99.6 J Z	16.4 - 17.7	98 - 106	mg/kg	NBZ_DG-511	LL	6010C	0 - 0.5
Metals	Strontium	7440-24-6	12 / 12	8.81	31 J Q	0.0671 - 0.176	0.395 - 1.04	mg/kg	NBZ_DG-511	LL	6020A	0 - 0.5
Metals	Thallium	7440-28-0	12 / 12	0.213	0.44	0.0294 - 0.0318	0.196 - 0.212	mg/kg	NBZ_DG-517	LL	6020A	0 - 0.5
Metals	Tin	7440-31-5	0 / 12	-	-	0.216 - 0.233	9.8 - 10.6	mg/kg	-	-	-	-
Metals	Titanium	7440-32-6	12 / 12	647	1340	0.167 - 0.18	0.98 - 1.06	mg/kg	NBZ_DG-511	LL	6010C	0 - 0.5
Metals	Vanadium	7440-62-2	12 / 12	27.3	64.9	0.127 - 0.138	0.98 - 1.06	mg/kg	NBZ_DG-517	LL	6010C	0 - 0.5
Metals	Zinc	7440-66-6	12 / 12	39.9	108	0.196 - 0.212	3.92 - 4.24	mg/kg	NBZ_DG-517	LL	6010C	0 - 0.5

Table 3-4
Summary of Analytical Results for Chemicals – Validated Data
Surface Soils NBZ – Phase 3

Group	Chemical	CAS No	Detection Frequency	Minimum Concentration	Maximum Concentration	Range of Method Detection Limit	Range of Method Reporting Limit	Unit	Location of Maximum Concentration	Laboratory of Maximum Concentration	Method of Maximum Concentration	Depth of Maximum Concentration
Metals	Zirconium	7440-67-7	12 / 12	0.877 J FD, Z	4.64 J Z	0.823 - 0.89	4.9 - 5.3	mg/kg	NBZ_DG-517	LL	6010C	0 - 0.5
Moisture Content	Moisture	MOIST	55 / 55	1.2	16	0.1 - 0.1	0.1 - 0.1	%	NBZ_DG-535	LL	160.3M	0 - 0.5
Nitrates	Nitrate	14797-55-8	3 / 3	0.7 J FD, Q, Z	8.6 J Q	0.42 - 0.42	0.78 - 0.78	mg/kg	NBZ_DG-523	LL	300.0	0 - 0.5
PAHs	1-Methylnaphthalene	90-12-0	11 / 28	0.72 J FD, Z	5.6	0.67 - 7.2	1.7 - 18	µg/kg	NBZ_DG-505	LL	8270D SIM	0 - 0.5
PAHs	2-Methylnaphthalene	91-57-6	15 / 28	0.85 J FD, Z	7.9	0.67 - 7.2	1.7 - 18	µg/kg	NBZ_DG-505	LL	8270D SIM	0 - 0.5
PAHs	Acenaphthene	83-32-9	0 / 28	-	-	0.67 - 7.2	1.7 - 18	µg/kg	-	-	-	-
PAHs	Acenaphthylene	208-96-8	0 / 28	-	-	0.33 - 3.6	1.7 - 18	µg/kg	-	-	-	-
PAHs	Anthracene	120-12-7	3 / 28	0.38 J Z	0.84 J Z	0.33 - 3.6	1.7 - 18	µg/kg	NBZ_DG-505	LL	8270D SIM	0 - 0.5
PAHs	Benzo(a)anthracene	56-55-3	9 / 28	0.75 J Z	1.4 J Z	0.67 - 7.2	1.7 - 18	µg/kg	NBZ_DG-505	LL	8270D SIM	0 - 0.5
PAHs	Benzo(a)pyrene	50-32-8	10 / 28	0.68 J Z	1.7 J Z	0.67 - 7.2	1.7 - 18	µg/kg	NBZ_DG-542	LL	8270D SIM	0 - 0.5
PAHs	Benzo(b)fluoranthene	205-99-2	22 / 28	0.78 J Z	15 J FD, Z	0.67 - 7.2	1.7 - 18	µg/kg	NBZ_DG-545	LL	8270D SIM	0 - 0.5
PAHs	Benzo(e)pyrene	192-97-2	0 / 28	-	-	3.3 - 36	17 - 180	µg/kg	-	-	-	-
PAHs	Benzo(g,h,i)perylene	191-24-2	8 / 28	0.85 J Z	1.3 J Z	0.67 - 7.2	1.7 - 18	µg/kg	NBZ_DG-505	LL	8270D SIM	0 - 0.5
PAHs	Benzo(k)fluoranthene	207-08-9	9 / 28	0.71 J Z	1.4 J Z	0.67 - 7.2	1.7 - 18	µg/kg	NBZ_DG-542	LL	8270D SIM	0 - 0.5
PAHs	Bis(2-ethylhexyl)phthalate	117-81-7	11 / 28	7.6 J Z	74 J Z	6 - 65	18 - 190	µg/kg	NBZ_DG-552	LL	8270D SIM	0 - 0.5
PAHs	Butylbenzylphthalate	85-68-7	4 / 28	7.6 J Z	28	6 - 65	18 - 190	µg/kg	NBZ_DG-521	LL	8270D SIM	0 - 0.5
PAHs	Chrysene	218-01-9	25 / 28	0.68 J Z	20 J FD	0.33 - 3.6	1.7 - 18	µg/kg	NBZ_DG-545	LL	8270D SIM	0 - 0.5
PAHs	Dibenzo(a,h)anthracene	53-70-3	0 / 28	-	-	0.67 - 7.2	1.7 - 18	µg/kg	-	-	-	-
PAHs	Diethylphthalate	84-66-2	0 / 28	-	-	6 - 65	18 - 190	µg/kg	-	-	-	-
PAHs	Dimethylphthalate	131-11-3	0 / 28	-	-	6 - 65	18 - 190	µg/kg	-	-	-	-
PAHs	Di-n-butylphthalate	84-74-2	0 / 28	-	-	6 - 65	18 - 190	µg/kg	-	-	-	-
PAHs	Di-n-octylphthalate	117-84-0	0 / 28	-	-	6 - 65	18 - 190	µg/kg	-	-	-	-
PAHs	Fluoranthene	206-44-0	21 / 28	0.7 J Z	6.9 J Z	0.67 - 7.2	1.7 - 18	µg/kg	NBZ_DG-527	LL	8270D SIM	0 - 0.5
PAHs	Fluorene	86-73-7	1 / 28	16	16	0.67 - 7.2	1.7 - 18	µg/kg	NBZ_DG-542	LL	8270D SIM	0 - 0.5
PAHs	Indeno(1,2,3-cd)pyrene	193-39-5	5 / 28	0.7 J Z	0.93 J Z	0.67 - 7.2	1.7 - 18	µg/kg	NBZ_DG-505	LL	8270D SIM	0 - 0.5
PAHs	Naphthalene	91-20-3	21 / 28	0.71 J Z	21	0.67 - 7.2	1.7 - 18	µg/kg	NBZ_DG-552	LL	8270D SIM	0 - 0.5
PAHs	N-Nitrosodimethylamine	62-75-9	0 / 28	-	-	0.67 - 7.2	1.7 - 18	µg/kg	-	-	-	-
PAHs	Phenanthrene	85-01-8	20 / 28	0.86 J Z	9.6	0.67 - 7.2	1.7 - 18	µg/kg	NBZ_DG-527	LL	8270D SIM	0 - 0.5
PAHs	Pyrene	129-00-0	21 / 28	0.68 J Z	6 J Z	0.67 - 7.2	1.7 - 18	µg/kg	NBZ_DG-527	LL	8270D SIM	0 - 0.5
PCB/PCTs	Aroclor 1016	12674-11-2	0 / 12	-	-	3.3 - 3.7	17 - 19	µg/kg	-	-	-	-
PCB/PCTs	Aroclor 1221	11104-28-2	0 / 12	-	-	5.2 - 5.7	17 - 19	µg/kg	-	-	-	-
PCB/PCTs	Aroclor 1232	11141-16-5	0 / 12	-	-	4.1 - 4.6	17 - 19	µg/kg	-	-	-	-
PCB/PCTs	Aroclor 1242	53469-21-9	0 / 12	-	-	4.1 - 4.6	17 - 19	µg/kg	-	-	-	-
PCB/PCTs	Aroclor 1248	12672-29-6	0 / 12	-	-	3.3 - 3.7	17 - 19	µg/kg	-	-	-	-
PCB/PCTs	Aroclor 1254	11097-69-1	0 / 12	-	-	4.5 - 4.9	17 - 19	µg/kg	-	-	-	-
PCB/PCTs	Aroclor 1260	11096-82-5	0 / 12	-	-	3.9 - 4.3	17 - 19	µg/kg	-	-	-	-
PCB/PCTs	Aroclor 1262	37324-23-5	0 / 12	-	-	3.3 - 3.7	17 - 19	µg/kg	-	-	-	-
PCB/PCTs	Aroclor 1268	11100-14-4	0 / 12	-	-	3.3 - 3.7	17 - 19	µg/kg	-	-	-	-
PCB/PCTs	Aroclor 5432	63496-31-1	0 / 12	-	-	10 - 11	33 - 37	µg/kg	-	-	-	-
PCB/PCTs	Aroclor 5442	12642-23-8	0 / 12	-	-	10 - 11	33 - 37	µg/kg	-	-	-	-
PCB/PCTs	Aroclor 5460	11126-42-4	0 / 12	-	-	10 - 11	33 - 37	µg/kg	-	-	-	-
Pesticides	4,4'-DDD	72-54-8	0 / 25	-	-	0.33 - 2	1.7 - 2	µg/kg	-	-	-	-
Pesticides	4,4'-DDE	72-55-9	12 / 25	0.63 J Z	2.7	0.33 - 1.9	1.7 - 2	µg/kg	NBZ_DG-556	LL	8081B	0 - 0.5
Pesticides	4,4'-DDT	50-29-3	15 / 25	0.37 J Z	2.6	0.35 - 0.41	1.7 - 2	µg/kg	NBZ_DG-556	LL	8081B	0 - 0.5
Pesticides	Aldrin	309-00-2	0 / 25	-	-	0.17 - 0.2	0.84 - 0.97	µg/kg	-	-	-	-
Pesticides	Alpha-Bhc	319-84-6	0 / 25	-	-	0.17 - 0.2	0.84 - 0.97	µg/kg	-	-	-	-
Pesticides	Beta-Bhc	319-85-7	0 / 25	-	-	0.97 - 1.1	1.9 - 2.2	µg/kg	-	-	-	-
Pesticides	Chlordane	57-74-9	0 / 25	-	-	4 - 4.7	17 - 20	µg/kg	-	-	-	-
Pesticides	Delta-Bhc	319-86-8	1 / 25	0.74 J Z	0.74 J Z	0.46 - 0.53	0.84 - 0.97	µg/kg	NBZ_DG-542	LL	8081B	0 - 0.5
Pesticides	Dieldrin	60-57-1	3 / 25	0.43 J Z	0.56 J FD, Z	0.33 - 1.9	1.7 - 2	µg/kg	NBZ_DG-540	LL	8081B	0 - 0.5
Pesticides	Endosulfan I	959-98-8	2 / 25	0.42 J Z	0.92 J Z	0.22 - 0.26	0.84 - 0.97	µg/kg	NBZ_DG-527	LL	8081B	0 - 0.5
Pesticides	Endosulfan II	33213-65-9	0 / 25	-	-	0.33 - 0.39	1.7 - 2	µg/kg	-	-	-	-
Pesticides	Endosulfan Sulfate	1031-07-8	0 / 25	-	-	0.33 - 0.56	1.7 - 2	µg/kg	-	-	-	-
Pesticides	Endrin	72-20-8	3 / 25	0.39 J Z	0.46 J FD, Z	0.33 - 1.1	1.7 - 2	µg/kg	NBZ_DG-540	LL	8081B	0 - 0.5
Pesticides	Endrin Aldehyde	7421-93-4	6 / 25	0.36 J Z	0.98 J Z	0.33 - 0.68	1.7 - 2	µg/kg	NBZ_DG-527	LL	8081B	0 - 0.5
Pesticides	Endrin Ketone	53494-70-5	0 / 25	-	-	0.61 - 0.7	1.8 - 2.1	µg/kg	-	-	-	-
Pesticides	Gamma-Bhc (Lindane)	58-89-9	1 / 25	0.32 J Z	0.32 J Z	0.17 - 0.46	0.84 - 0.97	µg/kg	NBZ_DG-528	LL	8081B	0 - 0.5
Pesticides	Heptachlor	76-44-8	1 / 25	0.54 J FD, Z	0.54 J FD, Z	0.17 - 0.2	0.84 - 0.97	µg/kg	NBZ_DG-540	LL	8081B	0 - 0.5
Pesticides	Heptachlor Epoxide	1024-57-3	0 / 25	-	-	0.17 - 0.93	0.84 - 0.97	µg/kg	-	-	-	-

Group	Chemical	CAS No	Detection Frequency	Minimum Concentration	Maximum Concentration	Range of Method Detection Limit	Range of Method Reporting Limit	Unit	Location of Maximum Concentration	Laboratory of Maximum Concentration	Method of Maximum Concentration	Depth of Maximum Concentration
Pesticides	Methoxychlor	72-43-5	0 / 25	-	-	1.7 - 2	6.8 - 7.8	µg/kg	-	-	-	-
Pesticides	Mirex	2385-85-5	1 / 25	0.62 J Z	0.62 J Z	0.35 - 0.41	1.7 - 2	µg/kg	NBZ_DG-541	LL	8081B	0 - 0.5
Pesticides	Technical Toxaphene	8001-35-2	0 / 25	-	-	14 - 39	33 - 39	µg/kg	-	-	-	-
pH	pH	pH	14 / 14	6.32	7.93	0.01 - 0.01	0.01 - 0.01	pH	NBZ_DG-510	LL	9045M	0 - 0.5
TPH-EFH	EFH (C12-C14)	PHCC12C14	0 / 40	-	-	2 - 11	5 - 27	mg/kg	-	-	-	-
TPH-EFH	EFH (C15-C20)	PHCC15C20	22 / 40	2.1 J Z 2.1 J Z	35	2 - 11	5 - 27	mg/kg	NBZ_DG-545	LL	8015M	0 - 0.5
TPH-EFH	EFH (C21-C30)	PHCC21C30	32 / 40	2.8 J Z	180	2 - 11	5 - 27	mg/kg	NBZ_DG-556	LL	8015M	0 - 0.5
TPH-EFH	EFH (C30-C40)	PHCC30C40	34 / 40	4.2 J Z	490	4 - 22	10 - 54	mg/kg	NBZ_DG-556	LL	8015M	0 - 0.5
TPH-EFH	EFH (C8-C11)	PHCC8C11	1 / 40	14 J Z	14 J Z	2 - 11	5 - 27	mg/kg	NBZ_DG-518	LL	8015M	0 - 0.5

Notes
LL - Eurofins Lancaster Laboratory
µg/kg- microgram per kilogram
mg/kg - milligram per kilogram
ng/kg - nanogram per kilogram
J - Result is an estimated value
% - percent
CAS = chemical abstract service
TPH = total petroleum hydrocarbon
EFH = extractable fuel hydrocarbon
EMPC = estimated maximum possible concentration
SIM = selective ion monitoring
Q - Matrix spike recoveries outside of criteria
Z - Analytes reported below the reporting limits and above the method detection limi
FD - Field duplicate relative percent difference outside of criteria
Minimum concentration values for dioxins may be EMPC values.

Group	Chemical	CAS No	Detection Frequency	Minimum Concentration	Maximum Concentration	Range of Method Detection Limit	Range of Method Reporting Limit	Unit	Location of Maximum Concentration	Laboratory of Maximum Concentration	Method of Maximum Concentration	Depth of Maximum Concentration
Dioxins	1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	35822-46-9	0 / 6	-	-	0.0178 - 0.0719	5.07 - 5.5	ng/kg	-	-	-	-
Dioxins	1,2,3,4,6,7,8-HPCDF	67562-39-4	0 / 6	-	-	0.00971 - 0.0466	5.07 - 5.5	ng/kg	-	-	-	-
Dioxins	1,2,3,4,7,8,9-HPCDF	55673-89-7	0 / 6	-	-	0.0111 - 0.0702	5.07 - 5.5	ng/kg	-	-	-	-
Dioxins	1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	39227-28-6	0 / 6	-	-	0.0207 - 0.0468	5.07 - 5.5	ng/kg	-	-	-	-
Dioxins	1,2,3,4,7,8-HXCDF	70648-26-9	0 / 6	-	-	0.0129 - 0.0383	5.07 - 5.5	ng/kg	-	-	-	-
Dioxins	1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	57653-85-7	0 / 6	-	-	0.0217 - 0.0503	5.07 - 5.5	ng/kg	-	-	-	-
Dioxins	1,2,3,6,7,8-HXCDF	57117-44-9	0 / 6	-	-	0.0128 - 0.0359	5.07 - 5.5	ng/kg	-	-	-	-
Dioxins	1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	19408-74-3	1 / 6	0.0337 J Z	0.0337 J Z	0.0199 - 0.0452	5.07 - 5.5	ng/kg	NBZ_DG-516	LL	1613B	4 - 5
Dioxins	1,2,3,7,8,9-HXCDF	72918-21-9	0 / 6	-	-	0.0126 - 0.04	5.07 - 5.5	ng/kg	-	-	-	-
Dioxins	1,2,3,7,8-Pentachlorodibenzofuran	57117-41-6	0 / 6	-	-	0.0145 - 0.0333	5.07 - 5.5	ng/kg	-	-	-	-
Dioxins	1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	40321-76-4	0 / 6	-	-	0.0257 - 0.0513	5.07 - 5.5	ng/kg	-	-	-	-
Dioxins	2,3,4,6,7,8-HXCDF	60851-34-5	0 / 6	-	-	0.0118 - 0.0342	5.07 - 5.5	ng/kg	-	-	-	-
Dioxins	2,3,4,7,8-PECDF	57117-31-4	0 / 6	-	-	0.0136 - 0.0307	5.07 - 5.5	ng/kg	-	-	-	-
Dioxins	2,3,7,8-TCDD	1746-01-6	1 / 6	0.0455 J Z	0.0455 J Z	0.0415 - 0.0819	1.01 - 1.1	ng/kg	NBZ_DG-517	LL	1613B	2 - 3
Dioxins	2,3,7,8-Tetrachlorodibenzofuran	51207-31-9	1 / 6	0.0363 J Z	0.0363 J Z	0.0289 - 0.0753	1.01 - 1.1	ng/kg	NBZ_DG-517	LL	1613B	2 - 3
Dioxins	OCDD	3268-87-9	0 / 6	-	-	0.0185 - 0.0442	10.1 - 11	ng/kg	-	-	-	-
Dioxins	OCDF	39001-02-0	0 / 6	-	-	0.0236 - 0.0749	10.1 - 11	ng/kg	-	-	-	-
Herbicides	2,2-Dichlor-Propionic Acid	75-99-0	0 / 3	-	-	45 - 200	92 - 200	µg/kg	-	-	-	-
Herbicides	2,4,5-T	93-76-5	0 / 3	-	-	0.84 - 0.84	1.7 - 1.7	µg/kg	-	-	-	-
Herbicides	2,4-D	94-75-7	0 / 3	-	-	12 - 12	37 - 37	µg/kg	-	-	-	-
Herbicides	2,4-DB	94-82-6	1 / 3	22 J L	22 J L	6.3 - 12	17 - 17	µg/kg	NBZ_DG-526	LL	8151A	2.5 - 3.5
Herbicides	Dicamba	1918-00-9	0 / 3	-	-	4.1 - 4.1	12 - 12	µg/kg	-	-	-	-
Herbicides	Dichlorprop	120-36-5	0 / 3	-	-	9.2 - 9.2	17 - 17	µg/kg	-	-	-	-
Herbicides	Dinitrobutyl Phenol	88-85-7	0 / 3	-	-	9.2 - 9.2	24 - 25	µg/kg	-	-	-	-
Herbicides	MCPA	94-74-6	0 / 3	-	-	780 - 780	2500 - 2600	µg/kg	-	-	-	-
Herbicides	MCPP	93-65-2	0 / 3	-	-	760 - 770	2500 - 2600	µg/kg	-	-	-	-
Herbicides	Silvex (2,4,5-TP)	93-72-1	0 / 3	-	-	0.76 - 0.77	1.7 - 1.7	µg/kg	-	-	-	-
Mercury	Mercury	7439-97-6	2 / 3	0.014 J Z	0.0144 J Z	0.01 - 0.0103	0.0166 - 0.0171	mg/kg	NBZ_DG-517	LL	7471B	2 - 3
Metals	Aluminum	7429-90-5	3 / 3	13400	23500	7.38 - 7.62	40.9 - 42.3	mg/kg	NBZ_DG-511	LL	6010C	2.5 - 3.5
Metals	Antimony	7440-36-0	1 / 3	2.25 J Q, Z	2.25 J Q, Z	0.757 - 0.782	4.09 - 4.23	mg/kg	NBZ_DG-517	LL	6010C	2 - 3
Metals	Arsenic	7440-38-2	3 / 3	2.81 J Z	28	0.716 - 0.74	4.09 - 4.23	mg/kg	NBZ_DG-511	LL	6010C	2.5 - 3.5
Metals	Barium	7440-39-3	3 / 3	56.3	112	0.0338 - 0.0349	1.02 - 1.06	mg/kg	NBZ_DG-517	LL	6010C	2 - 3
Metals	Beryllium	7440-41-7	3 / 3	0.577 J Z	1.18	0.0685 - 0.0708	1.02 - 1.06	mg/kg	NBZ_DG-511	LL	6010C	2.5 - 3.5
Metals	Boron	7440-42-8	2 / 3	1.24 J Z	7.71 J Z	0.859 - 0.888	10.2 - 10.6	mg/kg	NBZ_DG-517	LL	6010C	2 - 3
Metals	Cadmium	7440-43-9	2 / 3	0.303 J Z	0.354 J Z	0.0778 - 0.0803	1.02 - 1.06	mg/kg	NBZ_DG-511	LL	6010C	2.5 - 3.5
Metals	Calcium	7440-70-2	3 / 3	2200	4070	3.42 - 3.53	20.5 - 21.1	mg/kg	NBZ_DG-517	LL	6010C	2 - 3
Metals	Chromium	7440-47-3	3 / 3	13.6	30	0.164 - 0.169	3.07 - 3.17	mg/kg	NBZ_DG-517	LL	6010C	2 - 3
Metals	Cobalt	7440-48-4	3 / 3	4.53	11.3	0.101 - 0.105	1.02 - 1.06	mg/kg	NBZ_DG-517	LL	6010C	2 - 3
Metals	Copper	7440-50-8	3 / 3	1.31 J Z	24.2	0.297 - 0.306	2.05 - 2.11	mg/kg	NBZ_DG-517	LL	6010C	2 - 3
Metals	Iron	7439-89-6	3 / 3	17900	36700	3.74 - 7.65	41.3 - 84.5	mg/kg	NBZ_DG-517	LL	6010C	2 - 3
Metals	Lead	7439-92-1	3 / 3	5.65	18.1	0.512 - 0.528	3.07 - 3.17	mg/kg	NBZ_DG-517	LL	6010C	2 - 3
Metals	Lithium	7439-93-2	3 / 3	27.4	45.9	0.35 - 0.36	4.1 - 4.2	mg/kg	NBZ_DG-511	LL	6010C	2.5 - 3.5
Metals	Magnesium	7439-95-4	3 / 3	4480	7910	1.71 - 1.76	10.2 - 10.6	mg/kg	NBZ_DG-517	LL	6010C	2 - 3
Metals	Manganese	7439-96-5	3 / 3	237	372	0.0849 - 0.0877	1.02 - 1.06	mg/kg	NBZ_DG-517	LL	6010C	2 - 3
Metals	Molybdenum	7439-98-7	0 / 3	-	-	0.174 - 0.18	2.05 - 2.11	mg/kg	-	-	-	-
Metals	Nickel	7440-02-0	3 / 3	7.91	21.5	0.133 - 0.137	2.05 - 2.11	mg/kg	NBZ_DG-517	LL	6010C	2 - 3
Metals	Phosphorus	7723-14-0	3 / 3	280	500 J Q	2.96 - 3.05	10.2 - 10.6	mg/kg	NBZ_DG-517	LL	6010C	2 - 3
Metals	Potassium	7440-09-7	3 / 3	2490	4010	8.53 - 8.81	102 - 106	mg/kg	NBZ_DG-511	LL	6010C	2.5 - 3.5
Metals	Selenium	7782-49-2	2 / 3	0.305 J Z	0.402 J Z	0.102 - 0.106	0.409 - 0.423	mg/kg	NBZ_DG-511	LL	6020A	2.5 - 3.5
Metals	Silver	7440-22-4	2 / 3	0.0769 J Z	0.0914 J Z	0.0266 - 0.0275	0.205 - 0.211	mg/kg	NBZ_DG-517	LL	6020A	2 - 3
Metals	Sodium	7440-23-5	3 / 3	58.9 J Z	131	17.1 - 17.6	102 - 106	mg/kg	NBZ_DG-517	LL	6010C	2 - 3
Metals	Strontium	7440-24-6	3 / 3	10.7 J Q	23.3 J Q	0.0696 - 0.18	0.409 - 1.06	mg/kg	NBZ_DG-511	LL	6020A	2.5 - 3.5
Metals	Thallium	7440-28-0	3 / 3	0.218	0.429	0.0307 - 0.0317	0.205 - 0.211	mg/kg	NBZ_DG-517	LL	6020A	2 - 3
Metals	Tin	7440-31-5	0 / 3	-	-	0.225 - 0.232	10.2 - 10.6	mg/kg	-	-	-	-
Metals	Titanium	7440-32-6	3 / 3	994	1330	0.174 - 0.18	1.02 - 1.06	mg/kg	NBZ_DG-511	LL	6010C	2.5 - 3.5
Metals	Vanadium	7440-62-2	3 / 3	28.2	56.3	0.133 - 0.137	1.02 - 1.06	mg/kg	NBZ_DG-517	LL	6010C	2 - 3
Metals	Zinc	7440-66-6	3 / 3	44.2	103	0.205 - 0.211	4.09 - 4.23	mg/kg	NBZ_DG-517	LL	6010C	2 - 3
Metals	Zirconium	7440-67-7	3 / 3	1.34 J Z	4.14 J Z	0.859 - 0.888	5.12 - 5.28	mg/kg	NBZ_DG-517	LL	6010C	2 - 3

Table 3-5
Summary of Analytical Results for Chemicals – Validated Data
Subsurface Soils NBZ – Phase 3

Group	Chemical	CAS No	Detection Frequency	Minimum Concentration	Maximum Concentration	Range of Method Detection Limit	Range of Method Reporting Limit	Unit	Location of Maximum Concentration	Laboratory of Maximum Concentration	Method of Maximum Concentration	Depth of Maximum Concentration
Moisture Content	Moisture	MOIST	14 / 14	2	10	0.1 - 0.1	0.1 - 0.1	%	NBZ_DG-508	LL	160.3M	4 - 5
Nitrates	Nitrate	14797-55-8	1 / 1	0.61 J Q, Z	0.61 J Q, Z	0.42 - 0.42	0.79 - 0.79	mg/kg	NBZ_DG-522	LL	300.0	2.5 - 3.5
PAHs	1-Methylnaphthalene	90-12-0	0 / 8	-	-	0.68 - 0.74	1.7 - 1.9	µg/kg	-	-	-	-
PAHs	2-Methylnaphthalene	91-57-6	1 / 8	0.88 J Z	0.88 J Z	0.68 - 0.74	1.7 - 1.9	µg/kg	NBZ_DG-552	LL	8270D SIM	2 - 3
PAHs	Acenaphthene	83-32-9	0 / 8	-	-	0.68 - 0.74	1.7 - 1.9	µg/kg	-	-	-	-
PAHs	Acenaphthylene	208-96-8	0 / 8	-	-	0.34 - 0.37	1.7 - 1.9	µg/kg	-	-	-	-
PAHs	Anthracene	120-12-7	0 / 8	-	-	0.34 - 0.37	1.7 - 1.9	µg/kg	-	-	-	-
PAHs	Benzo(a)anthracene	56-55-3	1 / 8	0.76 J Z	0.76 J Z	0.68 - 0.74	1.7 - 1.9	µg/kg	NBZ_DG-552	LL	8270D SIM	2 - 3
PAHs	Benzo(a)pyrene	50-32-8	0 / 8	-	-	0.68 - 0.74	1.7 - 1.9	µg/kg	-	-	-	-
PAHs	Benzo(b)fluoranthene	205-99-2	1 / 8	0.96 J Z	0.96 J Z	0.68 - 0.74	1.7 - 1.9	µg/kg	NBZ_DG-552	LL	8270D SIM	2 - 3
PAHs	Benzo(e)pyrene	192-97-2	0 / 8	-	-	3.4 - 3.7	17 - 19	µg/kg	-	-	-	-
PAHs	Benzo(g,h,i)perylene	191-24-2	0 / 8	-	-	0.68 - 0.74	1.7 - 1.9	µg/kg	-	-	-	-
PAHs	Benzo(k)fluoranthene	207-08-9	0 / 8	-	-	0.68 - 0.74	1.7 - 1.9	µg/kg	-	-	-	-
PAHs	Bis(2-ethylhexyl)phthalate	117-81-7	1 / 8	16 J Z	16 J Z	6.1 - 6.7	18 - 20	µg/kg	NBZ_DG-552	LL	8270D SIM	2 - 3
PAHs	Butylbenzylphthalate	85-68-7	1 / 8	58	58	6.1 - 6.7	18 - 20	µg/kg	NBZ_DG-552	LL	8270D SIM	2 - 3
PAHs	Chrysene	218-01-9	3 / 8	0.44 J Z	1.3 J Z	0.34 - 0.37	1.7 - 1.9	µg/kg	NBZ_DG-552	LL	8270D SIM	2 - 3
PAHs	Dibenzo(a,h)anthracene	53-70-3	0 / 8	-	-	0.68 - 0.74	1.7 - 1.9	µg/kg	-	-	-	-
PAHs	Diethylphthalate	84-66-2	0 / 8	-	-	6.1 - 6.7	18 - 20	µg/kg	-	-	-	-
PAHs	Dimethylphthalate	131-11-3	0 / 8	-	-	6.1 - 6.7	18 - 20	µg/kg	-	-	-	-
PAHs	Di-n-butylphthalate	84-74-2	0 / 8	-	-	6.1 - 6.7	18 - 20	µg/kg	-	-	-	-
PAHs	Di-n-octylphthalate	117-84-0	0 / 8	-	-	6.1 - 6.7	18 - 20	µg/kg	-	-	-	-
PAHs	Fluoranthene	206-44-0	1 / 8	0.75 J Z	0.75 J Z	0.68 - 0.74	1.7 - 1.9	µg/kg	NBZ_DG-552	LL	8270D SIM	2 - 3
PAHs	Fluorene	86-73-7	0 / 8	-	-	0.68 - 0.74	1.7 - 1.9	µg/kg	-	-	-	-
PAHs	Indeno(1,2,3-cd)pyrene	193-39-5	0 / 8	-	-	0.68 - 0.74	1.7 - 1.9	µg/kg	-	-	-	-
PAHs	Naphthalene	91-20-3	2 / 8	1.4 J Z	2.6	0.68 - 0.74	1.7 - 1.9	µg/kg	NBZ_DG-552	LL	8270D SIM	2 - 3
PAHs	N-Nitrosodimethylamine	62-75-9	0 / 8	-	-	0.68 - 0.74	1.7 - 1.9	µg/kg	-	-	-	-
PAHs	Phenanthrene	85-01-8	1 / 8	0.75 J Z	0.75 J Z	0.68 - 0.74	1.7 - 1.9	µg/kg	NBZ_DG-552	LL	8270D SIM	2 - 3
PAHs	Pyrene	129-00-0	1 / 8	0.73 J Z	0.73 J Z	0.68 - 0.74	1.7 - 1.9	µg/kg	NBZ_DG-552	LL	8270D SIM	2 - 3
PCB/PCTs	Aroclor 1016	12674-11-2	0 / 3	-	-	3.5 - 3.7	18 - 19	µg/kg	-	-	-	-
PCB/PCTs	Aroclor 1221	11104-28-2	0 / 3	-	-	5.3 - 5.7	18 - 19	µg/kg	-	-	-	-
PCB/PCTs	Aroclor 1232	11141-16-5	0 / 3	-	-	4.3 - 4.6	18 - 19	µg/kg	-	-	-	-
PCB/PCTs	Aroclor 1242	53469-21-9	0 / 3	-	-	4.3 - 4.6	18 - 19	µg/kg	-	-	-	-
PCB/PCTs	Aroclor 1248	12672-29-6	0 / 3	-	-	3.5 - 3.7	18 - 19	µg/kg	-	-	-	-
PCB/PCTs	Aroclor 1254	11097-69-1	0 / 3	-	-	4.6 - 4.9	18 - 19	µg/kg	-	-	-	-
PCB/PCTs	Aroclor 1260	11096-82-5	0 / 3	-	-	4.1 - 4.3	18 - 19	µg/kg	-	-	-	-
PCB/PCTs	Aroclor 1262	37324-23-5	0 / 3	-	-	3.5 - 3.7	18 - 19	µg/kg	-	-	-	-
PCB/PCTs	Aroclor 1268	11100-14-4	0 / 3	-	-	3.5 - 3.7	18 - 19	µg/kg	-	-	-	-
PCB/PCTs	Aroclor 5432	63496-31-1	0 / 3	-	-	10 - 11	35 - 37	µg/kg	-	-	-	-
PCB/PCTs	Aroclor 5442	12642-23-8	0 / 3	-	-	10 - 11	35 - 37	µg/kg	-	-	-	-
PCB/PCTs	Aroclor 5460	11126-42-4	0 / 3	-	-	10 - 11	35 - 37	µg/kg	-	-	-	-
Pesticides	4,4'-DDD	72-54-8	0 / 8	-	-	0.34 - 0.36	1.7 - 1.9	µg/kg	-	-	-	-
Pesticides	4,4'-DDE	72-55-9	0 / 8	-	-	0.34 - 0.36	1.7 - 1.9	µg/kg	-	-	-	-
Pesticides	4,4'-DDT	50-29-3	0 / 8	-	-	0.36 - 0.39	1.7 - 1.9	µg/kg	-	-	-	-
Pesticides	Aldrin	309-00-2	0 / 8	-	-	0.17 - 0.19	0.85 - 0.92	µg/kg	-	-	-	-
Pesticides	Alpha-Bhc	319-84-6	0 / 8	-	-	0.17 - 0.19	0.85 - 0.92	µg/kg	-	-	-	-
Pesticides	Beta-Bhc	319-85-7	0 / 8	-	-	0.98 - 1.1	1.9 - 2.1	µg/kg	-	-	-	-
Pesticides	Chlordane	57-74-9	0 / 8	-	-	4.1 - 4.4	17 - 19	µg/kg	-	-	-	-
Pesticides	Delta-Bhc	319-86-8	0 / 8	-	-	0.46 - 0.5	0.85 - 0.92	µg/kg	-	-	-	-
Pesticides	Dieldrin	60-57-1	0 / 8	-	-	0.34 - 0.36	1.7 - 1.9	µg/kg	-	-	-	-
Pesticides	Endosulfan I	959-98-8	0 / 8	-	-	0.22 - 0.24	0.85 - 0.92	µg/kg	-	-	-	-
Pesticides	Endosulfan II	33213-65-9	0 / 8	-	-	0.34 - 0.36	1.7 - 1.9	µg/kg	-	-	-	-
Pesticides	Endosulfan Sulfate	1031-07-8	0 / 8	-	-	0.34 - 0.36	1.7 - 1.9	µg/kg	-	-	-	-
Pesticides	Endrin	72-20-8	0 / 8	-	-	0.34 - 0.36	1.7 - 1.9	µg/kg	-	-	-	-
Pesticides	Endrin Aldehyde	7421-93-4	0 / 8	-	-	0.34 - 0.36	1.7 - 1.9	µg/kg	-	-	-	-
Pesticides	Endrin Ketone	53494-70-5	0 / 8	-	-	0.61 - 0.66	1.8 - 2	µg/kg	-	-	-	-
Pesticides	Gamma-Bhc (Lindane)	58-89-9	0 / 8	-	-	0.17 - 0.19	0.85 - 0.92	µg/kg	-	-	-	-
Pesticides	Heptachlor	76-44-8	0 / 8	-	-	0.17 - 0.19	0.85 - 0.92	µg/kg	-	-	-	-
Pesticides	Heptachlor Epoxide	1024-57-3	0 / 8	-	-	0.17 - 0.19	0.85 - 0.92	µg/kg	-	-	-	-
Pesticides	Methoxychlor	72-43-5	0 / 8	-	-	1.7 - 1.9	6.8 - 7.4	µg/kg	-	-	-	-

Group	Chemical	CAS No	Detection Frequency	Minimum Concentration	Maximum Concentration	Range of Method Detection Limit	Range of Method Reporting Limit	Unit	Location of Maximum Concentration	Laboratory of Maximum Concentration	Method of Maximum Concentration	Depth of Maximum Concentration
Pesticides	Mirex	2385-85-5	0 / 8	-	-	0.36 - 0.39	1.7 - 1.9	µg/kg	-	-	-	-
Pesticides	Technical Toxaphene	8001-35-2	0 / 8	-	-	14 - 15	34 - 36	µg/kg	-	-	-	-
pH	pH	pH	6 / 6	6.72	8.04	0.01 - 0.01	0.01 - 0.01	pH	NBZ_DG-510	LL	9045M	4 - 5
TPH-EFH	EFH (C12-C14)	PHCC12C14	0 / 13	-	-	2 - 2.2	5.1 - 5.5	mg/kg	-	-	-	-
TPH-EFH	EFH (C15-C20)	PHCC15C20	1 / 13	5.2	5.2	2 - 2.2	5.1 - 5.5	mg/kg	NBZ_DG-556	LL	8015M	4 - 5
TPH-EFH	EFH (C21-C30)	PHCC21C30	6 / 13	3.2 J Z	30	2 - 2.2	5.1 - 5.5	mg/kg	NBZ_DG-556	LL	8015M	4 - 5
TPH-EFH	EFH (C30-C40)	PHCC30C40	6 / 13	8.2 J Z	74	4.1 - 4.4	10 - 11	mg/kg	NBZ_DG-556	LL	8015M	4 - 5
TPH-EFH	EFH (C8-C11)	PHCC8C11	0 / 13	-	-	2 - 2.2	5.1 - 5.5	mg/kg	-	-	-	-
TPH-GRO	Gasoline Range Organics (C5-C12)	GROC5C12	2 / 11	0.3 J Z	0.6 J Z	0.2 - 0.2	1 - 1.1	mg/kg	NBZ_DG-507	LL	8015M	3.5 - 4.5

Notes
LL - Eurofins Lancaster Laboratory
µg/kg- microgram per kilogram
mg/kg - milligram per kilogram
ng/kg - nanogram per kilogram
J - Result is an estimated value
% - percent
CAS = chemical abstract service
TPH = total petroleum hydrocarbon
GRO = gasoline range organic
EFH = extractable fuel hydrocarbon
EMPC = estimated maximum possible concentration
SIM = selective ion monitoring
Q - Matrix spike recoveries outside of criteria
L - Laboratory control sample recoveries outside of criteria
Z - Analytes reported below the reporting limits and above the method detection limi
Minimum concentration values for dioxins may be EMPC values.

Group	Chemical	CAS No	Detection Frequency	Minimum Concentration	Maximum Concentration	Range of Method Detection Limit	Range of Method Reporting Limit	Unit	Location of Maximum Concentration	Laboratory of Maximum Concentration	Method of Maximum Concentration	Depth of Maximum Concentration
Cyanide	Cyanide	57-12-5	0 / 1	-	-	0.19 - 0.19	0.52 - 0.52	mg/kg	-	-	-	-
Dioxins	1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	35822-46-9	18 / 30	0.913 J Z	58.3	0.0178 - 0.0826	4.86 - 5.9	ng/kg	NBZ_DG-541	LL	1613B	0 - 0.5
Dioxins	1,2,3,4,6,7,8-HPCDF	67562-39-4	11 / 30	0.411 J Z	14.5	0.00971 - 0.0511	4.86 - 5.9	ng/kg	NBZ_DG-541	LL	1613B	0 - 0.5
Dioxins	1,2,3,4,7,8,9-HPCDF	55673-89-7	3 / 30	0.654 J FD, Z	1.22 J Z	0.0111 - 0.0795	4.86 - 5.9	ng/kg	NBZ_DG-541	LL	1613B	0 - 0.5
Dioxins	1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	39227-28-6	5 / 30	0.133 J Z	0.404 J Z	0.0207 - 0.0895	4.86 - 5.9	ng/kg	NBZ_DG-542	LL	1613B	0 - 0.5
Dioxins	1,2,3,4,7,8-HXCDF	70648-26-9	5 / 30	0.156 J Z	0.831 J Z	0.0129 - 0.0644	4.86 - 5.9	ng/kg	NBZ_DG-509	LL	1613B	0 - 0.5
Dioxins	1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	57653-85-7	9 / 30	0.144 J Z	2.78 J Z	0.0217 - 0.0902	4.86 - 5.9	ng/kg	NBZ_DG-541	LL	1613B	0 - 0.5
Dioxins	1,2,3,6,7,8-HXCDF	57117-44-9	5 / 30	0.169 J Z	0.49 J Z	0.0128 - 0.0586	4.86 - 5.9	ng/kg	NBZ_DG-540	LL	1613B	0 - 0.5
Dioxins	1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	19408-74-3	12 / 30	0.0337 J Z	0.878 J Z	0.0199 - 0.09	4.86 - 5.9	ng/kg	NBZ_DG-541	LL	1613B	0 - 0.5
Dioxins	1,2,3,7,8,9-HXCDF	72918-21-9	1 / 30	0.207 J Z	0.207 J Z	0.0126 - 0.0751	4.86 - 5.9	ng/kg	NBZ_DG-541	LL	1613B	0 - 0.5
Dioxins	1,2,3,7,8-Pentachlorodibenzofuran	57117-41-6	6 / 30	0.231 J Z	0.785 J Z	0.0145 - 0.0517	4.86 - 5.9	ng/kg	NBZ_DG-540	LL	1613B	0 - 0.5
Dioxins	1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	40321-76-4	5 / 30	0.0784 J Z	0.304 J Z	0.0257 - 0.0976	4.86 - 5.9	ng/kg	NBZ_DG-541	LL	1613B	0 - 0.5
Dioxins	2,3,4,6,7,8-HXCDF	60851-34-5	5 / 30	0.153 J Z	0.626 J Z	0.0118 - 0.0624	4.86 - 5.9	ng/kg	NBZ_DG-542	LL	1613B	0 - 0.5
Dioxins	2,3,4,7,8-PECDF	57117-31-4	8 / 30	0.3 J Z	0.608 J Z	0.0136 - 0.0511	4.86 - 5.9	ng/kg	NBZ_DG-505	LL	1613B	0 - 0.5
Dioxins	2,3,7,8-TCDD	1746-01-6	3 / 30	0.0455 J Z	0.0989 J Z	0.0386 - 0.0988	0.972 - 1.18	ng/kg	NBZ_DG-517	LL	1613B	0 - 0.5
Dioxins	2,3,7,8-Tetrachlorodibenzofuran	51207-31-9	15 / 30	0.0363 J Z	0.622 J Z	0.0289 - 0.0922	0.972 - 1.18	ng/kg	NBZ_DG-545	LL	1613B	0 - 0.5
Dioxins	OCDD	3268-87-9	20 / 30	6.05 J Z	468	0.0157 - 0.0691	9.72 - 11.8	ng/kg	NBZ_DG-541	LL	1613B	0 - 0.5
Dioxins	OCDF	39001-02-0	12 / 30	0.775 J Z	38.3	0.0222 - 0.079	9.72 - 11.8	ng/kg	NBZ_DG-541	LL	1613B	0 - 0.5
Herbicides	2,2-Dichlor-Propionic Acid	75-99-0	0 / 10	-	-	45 - 200	91 - 200	µg/kg	-	-	-	-
Herbicides	2,4,5-T	93-76-5	3 / 10	1.7	2.1	0.83 - 0.97	1.7 - 2	µg/kg	NBZ_DG-541	LL	8151A	0 - 0.5
Herbicides	2,4-D	94-75-7	0 / 10	-	-	12 - 14	37 - 42	µg/kg	-	-	-	-
Herbicides	2,4-DB	94-82-6	2 / 10	22 J L	24 J L	6.3 - 30	17 - 30	µg/kg	NBZ_DG-526	LL	8151A	0 - 0.5
Herbicides	Dicamba	1918-00-9	0 / 10	-	-	4.1 - 4.7	12 - 14	µg/kg	-	-	-	-
Herbicides	Dichlorprop	120-36-5	0 / 10	-	-	9.1 - 11	17 - 20	µg/kg	-	-	-	-
Herbicides	Dinitrobutyl Phenol	88-85-7	0 / 10	-	-	9.1 - 11	24 - 28	µg/kg	-	-	-	-
Herbicides	MCPA	94-74-6	0 / 10	-	-	770 - 900	2500 - 2900	µg/kg	-	-	-	-
Herbicides	MCPP	93-65-2	2 / 10	1200 J Z	1300 J Z	760 - 880	2500 - 2900	µg/kg	NBZ_DG-542	LL	8151A	0 - 0.5
Herbicides	Silvex (2,4,5-TP)	93-72-1	3 / 10	0.97 J Z	1.4 J Z	0.76 - 0.88	1.7 - 2	µg/kg	NBZ_DG-525	LL	8151A	0 - 0.5
Mercury	Mercury	7439-97-6	11 / 15	0.0109 J Z	0.182	0.0099 - 0.0105	0.0165 - 0.0176	mg/kg	NBZ_DG-545	LL	7471B	0 - 0.5
Metals	Aluminum	7429-90-5	15 / 15	8940	26000	7.06 - 7.64	39.2 - 42.4	mg/kg	NBZ_DG-517	LL	6010C	0 - 0.5
Metals	Antimony	7440-36-0	7 / 15	1.15 J Q, Z	2.25 J Q, Z	0.725 - 0.784	3.92 - 4.24	mg/kg	NBZ_DG-517	LL	6010C	2 - 3
Metals	Arsenic	7440-38-2	15 / 15	2.81 J Z	28	0.686 - 0.742	3.92 - 4.24	mg/kg	NBZ_DG-511	LL	6010C	2.5 - 3.5
Metals	Barium	7440-39-3	15 / 15	48	129	0.0323 - 0.035	0.98 - 1.06	mg/kg	NBZ_DG-511	LL	6010C	0 - 0.5
Metals	Beryllium	7440-41-7	15 / 15	0.359 J Z	1.18	0.0656 - 0.071	0.98 - 1.06	mg/kg	NBZ_DG-517	LL	6010C	0 - 0.5
					1.18				NBZ_DG-511	LL	6010C	2.5 - 3.5
Metals	Boron	7440-42-8	11 / 15	1.24 J Z	9.81 J Z	0.823 - 0.89	9.8 - 10.6	mg/kg	NBZ_DG-517	LL	6010C	0 - 0.5
Metals	Cadmium	7440-43-9	8 / 15	0.303 J Z	0.489 J Z	0.0745 - 0.0806	0.98 - 1.06	mg/kg	NBZ_DG-511	LL	6010C	0 - 0.5
Metals	Calcium	7440-70-2	15 / 15	1980	6130	3.27 - 3.54	19.6 - 21.2	mg/kg	NBZ_DG-521	LL	6010C	0 - 0.5
Metals	Chromium	7440-47-3	15 / 15	10.9	32.6	0.157 - 0.17	2.94 - 3.18	mg/kg	NBZ_DG-517	LL	6010C	0 - 0.5
Metals	Cobalt	7440-48-4	15 / 15	4.46	11.3	0.097 - 0.105	0.98 - 1.06	mg/kg	NBZ_DG-517	LL	6010C	2 - 3
Metals	Copper	7440-50-8	15 / 15	1.31 J Z	25.2	0.284 - 0.307	1.96 - 2.12	mg/kg	NBZ_DG-517	LL	6010C	0 - 0.5
Metals	Iron	7439-89-6	15 / 15	14800	38300	3.55 - 7.65	39.2 - 84.5	mg/kg	NBZ_DG-517	LL	6010C	0 - 0.5
Metals	Lead	7439-92-1	15 / 15	5.65	19.7	0.49 - 0.53	2.94 - 3.18	mg/kg	NBZ_DG-511	LL	6010C	0 - 0.5
Metals	Lithium	7439-93-2	15 / 15	10.5	45.9	0.33 - 0.36	3.9 - 4.2	mg/kg	NBZ_DG-511	LL	6010C	2.5 - 3.5
Metals	Magnesium	7439-95-4	15 / 15	3920	8270	1.64 - 1.77	9.8 - 10.6	mg/kg	NBZ_DG-517	LL	6010C	0 - 0.5
Metals	Manganese	7439-96-5	15 / 15	185	496	0.0813 - 0.088	0.98 - 1.06	mg/kg	NBZ_DG-511	LL	6010C	0 - 0.5
Metals	Molybdenum	7439-98-7	0 / 15	-	-	0.167 - 0.18	1.96 - 2.12	mg/kg	-	-	-	-
Metals	Nickel	7440-02-0	15 / 15	6.88	21.5	0.127 - 0.138	1.96 - 2.12	mg/kg	NBZ_DG-517	LL	6010C	2 - 3
Metals	Phosphorus	7723-14-0	15 / 15	280	595 J Q	2.83 - 3.06	9.8 - 10.6	mg/kg	NBZ_DG-517	LL	6010C	0 - 0.5
Metals	Potassium	7440-09-7	15 / 15	2490	5660	8.17 - 8.84	98 - 106	mg/kg	NBZ_DG-511	LL	6010C	0 - 0.5
Metals	Selenium	7782-49-2	13 / 15	0.104 J Z	0.427	0.098 - 0.106	0.392 - 0.424	mg/kg	NBZ_DG-505	LL	6020A	0 - 0.5
Metals	Silver	7440-22-4	12 / 15	0.0322 J Z	0.201 J Z	0.0255 - 0.0276	0.196 - 0.212	mg/kg	NBZ_DG-545	LL	6020A	0 - 0.5
Metals	Sodium	7440-23-5	15 / 15	53.9 J Z	131	16.4 - 17.7	98 - 106	mg/kg	NBZ_DG-517	LL	6010C	2 - 3
Metals	Strontium	7440-24-6	15 / 15	8.81	31 J Q	0.0671 - 0.18	0.395 - 1.06	mg/kg	NBZ_DG-511	LL	6020A	0 - 0.5
Metals	Thallium	7440-28-0	15 / 15	0.213	0.44	0.0294 - 0.0318	0.196 - 0.212	mg/kg	NBZ_DG-517	LL	6020A	0 - 0.5
Metals	Tin	7440-31-5	0 / 15	-	-	0.216 - 0.233	9.8 - 10.6	mg/kg	-	-	-	-
Metals	Titanium	7440-32-6	15 / 15	647	1340	0.167 - 0.18	0.98 - 1.06	mg/kg	NBZ_DG-511	LL	6010C	0 - 0.5
Metals	Vanadium	7440-62-2	15 / 15	27.3	64.9	0.127 - 0.138	0.98 - 1.06	mg/kg	NBZ_DG-517	LL	6010C	0 - 0.5

Table 3-6
Summary of Analytical Results for Chemicals – Validated Data
Combined Soils NBZ – Phase 3

Group	Chemical	CAS No	Detection Frequency	Minimum Concentration	Maximum Concentration	Range of Method Detection Limit	Range of Method Reporting Limit	Unit	Location of Maximum Concentration	Laboratory of Maximum Concentration	Method of Maximum Concentration	Depth of Maximum Concentration
Metals	Zinc	7440-66-6	15 / 15	39.9	108	0.196 - 0.212	3.92 - 4.24	mg/kg	NBZ_DG-517	LL	6010C	0 - 0.5
Metals	Zirconium	7440-67-7	15 / 15	0.877 J FD, Z	4.64 J Z	0.823 - 0.89	4.9 - 5.3	mg/kg	NBZ_DG-517	LL	6010C	0 - 0.5
Moisture Content	Moisture	MOIST	69 / 69	1.2	16	0.1 - 0.1	0.1 - 0.1	%	NBZ_DG-535	LL	160.3M	0 - 0.5
Nitrates	Nitrate	14797-55-8	4 / 4	0.61 J Q, Z	8.6 J Q	0.42 - 0.42	0.78 - 0.79	mg/kg	NBZ_DG-523	LL	300.0	0 - 0.5
PAHs	1-Methylnaphthalene	90-12-0	11 / 36	0.72 J FD, Z	5.6	0.67 - 7.2	1.7 - 18	µg/kg	NBZ_DG-505	LL	8270D SIM	0 - 0.5
PAHs	2-Methylnaphthalene	91-57-6	16 / 36	0.85 J FD, Z	7.9	0.67 - 7.2	1.7 - 18	µg/kg	NBZ_DG-505	LL	8270D SIM	0 - 0.5
PAHs	Acenaphthene	83-32-9	0 / 36	-	-	0.67 - 7.2	1.7 - 18	µg/kg	-	-	-	-
PAHs	Acenaphthylene	208-96-8	0 / 36	-	-	0.33 - 3.6	1.7 - 18	µg/kg	-	-	-	-
PAHs	Anthracene	120-12-7	3 / 36	0.38 J Z	0.84 J Z	0.33 - 3.6	1.7 - 18	µg/kg	NBZ_DG-505	LL	8270D SIM	0 - 0.5
PAHs	Benzo(a)anthracene	56-55-3	10 / 36	0.75 J Z	1.4 J Z	0.67 - 7.2	1.7 - 18	µg/kg	NBZ_DG-505	LL	8270D SIM	0 - 0.5
PAHs	Benzo(a)pyrene	50-32-8	10 / 36	0.68 J Z	1.7 J Z	0.67 - 7.2	1.7 - 18	µg/kg	NBZ_DG-542	LL	8270D SIM	0 - 0.5
PAHs	Benzo(b)fluoranthene	205-99-2	23 / 36	0.78 J Z	15 J FD, Z	0.67 - 7.2	1.7 - 18	µg/kg	NBZ_DG-545	LL	8270D SIM	0 - 0.5
PAHs	Benzo(e)pyrene	192-97-2	0 / 36	-	-	3.3 - 36	17 - 180	µg/kg	-	-	-	-
PAHs	Benzo(g,h,i)perylene	191-24-2	8 / 36	0.85 J Z	1.3 J Z	0.67 - 7.2	1.7 - 18	µg/kg	NBZ_DG-505	LL	8270D SIM	0 - 0.5
PAHs	Benzo(k)fluoranthene	207-08-9	9 / 36	0.71 J Z	1.4 J Z	0.67 - 7.2	1.7 - 18	µg/kg	NBZ_DG-542	LL	8270D SIM	0 - 0.5
PAHs	Bis(2-ethylhexyl)phthalate	117-81-7	12 / 36	7.6 J Z	74 J Z	6 - 65	18 - 190	µg/kg	NBZ_DG-552	LL	8270D SIM	0 - 0.5
PAHs	Butylbenzylphthalate	85-68-7	5 / 36	7.6 J Z	58	6 - 65	18 - 190	µg/kg	NBZ_DG-552	LL	8270D SIM	2 - 3
PAHs	Chrysene	218-01-9	28 / 36	0.44 J Z	20 J FD	0.33 - 3.6	1.7 - 18	µg/kg	NBZ_DG-545	LL	8270D SIM	0 - 0.5
PAHs	Dibenzo(a,h)anthracene	53-70-3	0 / 36	-	-	0.67 - 7.2	1.7 - 18	µg/kg	-	-	-	-
PAHs	Diethylphthalate	84-66-2	0 / 36	-	-	6 - 65	18 - 190	µg/kg	-	-	-	-
PAHs	Dimethylphthalate	131-11-3	0 / 36	-	-	6 - 65	18 - 190	µg/kg	-	-	-	-
PAHs	Di-n-butylphthalate	84-74-2	0 / 36	-	-	6 - 65	18 - 190	µg/kg	-	-	-	-
PAHs	Di-n-octylphthalate	117-84-0	0 / 36	-	-	6 - 65	18 - 190	µg/kg	-	-	-	-
PAHs	Fluoranthene	206-44-0	22 / 36	0.7 J Z	6.9 J Z	0.67 - 7.2	1.7 - 18	µg/kg	NBZ_DG-527	LL	8270D SIM	0 - 0.5
PAHs	Fluorene	86-73-7	1 / 36	16	16	0.67 - 7.2	1.7 - 18	µg/kg	NBZ_DG-542	LL	8270D SIM	0 - 0.5
PAHs	Indeno(1,2,3-cd)pyrene	193-39-5	5 / 36	0.7 J Z	0.93 J Z	0.67 - 7.2	1.7 - 18	µg/kg	NBZ_DG-505	LL	8270D SIM	0 - 0.5
PAHs	Naphthalene	91-20-3	23 / 36	0.71 J Z	21	0.67 - 7.2	1.7 - 18	µg/kg	NBZ_DG-552	LL	8270D SIM	0 - 0.5
PAHs	N-Nitrosodimethylamine	62-75-9	0 / 36	-	-	0.67 - 7.2	1.7 - 18	µg/kg	-	-	-	-
PAHs	Phenanthrene	85-01-8	21 / 36	0.75 J Z	9.6	0.67 - 7.2	1.7 - 18	µg/kg	NBZ_DG-527	LL	8270D SIM	0 - 0.5
PAHs	Pyrene	129-00-0	22 / 36	0.68 J Z	6 J Z	0.67 - 7.2	1.7 - 18	µg/kg	NBZ_DG-527	LL	8270D SIM	0 - 0.5
PCB/PCTs	Aroclor 1016	12674-11-2	0 / 15	-	-	3.3 - 3.7	17 - 19	µg/kg	-	-	-	-
PCB/PCTs	Aroclor 1221	11104-28-2	0 / 15	-	-	5.2 - 5.7	17 - 19	µg/kg	-	-	-	-
PCB/PCTs	Aroclor 1232	11141-16-5	0 / 15	-	-	4.1 - 4.6	17 - 19	µg/kg	-	-	-	-
PCB/PCTs	Aroclor 1242	53469-21-9	0 / 15	-	-	4.1 - 4.6	17 - 19	µg/kg	-	-	-	-
PCB/PCTs	Aroclor 1248	12672-29-6	0 / 15	-	-	3.3 - 3.7	17 - 19	µg/kg	-	-	-	-
PCB/PCTs	Aroclor 1254	11097-69-1	0 / 15	-	-	4.5 - 4.9	17 - 19	µg/kg	-	-	-	-
PCB/PCTs	Aroclor 1260	11096-82-5	0 / 15	-	-	3.9 - 4.3	17 - 19	µg/kg	-	-	-	-
PCB/PCTs	Aroclor 1262	37324-23-5	0 / 15	-	-	3.3 - 3.7	17 - 19	µg/kg	-	-	-	-
PCB/PCTs	Aroclor 1268	11100-14-4	0 / 15	-	-	3.3 - 3.7	17 - 19	µg/kg	-	-	-	-
PCB/PCTs	Aroclor 5432	63496-31-1	0 / 15	-	-	10 - 11	33 - 37	µg/kg	-	-	-	-
PCB/PCTs	Aroclor 5442	12642-23-8	0 / 15	-	-	10 - 11	33 - 37	µg/kg	-	-	-	-
PCB/PCTs	Aroclor 5460	11126-42-4	0 / 15	-	-	10 - 11	33 - 37	µg/kg	-	-	-	-
Pesticides	4,4'-DDD	72-54-8	0 / 33	-	-	0.33 - 2	1.7 - 2	µg/kg	-	-	-	-
Pesticides	4,4'-DDE	72-55-9	12 / 33	0.63 J Z	2.7	0.33 - 1.9	1.7 - 2	µg/kg	NBZ_DG-556	LL	8081B	0 - 0.5
Pesticides	4,4'-DDT	50-29-3	15 / 33	0.37 J Z	2.6	0.35 - 0.41	1.7 - 2	µg/kg	NBZ_DG-556	LL	8081B	0 - 0.5
Pesticides	Aldrin	309-00-2	0 / 33	-	-	0.17 - 0.2	0.84 - 0.97	µg/kg	-	-	-	-
Pesticides	Alpha-Bhc	319-84-6	0 / 33	-	-	0.17 - 0.2	0.84 - 0.97	µg/kg	-	-	-	-
Pesticides	Beta-Bhc	319-85-7	0 / 33	-	-	0.97 - 1.1	1.9 - 2.2	µg/kg	-	-	-	-
Pesticides	Chlordane	57-74-9	0 / 33	-	-	4 - 4.7	17 - 20	µg/kg	-	-	-	-
Pesticides	Delta-Bhc	319-86-8	1 / 33	0.74 J Z	0.74 J Z	0.46 - 0.53	0.84 - 0.97	µg/kg	NBZ_DG-542	LL	8081B	0 - 0.5
Pesticides	Dieldrin	60-57-1	3 / 33	0.43 J Z	0.56 J FD, Z	0.33 - 1.9	1.7 - 2	µg/kg	NBZ_DG-540	LL	8081B	0 - 0.5
Pesticides	Endosulfan I	959-98-8	2 / 33	0.42 J Z	0.92 J Z	0.22 - 0.26	0.84 - 0.97	µg/kg	NBZ_DG-527	LL	8081B	0 - 0.5
Pesticides	Endosulfan II	33213-65-9	0 / 33	-	-	0.33 - 0.39	1.7 - 2	µg/kg	-	-	-	-
Pesticides	Endosulfan Sulfate	1031-07-8	0 / 33	-	-	0.33 - 0.56	1.7 - 2	µg/kg	-	-	-	-
Pesticides	Endrin	72-20-8	3 / 33	0.39 J Z	0.46 J FD, Z	0.33 - 1.1	1.7 - 2	µg/kg	NBZ_DG-540	LL	8081B	0 - 0.5
Pesticides	Endrin Aldehyde	7421-93-4	6 / 33	0.36 J Z	0.98 J Z	0.33 - 0.68	1.7 - 2	µg/kg	NBZ_DG-527	LL	8081B	0 - 0.5
Pesticides	Endrin Ketone	53494-70-5	0 / 33	-	-	0.61 - 0.7	1.8 - 2.1	µg/kg	-	-	-	-
Pesticides	Gamma-Bhc (Lindane)	58-89-9	1 / 33	0.32 J Z	0.32 J Z	0.17 - 0.46	0.84 - 0.97	µg/kg	NBZ_DG-528	LL	8081B	0 - 0.5
Pesticides	Heptachlor	76-44-8	1 / 33	0.54 J FD, Z	0.54 J FD, Z	0.17 - 0.2	0.84 - 0.97	µg/kg	NBZ_DG-540	LL	8081B	0 - 0.5

Group	Chemical	CAS No	Detection Frequency	Minimum Concentration	Maximum Concentration	Range of Method Detection Limit	Range of Method Reporting Limit	Unit	Location of Maximum Concentration	Laboratory of Maximum Concentration	Method of Maximum Concentration	Depth of Maximum Concentration
Pesticides	Heptachlor Epoxide	1024-57-3	0 / 33	-	-	0.17 - 0.93	0.84 - 0.97	µg/kg	-	-	-	-
Pesticides	Methoxychlor	72-43-5	0 / 33	-	-	1.7 - 2	6.8 - 7.8	µg/kg	-	-	-	-
Pesticides	Mirex	2385-85-5	1 / 33	0.62 J Z	0.62 J Z	0.35 - 0.41	1.7 - 2	µg/kg	NBZ_DG-541	LL	8081B	0 - 0.5
Pesticides	Technical Toxaphene	8001-35-2	0 / 33	-	-	14 - 39	33 - 39	µg/kg	-	-	-	-
pH	pH	pH	20 / 20	6.32	8.04	0.01 - 0.01	0.01 - 0.01	pH	NBZ_DG-510	LL	9045M	4 - 5
TPH-EFH	EFH (C12-C14)	PHCC12C14	0 / 53	-	-	2 - 11	5 - 27	mg/kg	-	-	-	-
TPH-EFH	EFH (C15-C20)	PHCC15C20	23 / 53	2.1 J Z 2.1 J Z	35	2 - 11	5 - 27	mg/kg	NBZ_DG-545	LL	8015M	0 - 0.5
TPH-EFH	EFH (C21-C30)	PHCC21C30	38 / 53	2.8 J Z	180	2 - 11	5 - 27	mg/kg	NBZ_DG-556	LL	8015M	0 - 0.5
TPH-EFH	EFH (C30-C40)	PHCC30C40	40 / 53	4.2 J Z	490	4 - 22	10 - 54	mg/kg	NBZ_DG-556	LL	8015M	0 - 0.5
TPH-EFH	EFH (C8-C11)	PHCC8C11	1 / 53	14 J Z	14 J Z	2 - 11	5 - 27	mg/kg	NBZ_DG-518	LL	8015M	0 - 0.5
TPH-GRO	Gasoline Range Organics (C5-C12)	GROC5C12	2 / 11	0.3 J Z	0.6 J Z	0.2 - 0.2	1 - 1.1	mg/kg	NBZ_DG-507	LL	8015M	3.5 - 4.5

Notes
LL - Eurofins Lancaster Laboratory
µg/kg- microgram per kilogram
mg/kg - milligram per kilogram
ng/kg - nanogram per kilogram
J - Result is an estimated value
% - percent
CAS = chemical abstract service
TPH = total petroleum hydrocarbon
GRO = gasoline range organic
EFH = extractable fuel hydrocarbon
EMPC = estimated maximum possible concentration
SIM = selective ion monitoring
Q - Matrix spike recoveries outside of criteria
L - Laboratory control sample recoveries outside of criteria
Z - Analytes reported below the reporting limits and above the method detection limit
FD - Field duplicate relative percent difference outside of criteria
Minimum concentration values for dioxins may be EMPC values.

Section 4

Data Usability Assessment

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

4.1 Usability Summary

For the Subarea 7 data usability assessment, 18 data sets, or SDGs were reviewed and 11 SDGs were reviewed for NBZ. An SDG consists of 20 or fewer samples grouped together by analytical method for analyses depending on the time and date the samples were received by the laboratory. The analyses performed are discussed in Section 2.5.1.

Samples were collected and analyzed in accordance with the Master FSP (CDM Smith 2012a), and Addendum to the Master FSP for Subarea 7 and NBZ with the exception of the field investigation deviations as stated in Section 2.7.

The validated data for Subarea 7 samples are usable as reported with the exception of one pesticide rejected result (Endosulfan I): this rejection equates to 0.013 percent of the results. For NBZ no data were rejected.

The validated data for Phase 3 Subarea 7 and NBZ samples are usable as reported with the exception of the rejected data. This rejected result does not impact project objectives and goals. Specific details are provided in the validation reports in Appendix C and Section 4.7 of this report.

4.2 Data Validation Procedures

Data were validated by the independent data validation firm Laboratory Data Consultants, Inc. All data validation was conducted in accordance with *EPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review* (EPA 2004), *EPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review* (EPA 2008), and *EPA Contract Laboratory Program National Functional Guidelines for Chlorinated Dioxin/Furan Data Review* (EPA 2005).

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

Table 4-1 presents all SDGs that include Subarea 7 and NBZ soil samples and those SDGs that were validated as Level III or Level IV. Some SDGs may contain samples from other subareas, but all samples in an SDG were validated together. An index of samples associated with each SDG is presented at the beginning of Appendix C.

Table 4-1 Sample Delivery Groups and Validation Levels for Subarea 7 and NBZ

Subarea 7 SDGs		
Sample Delivery Group	Level of Validation Performed	CDM Smith Review
PH027	Level IV	
PH028	Level II	
PH029	Level III	
PH030	Level III	
PH031	Level IV	Yes
PH032	Level III	
PH033	Level III	
PH034	Level III	
PH035	Level III	
PH036	Level III	
PH037	Level III	
PH038	Level III	
PH039	Level IV	
PH040	Level III	Yes
PH045	Level III	
PH046	Level IV	
PH049	Level IV	
PH121	Level III	
NBZ SDGs		
Sample Delivery Group	Level of Validation Performed	CDM Smith Review
PH138	Level III	
PH139	Level IV	
PH140	Level III	
PH141	Level III	
PH142	Level IV	Yes
PH143	Level III	
PH146	Level III	
PH148	Level III	
PH151	Level III	
PH155	Level III	Yes
PH157	Level III	

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

To evaluate the quality of the laboratory data and the validation process, CDM Smith's chemists reviewed over 10 percent of the Subarea 7 and NBZ soil sample SDGs. The SDGs reviewed are chosen based on methods and level of validation performed by the validation firm. The purpose of the review was to identify any laboratory QC issues not identified by the validation firm or any discrepancies in validation procedures by the validation firm. No additional qualifiers were applied to the data based on CDM Smith's review. The results of this review are provided in Section 4.8.

4.3 Quality Assurance Objectives

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

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

- Specification and adherence to analytical method and reporting limit requirements
- Identification of the appropriate laboratory analytical QC requirements and verification that QC requirements were met
- Verification that measurement performance criteria (representativeness and completeness) for the data were met
- Verification that field procedures were followed, deviations were documented, and a determination of impact on data quality as a result of these deviations

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

4.4 Summary of Field and Laboratory QA Activities

CDM Smith completed sampling activities in Subarea 7 and NBZ in accordance with the approved Master FSP (CDM Smith 2012a) and Addendum to the Master FSP (CDM Smith 2012b) except for the surface samples that were collected using the subsurface procedure as discussed in Section 2.2. A total of 92 soil samples were collected in Subarea 7 and analyzed from the locations described in Table 2-1 and a total of 76 samples were collected in NBZ and analyzed as described in Table 2-2. Tables 2-1 and 2-2 also provide a summary of the samples collected and the laboratory analyses requested. Associated QA activities are described below.

4.5 Field Quality QA/QC

The MS/MSDs and field duplicates field QC samples were collected at a frequency of approximately 1 per 20 samples (five percent). During sampling in Subarea 7, a total of six field duplicate/MS/MSD samples were collected equating to approximately 15 percent.

In NBZ, a total of seven duplicate/MS/MSD samples were collected equating to approximately ten percent. On an individual method basis, the five percent goal was approximately met or exceeded for all analyses. Field duplicate and MS/MSD samples met the frequency requirements detailed in the Master FSP (CDM Smith 2012a).

Sections 2.4.2 through 2.4.4 discuss the equipment blanks, field blanks and performance evaluation samples collected in association with the Phase 3 Subarea 7 and NBZ soil samples.

Equipment Rinsate and Field Blanks

The 14 equipment rinsate blank results collected are presented in Appendix C and a summary of the detected results is presented in Table 4-2 for Subarea 7 and Table 4-3 for NBZ. Equipment blanks were collected in conjunction with samples sent to different laboratories. Hence, two equipment blanks could have the same name but are actually two different samples as one was sent to each laboratory analyzing the associated samples. Field blank samples were collected from each lot number of ASTM International Type II water used for decontamination. Two field blanks were collected during sampling in Subarea 7 and NBZ. Some of the equipment blanks and field blanks applied to samples in both Subarea 7 and NBZ. Some of the field blanks were also collected during prior sampling events but are associated with samples collected in Subarea 7 and NBZ. They are listed in each Subarea specific table below for clarification (listed in both tables if applicable). The detected results are presented below in Table 4-4 (Subarea 7) and Table 4-5 (NBZ) and all results are reported in Appendix C.

Table 4-2 Equipment Blank Results for Subarea 7 Soil Samples – Detected Results Only

EB-041113 7_DG_EB 04/11/2013			
Analyte	**Units**	**Concentration/RL**	**Final Qualifier**
1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	pg/L	0.322/9.74	J
1-Methylnaphthalene	µg/L	0.02/0.055	J
2-Methylnaphthalene	µg/L	0.027/0.055	J
Calcium	mg/L	0.131/0.4	J
Diethylphthalate	µg/L	0.24/1.1	J
Di-n-butylphthalate	µg/L	0.16/1.1	J
Manganese	mg/L	0.0012/0.01	J
Naphthalene	µg/L	0.13/0.055	
Tin	mg/L	0.0024/0.04	J
Zinc	mg/L	0.0041/0.04	J
EB-041813 7_DG_EB 04/18/2013			
Analyte	**Units**	**Concentration/RL**	**Final Qualifier**
1,2,3,4,7,8-HxCDF	pg/L	0.235/9.71	J
1-Methylnaphthalene	µg/L	0.014/0.051	J
2-Methylnapthalene	µg/L	0.018/0.051	J
Diethylphthalate	µg/L	0.071/1	J
Di-n-butylphthalate	µg/L	0.11/1	J
Naphthalene	µg/L	0.086/0.051	
Strontium	mg/L	0.00028/0.002	J
EB-042413 7_DG_EB 4/24/2013			
Analyte	**Units**	**Concentration/RL**	**Final Qualifier**
2-Methylnaphthalene	µg/L	0.011/0.054	J
Boron	mg/L	0.0319/0.1	J
Diethylphthalate	µg/L	0.089/1.1	J
Di-n-butylphthalate	µg/L	0.15/1.1	J
Naphthalene	µg/L	0.053/0.054	J
Sodium	mg/L	0.228/2	J
Tin	mg/L	0.0035/0.04	J

Table 4-2 Equipment Blank Results for Subarea 7 Soil Samples – Detected Results Only

EB1-060313 7_DG_EB 6/03/2013			
Analyte	**Units**	**Concentration/RL**	**Final Qualifier**
2,3,7,8-Tetrachlorodibenzofuran	pg/L	0.112/2.04	J
EB2-100213 7_DG_EB 10/02/2013			
Analyte	**Units**	**Concentration/RL**	**Final Qualifier**
Bis(2-ethylhexyl)phthalate	µg/L	0.41/1.1	J
Diethylphthalate	µg/L	0.29/1.1	J
Di-n-butylphthalate	µg/L	0.25/1.1	J

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

Table 4-3 Equipment Blank Results for NBZ Soil Samples – Detected Results Only

EB1-120513 NBZ_DG_EB 12/05/2013			
Analyte	**Units**	**Concentration/RL**	**Final Qualifier**
1,2,3,7,8-Pentachlorodibenzofuran	pg/L	0.646/9.9	J
Diethylphthalate	µg/L	0.5/1.1	J
EB1-121113 NBZ_DG_EB 12/11/2013			
Analyte	**Units**	**Concentration/RL**	**Final Qualifier**
1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	pg/L	0.289/9.65	J
1,2,3,7,8,9-HxCDF	pg/L	0.258/9.65	J
1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	pg/L	0.46/9.65	J
2,3,4,7,8-PeCDF	pg/L	0.658/9.65	J
2,3,7,8-Tetrachlorodibenzofuran	pg/L	0.622/1.93	J
Bis(2-ethylhexyl)phthalate	µg/L	2.2/1	
Diethylphthalate	µg/L	0.15/1	J
Di-n-butylphthalate	µg/L	0.13/1	
EB-120513 NBZ_DG_EB 12/05/2013			
Analyte	**Units**	**Concentration/RL**	**Final Qualifier**
Diethylphthalate	µg/L	0.5/1	J
EB2-121113 NBZ_DG_EB 12/11/2013			
Analyte	**Units**	**Concentration/RL**	**Final Qualifier**
1,2,3,6,7,8-Hexachlorodibenzo-Dioxin	pg/L	0.285/9.54	J
2,3,4,7,8-PeCDF	pg/L	0.258/9.54	J
Diethylphthalate	µg/L	0.16/1	J
Di-n-butylphthalate	µg/L	0.13/1	J
Fluoranthene	µg/L	0.012/0.051	J
Pyrene	µg/L	0.049/0.051	J
Zinc	mg/L	0.003/0.04	J

Table 4-3 Equipment Blank Results for NBZ Soil Samples – Detected Results Only

EB2-121613 NBZ_DG_EB 12/16/2013			
Analyte	**Units**	**Concentration/RL**	**Final Qualifier**
Di-n-octylphthalate	µg/L	0.06/1.1	J
EB3-120513 NBZ_DG_EB 12/06/2012			
Analyte	**Units**	**Concentration/RL**	**Final Qualifier**
1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	pg/L	0.436/9.8	J
1,2,3,4,7,8-HxCDF	pg/L	0.225/9.8	J
1,2,3,7,8,9-HxCDF	pg/L	0.39/9.8	J
1,2,3,7,8-Pentachloridibenzofuran	pg/L	0.499/9.8	J
1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	pg/L	0.635/9.8	J
Diethylphthalate	µg/L	0.51/1	J

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

Table 4-4 Field Blank Results for Subarea 7 Soil Samples – Detected Results Only

FB-041113 Field Blank 04/11/2013			
Analyte	**Units**	**Concentration/RL**	**Final Qualifier**
1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	pg/L	0.125/9.76	J
1-Methylnaphthalene	µg/L	0.019/0.051	J
2-Methylnapthalene	µg/L	0.024/0.051	J
Diethylphthalate	µg/L	0.18/1	J
Di-n-butylphthalate	µg/L	0.17/1	J
Methylene Chloride	µg/L	2/5	J
Naphthalene	µg/L	0.17/0.051	
FB-041613 Field Blank 04/16/2013			
Analyte	**Units**	**Concentration/RL**	**Final Qualifier**
1,2,3,7,8-HxCDF	pg/L	0.257/9.71	J
2-Methylnaphthalene	µg/L	0.012/0.052	J
Chloroform	µg/L	3/5	J
Di-n-butylphthalate	µg/L	0.11/1	J
Methylene Chloride	µg/L	18/5	
Tin	mg/L	0.0029/0.04	J

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

Table 4-5 Field Blank Results for NBZ Soil Samples – Detected Results Only

FB-041613 Field Blank 04/16/2013			
Analyte	**Units**	**Concentration/RL**	**Final Qualifier**
1,2,3,7,8-HxCDF	pg/L	0.257/9.71	J
2-Methylnaphthalene	µg/L	0.012/0.052	J
Chloroform	µg/L	3/5	J
Di-n-butylphthalate	µg/L	0.11/1	J
Methylene Chloride	µg/L	18/5	
Tin	mg/L	0.0029/0.04	J

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

Trip Blanks

Twelve trip blank samples were shipped with the Subarea 7 samples and five trip blanks were shipped with the NBZ soil samples. The analytical results for the trip blanks collected in association with Subarea 7 and NBZ soil samples are presented in Appendix C. All trip blank results were nondetect.

Temperature Blanks

Temperature blanks were included with each shipment of samples. Based on validation results all temperature blanks submitted with the Subarea 7 and NBZ samples met criteria.

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

Field QC Summary

As stated previously, on an individual method basis, the five percent goal was approximately met or exceeded for all analyses. Field duplicate and MS/MSD samples met the frequency requirements detailed in the Master FSP (CDM Smith 2012a) for the Phase 3 Subarea 7 and NBZ sampling program. Further, field QA/QC objectives were attained through the use of appropriate sampling techniques and collection of the required number and frequency of QC samples.

4.6 Laboratory Quality QA/QC

Analytical QA/QC was assessed by laboratory QC checks, method blanks, sample custody tracking, sample preservation, adherence to holding times, laboratory control samples (LCSs), MSs, calibration recoveries, surrogates, tuning criteria, second column confirmations, internal standards, serial dilutions, laboratory duplicates, and interference check standards. The majority of the laboratory QC sample criteria met project requirements as indicated in the data validation reports in Appendix C with the appropriate qualifiers applied. For Subarea 7 one Endosulfan I result was rejected. No data was rejected for NBZ. Specific details are provided in the validation reports in Appendix C and Section 4.7.

4.7 Data Quality Indicators

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

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

4.7.1 Precision

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

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

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

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

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

For the Phase 3 Subarea 7 and NBZ data sets, precision was evaluated by reviewing RPD results for MS/MSDs, LCS/LCSDs, laboratory duplicates, and field duplicates.

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

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

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

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

No sample results for Subarea 7 and NBZ required qualification based on precision criteria.

Field duplicate precision criteria for Phase 3 Subarea 7 samples required the qualification of some analytes for dioxins, metals, mercury, TPH EFH, TPH GRO, pesticides, PCB/PCTs and SVOC SIM. For Phase 3 NBZ samples, dioxins, nitrate, metals, TPH EFH, TPH GRO, pesticides, herbicides, and SVOC SIM results were also qualified due to field duplicate precision criteria. No results were rejected based on field duplicate precision criteria. All field duplicate RPD results are presented in Appendix C. In summary, sample results that have been qualified as estimated "J/UJ" due to precision criteria are usable for project decisions with a degree of caution.

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

4.7.2 Accuracy

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

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

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

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

- Sampling procedure
- Field contamination
- Sample preservation and handling
- Sample matrix

- Sample preparation
- Analytical techniques

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

The following QC samples are used to assess laboratory accuracy:

Matrix Spikes: MSs are samples with a known amount of a target analyte added to them. Analysis of the sample that has been spiked and comparison with the results from the unspiked sample (background) gives information about the ability of the test procedure to generate a correct result from the sample.

Post Digestion Spikes: Post digestion spikes are performed after the sample has been prepared and is ready for analysis. These are also termed "analytical spikes." The technique is used in conjunction with a MS to provide data that can separate interferences produced as part of the sample preparation from interferences that are innate qualities of the sample.

Laboratory Control Samples: LCSs consist of a portion of analyte-free water or solid phase sample that is spiked with target analytes at a known concentration.

Surrogates: Surrogate recovery is a QC measure limited to use in organics analysis. Surrogates are compounds added to every sample at the beginning of the sample preparation to monitor the success of the sample preparation and analytical procedures on an individual sample basis. Individual compounds used as surrogates are selected based on their ability to mimic the behavior of specific target analytes held to be particularly sensitive to the sample preparation manipulations.

Interference Check Samples: Interference check sample analysis is a QC measure unique to metals analysis using inductively coupled plasma atomic emission spectrometry. This QC sample verifies the analytical instrument's ability to overcome interferences typical of those found in samples.

Calibrations: Method requirements for satisfactory instrument calibration are established to ensure that the instrument is capable of producing acceptable quantitative data for metals. Initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of the analytical run. Continuing calibrations demonstrate that the initial calibration is still valid by checking the performance of the instrument on a continuing basis.

Internal Standards: Internal standards measure the gas chromatograph/ mass spectrometer sensitivity and response stability during each analysis.

Serial Dilution: Serial dilutions are performed on at least one sample from every batch of analyses for metals to determine if physical or chemical interferences exist in the analyte determinations.

For the Phase 3 Subarea 7 and NBZ soil data sets, accuracy was evaluated by reviewing the %R values and relative response factors of initial and continuing calibration (percent difference or percent drift [%D] for organic analyses), internal standards, surrogate spikes (organic analyses only), MS/MSD, LCS/LCSD, inductively coupled plasma (ICP) interferences, and by performing serial dilution checks

during metals analyses, in conjunction with method blank, calibration blank, equipment rinsate blank, and trip blank results. These QC results assist in identifying the type and magnitude of effects that may have contributed to system error introduced from field and/or laboratory procedures.

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

The following Subarea 7 individual analyte results were qualified as estimated "J/UJ" based on accuracy criteria:

- Some of the dioxins due to exceeded calibration range
- One pesticide result due to confirmation column results
- Some of the metal analyte results due to serial dilutions
- Some of the TPH EFH, TPH GRO and pesticide results due to LCSs
- Some of the dioxins, metals, TPH EFH, TPH GRO, pesticides and SVOC SIM results due to MSs
- Some of the PCB/PCTs due to surrogates

The following NBZ individual analyte results were qualified as estimated "J/UJ" based on accuracy criteria:

- Some of the nitrates, metals, TPH EFH and TPH GRO results due to MSs
- Some of the herbicide and SVOC SIM results due to LCSs
- Some of the dioxins and pesticide results due to confirmation column results
- Some of the pesticide results based on calibration criteria

The following individual Subarea 7 analyte result was rejected "R" based on accuracy criteria:

- One pesticide result (Endosulfan I) based on MSs

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

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

4.7.3 Blank Contamination

Blanks are used to determine the level of laboratory and field contamination introduced into the samples, independent of the level of target analytes found in the sample source. Sources of sample contamination can include the containers and equipment used to collect the sample, preservatives

added to the sample, other samples in transport coolers and laboratory sample storage refrigerators, standards and solutions used to calibrate instruments, glassware and reagents used to process samples, airborne contamination in the laboratory preparation area and the analytical instrument sample introduction equipment. Each analyte group has its own particular suite of common laboratory contaminants. Active measures must be performed to continually measure the ambient contamination level and steps taken to discover the source of the contamination to eliminate or minimize the levels. Random spot contamination can also occur from analytes that are not common laboratory problems but that can arise as a problem for a specific project or over a short period of time. Sample equipment decontamination practices are discussed in Section 2.4.5. Field blanks, equipment blanks, trip blanks and laboratory method blanks are analyzed to identify possible sources of contamination. The DUAR and laboratory validation reports in Appendix C discuss the results that were qualified based on field and laboratory blank contamination.

In summary, for Phase 3 Subarea 7 samples, some dioxins and metals were qualified as non-detect due to laboratory blank contamination criteria. For Phase 3 NBZ samples, some dioxins and metal results were also qualified based on laboratory blank contamination criteria. The percentage of results qualified as non-detect based on laboratory blank contamination was less than 5 percent, as discussed in Appendix C, for all analyses except dioxins for Subarea 7 and NBZ (20 percent and 59 percent respectively). These results were qualified as non-detect "U" due to laboratory blank contamination.

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

Tables 4-2 through 4-5 provide a summary of analytes observed in equipment blanks and field blanks. No analytes were detected in the trip blank samples. Most of the detected compounds in the equipment and field blanks were below the RLs but above the MDLs. Compounds detected above the RL are highlighted yellow in the associated tables. The ASTM International Type II water used to generate the equipment and field blanks. The field blanks (source water) had detections of various analytes for SVOC SIM, (above the RL) indicating inherent low level contamination in the source water used.

ASTM International Type II water is not typically certified “clean” to the low RLs established for the low level methods used for Phase 3 Subarea 7 and NBZ sampling. CDM Smith will continue to monitor ASTM International Type II water field blanks for detected concentrations of analytes throughout the sampling program.

A review of the Phase 3 equipment blanks for Subarea 7 and NBZ was also performed. In general, minimal analytes were detected above their respective RLs. All Phase 3 equipment blanks will continue to be monitored to determine if these low level detections are consistent, thus indicating a possible deficiency in decontamination procedures and/or source water impacts that need to be addressed and corrected.

For Subarea 7, some metals and SVOC SIM results were qualified based on field/equipment blanks results. For NBZ, some metal results were qualified based on field/equipment blank criteria. To date, chemical detections in equipment blank samples appear to be random occurrences.

4.7.4 Representativeness, Comparability, and Sensitivity

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

4.7.4.1 Representativeness

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

Representativeness also can be monitored by reviewing field documentation and/or performing field audits. For this report, a detailed review was performed on the CoC forms, laboratory sample confirmation logs, and data validation packages. Laboratory QA/QC requirements were included in the Master FSP (CDM Smith 2012a) and laboratory statements of work (SOWs) to ensure that the laboratory analytical results were representative of true field conditions.

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

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

4.7.4.2 Comparability

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

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

4.7.4.3 Sensitivity

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

Detection Limits

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

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

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

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

In summary, for all methods analyzed for Subarea 7, results for some of the analytes were qualified as estimated due to RL criteria for dioxins, metals, hexavalent chromium, mercury, TPH EFH, TPH GRO pesticides, PCB/PCTs, and SVOC SIM. For NBZ, results for some of the analytes were qualified as estimated due to RL criteria for dioxins, nitrates, metals, mercury, TPH-EFH, TPH-GRO, pesticides, herbicides and SVOC SIM results. For the data validated in this TM, RLs for a majority of the sample results were low enough to compare to the RLs stated in the Master FSP (CDM Smith 2012a). RLs above those stated in the Master FSP (CDM Smith 2012a) will be evaluated on a case by case basis to see if resampling is required.

4.8 Dioxin Data Quality and Usability

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

In layman's terms an EMPC result indicates that there is the detected presence of a compound above detection level but it does not meet the appropriate quality assurance/quality control reporting level criteria to absolutely confirm whether that detected concentration is a dioxin compound identified by the analytical system. What it does indicate is that a possible low level dioxin peak has been identified by the analytical instrument but its concentration level is marginally above detection level.

For the Subarea 7 and NBZ dioxin analyses, Eurofins Lancaster Laboratory was directed to qualify any EMPC values with a "Q" qualifier in order to identify EMPC values for future evaluation. In the Appendix A tables, the "Q" qualified data identified by the laboratory indicating an EMPC value, has had the qualifier "J-EMPC" added to the final qualifier column to replace the laboratory "Q" qualifier. This is to aid the data user in identifying values that are EMPCs.

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

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

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

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

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

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

4.9 Review of Selected Validation Reports

CDM Smith performed a review of the validation reports identified in Table 4-1. This review involved comparing the validation report results against the laboratory data packages as well as the validation

guidance documents. All validation report results were verified against the laboratory data packages and validation guidance documents were followed as required.

4.10 Data Completeness

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

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

Equation A.

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

Where:

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

Equation B.

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

Where:

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

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

A total of 168 soil samples including the field duplicates were collected and analyzed. Some locations required only a subsurface sample while other locations required both a surface and a subsurface sample. The number of subsurface samples to be collected at each location was not pre-determined because the total depth of each boring varies depending on the local geology. One sample was not collected in NBZ as it was inaccessible and unsafe to sample. The completeness goal for the actual number of samples collected compared to the number of samples planned is considered acceptable as a sample was collected from each location (depending on shallow refusal).

The completeness goal achieved for acceptable data was 99.98 percent for Subarea 7 and 100 percent for NBZ for the number of measurements judged to be valid versus the total number of measurements made for all samples analyzed. Tables 4-6 and 4-7 summarize all results that were estimated or rejected for Phase 3 Subarea 7 NBZ respectively.

No sample results were rejected for NBZ. The following Phase 3 Subarea 7 individual analyte result was rejected per analyses:

- Method 8081B
  - One out of 189 individual pesticide analyte results (0.529 percent)

Table 4-6 Summary of Data Completeness Following Data Validation – Subarea 7

	Number of Analyte Detections Without Qualifiers	Number of Estimated Results	Number of Rejected Results	Number of Nondetect Results	Number of Estimated Nondetect Results	Total Analytes Detect and Nondetect	Percent of Analyte Results Judged Valid Versus Total Analyte Results Collected
Dioxins – 1613B	273	782	--	370	15	1,440	100
Metals - 6010C	1,165	593	--	260	36	2,054	100
Metals – 6020A	118	148	--	48	2	316	100
Hexavalent Chromium – 7199	--	1	--	--	--	1	100
Mercury – 7471B	28	32	--	19	1	79	100
TPH-EFH/GRO – 8015M	98	77	--	239	2	416	100
Pesticides – 8081B	3	11	1	173	1	189	99.47
PCB/PCTs – 8082A	11	30	--	953	38	1,032	100
SVOC SIM – 8270D SIM	326	403	--	1,317	8	2,054	100
Completeness Total for Phase 3 Subarea 3 Samples Collected and Judged Valid							**99.47**

Table 4-7 Summary of Data Completeness Following Data Validation – NBZ

	Number of Analyte Detections Without Qualifiers	Number of Estimated Results	Number of Rejected Results	Number of Nondetect Results	Number of Estimated Nondetect Results	Total Analytes Detect and Nondetect	Percent of Analyte Results Judged Valid Versus Total Analyte Results Collected
Dioxins – 1613B	54	119	--	351	16	540	100
Nitrate - 300	--	4	--	--	--	4	100
Metals – 6010C	260	81	--	42	7	390	100
Metals – 6020A	26	29	--	5	--	60	100
Mercury – 7471B	4	7	--	4	--	15	100
Cyanide – 9012B	--	--	--	--	--	20	100
TPH-EFH/GRO – 8015M	65	39	--	172	--	276	100
Pesticides – 8081B	5	40	--	647	1	693	100
PCB/PCTs – 8082A	--	--	--	180	--	180	100
Herbicides – 8151A	3	7	--	89	1	100	100
SVOC SIM – 8270D SIM	73	156	--	695	12	936	100
Completeness Total for Phase 3 Subarea 6 Samples Collected and Judged Valid							**100**

The completeness goals for both the locations sampled and the number of measurements judged to be valid were met for both Phase 3 Subarea 7 and NBZ.

Sampling deviations from procedures described in the Master FSP (CDM Smith 2012a) are discussed in Section 2.7 of this TM. Deviations did not impact DQOs for this sampling event. The data reported and not rejected are suitable for their intended use for characterization of Area IV of SSFL. The DQIs identified in the Master FSP (CDM Smith 2012a) met appropriate criteria. The achievement of the completeness goals for the data indicates a sufficient amount of usable data has been generated for project decisions.

4.11 Assessment of Data Usability and Reconciliation with Master FSP Goals

Over 99 percent of the data validated for Subarea 7 and NBZ, and reported in this TM, are suitable for their intended use for site characterization. Rejected sample results are not suitable for project use. The rejected analyte results do not impact achievement of the overall project objectives. The RLs reported generally met the expected limits proposed by the analytical laboratories in their subcontract agreements with CDM Smith.

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

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

Section 5

References

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

CDM Smith. 2012b. *Addendum No. 6 to Master Field Sampling Plan for Chemical Data Gap Investigation, Phase 3 Soil Chemical Sampling at Area IV, Santa Susana Field Laboratory, Ventura County, California, Subarea 7*.

CDM Smith. 2012c. *Master Field Sampling Plan for Chemical Data Gap Investigation, Phase 3 Soil Chemical Sampling at Area IV, Santa Susana Field Laboratory, Ventura County, California.* April 11.

CDM Smith. 2013. *Addendum No. 9 to Master Field Sampling Plan for Chemical Data Gap Investigation, Phase 3 Soil Chemical Sampling at Northern Buffer Zone, Santa Susana Field Laboratory, Ventura County, California.*

CH2M Hill. 2008. *Group 5 – Central Portion of Areas III and IV RCRA Facility Investigation Report, Santa Susana Field Laboratory, Ventura County, California*. November.

Department of Toxic Substance and Control. 2010. Administrative Order on Consent for RA, Docket Number HAS-CO 10/11-037. December 6.

EPA. 2008. EPA *Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review*.

EPA. 2005. *EPA Contract Laboratory Program National Functional Guidelines for Chlorinated Dioxin/Furan Data Review*.

EPA. 2004. *EPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review.*

N

Legend

- Sample Location
- Area IV Subarea
- Site Area

Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo and the GIS User Community.

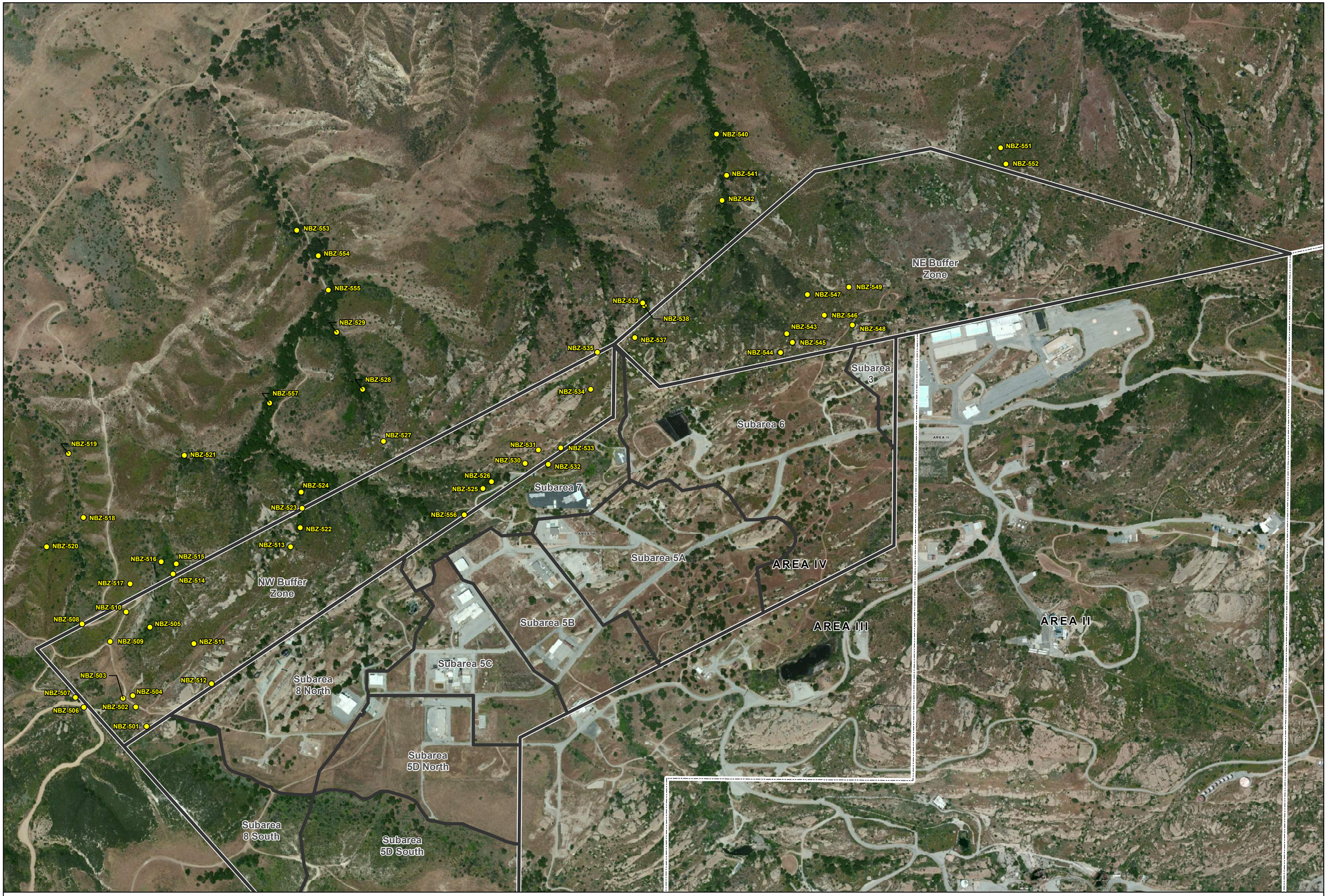
Subarea 7 Phase 3 Sample Locations

0 62.5 125 250 375 Feet

Santa Susana Field Laboratory
Ventura County, California
Exhibit 1

CDM Smith

C:_projects\SantaSusana\GIS\MXD\SSFL_Phase3_7_DG_Sampling_Locations_18x24_20140625.mxd 7/8/2014



N

Legend

- Sample Location
- Area IV Subarea
- Site Area

Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo and the GIS User Community.

Northern Buffer Zone Phase 3 Sample Locations

0 220 440 880 1,320 Feet

Santa Susana Field Laboratory
Ventura County, California
Exhibit 2

CDM Smith

C:_projects\SantaSusana\GIS\MXD\SSFL_Phase3_NBZ_DG_Sampling_Locations_18x24_20140708.mxd 9/12/2014

Appendix A
Analytical Results Tables

SSFL Main Qualification Definitions and Notes

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

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

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

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

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

SSFL Specific Qualification Definitions

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

Appendix A1
General Analytical Methods, CAS Number and Chemical Name
Subareas 7 and NBZ

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

Appendix A1
General Analytical Methods, CAS Number and Chemical Name
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Analytical Method	CAS Number	Chemical Name	Alternative Chemical Name
8330A	6629-29-4	2,4-Diamino-6-nitrotoluene	
8330A	78-11-5	Pentaerythritol Tetranitrate	
8330A	88-72-2	2-Nitrotoluene	
8330A	99-08-1	3-Nitrotoluene	
8330A	99-35-4	1,3,5-Trinitrobenzene	
8330A	99-99-0	4-Nitrotoluene	
8330A	121-14-2	2,4-Dinitrotoluene	
8330A	98-95-3	Nitrobenzene	
8330A	99-65-0	m-Dinitrobenzene	
8151A	120-36-5	Dichlorprop	
8151A	1918-00-9	Dicamba	
8151A	75-99-0	2,2-Dichlor-Propionic Acid	
8151A	88-85-7	Dinitrobutyl Phenol	
8151A	93-65-2	Methylchlorophenoxypropionic acid	MCPP
8151A	93-72-1	2,4,5-Trichlorophenoxyacetic acid	Silvex (2,4,5-TP)
8151A	93-76-5	2,4,5-Trichlorophenoxyacetic Acid	2,4,5-T
8151A	94-74-6	2-Methyl-4-Chlorophenoxyacetic Acid	MCPA
8151A	94-75-7	Dichlorophenoxyacetic Acid	2,4-D
8151A	94-82-6	4-(2,4-dichlorophenoxy)butanoic acid	2,4 DB
8081A	8001-35-2	Chlorinated Camphene	Toxaphene
8081A	1024-57-3	Heptachlor Epoxide	
8081A	1031-07-8	Endosulfan Sulfate	
8081A	2385-85-5	Mirex	
8081A	309-00-2	Aldrin	
8081A	319-84-6	Alpha-BHC	
8081A	319-85-7	Beta-BHC	
8081A	319-86-8	Delta-BHC	
8081A	33213-65-9	Endosulfan II	
8081A	50-29-3	4,4'-DDT	
8081A	53494-70-5	Endrin Ketone	
8081A	57-74-9	Chlordane	
8081A	58-89-9	Gamma-BHC (Lindane)	
8081A	60-57-1	Dieldrin	
8081A	72-20-8	Endrin	
8081A	72-43-5	Methoxychlor	
8081A	72-54-8	4,4'-DDD	
8081A	72-55-9	4,4'-DDE	
8081A	7421-93-4	Endrin Aldehyde	
8081A	76-44-8	Heptachlor	
8081A	959-98-8	Endosulfan I	
1613B	1746-01-6	2,3,7,8-Tetrachlorodibenzo-p-dioxin	2,3,7,8-TCDD
1613B	19408-74-3	1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	1,2,3,7,8,9-HxCDD
1613B	3268-87-9	1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin	OCDD
1613B	35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	1,2,3,4,6,7,8-HpCDD
1613B	39001-02-0	1,2,3,4,6,7,8,9-Octachlorodibenzofuran	OCDF
1613B	39227-28-6	1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	1,2,3,4,7,8-HxCDD
1613B	40321-76-4	1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	1,2,3,7,8-PeCDD
1613B	51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	2,3,7,8-TCDF
1613B	55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	1,2,3,4,7,8,9-HpCDF
1613B	57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	2,3,4,7,8-PeCDF
1613B	57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	1,2,3,7,8-PeCDF
1613B	57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	1,2,3,6,7,8-HxCDF
1613B	57653-85-7	1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	1,2,3,6,7,8-HxCDD
1613B	60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	2,3,4,6,7,8-HxCDF
1613B	67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	1,2,3,4,6,7,8-HpCDF
1613B	70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	1,2,3,4,7,8-HxCDF
1613B	72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	1,2,3,7,8,9-HxCDF
8082	11096-82-5	Aroclor 1260	
8082	11097-69-1	Aroclor 1254	
8082	11100-14-4	Aroclor 1268	
8082	11104-28-2	Aroclor 1221	

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

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

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

			Sample Name	SL-500-SA7-SB-0.0-0.5		SL-501-SA7-SB-0.0-0.5		SL-502-SA7-SB-0.0-0.5		SL-503-SA7-SB-0.0-0.5		SL-504-SA7-SB-0.0-0.5		SL-504-SA7-SB-4.0-5.0		SL-505-SA7-SB-0.0-0.5	
			Sample Type	N		N		N		N		N		N		N	
			Sample Date	04/17/2013		04/17/2013		04/17/2013		04/22/2013		04/22/2013		04/22/2013		04/17/2013	
			SDG	PH033		PH033		PH033		PH036		PH036		PH036		PH033	
			Start Depth	0		0		0		0		0		4		0	
			End Depth	0.5		0.5		0.5		0.5		0.5		5		0.5	
Analytic Method	CAS Number	Chemical Name	Unit														
1613B	1746-01-6	2,3,7,8-TCDD	ng/kg	0.0274	J-EMPC J (Z)	0.981	U	0.0442	J-EMPC J (Z)	0.0642	J-EMPC J (Z)	0.0782	J (Z)	1.04	U	4.35	
1613B	19408-74-3	1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	ng/kg	0.437	J (Z)	0.42	J (Z)	0.746	J (Z)	1	J (Z)	5.53		0.755	J (Z)	18.1	
1613B	3268-87-9	OCDD	ng/kg	154		38.6		248		192		1470		153		23100	J (*#)
1613B	35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	ng/kg	14.8		4.02	J (Z)	25.7		25		214		21.2		2000	J (*#)
1613B	39001-02-0	OCDF	ng/kg	4.86	J (Z)	1.49	J (Z)	7.16	J (Z)	4.3	J (Z)	108		11.1		177	
1613B	39227-28-6	1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	ng/kg	0.421	J (Z)	0.241	J-EMPC J (Z)	0.926	J (Z)	0.442	J (Z)	3.1	J (Z)	0.329	J-EMPC J (Z)	3660	J (*#)
1613B	40321-76-4	1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	ng/kg	5	J-EMPC U (B)	4.9	J-EMPC U (B)	0.277	J (Z)	0.335	J (Z)	1.13	J (Z)	0.163	J (Z)	15.9	
1613B	51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	ng/kg	0.271	J (Z)	0.0772	J-EMPC J (Z)	0.653	J (Z)	0.815	J (Z)	1.04		0.133	J (Z)	1.33	
1613B	55673-89-7	1,2,3,4,7,8,9-HPCDF	ng/kg	0.343	J (Z)	0.161	J (Z)	0.448	J (Z)	0.247	J (Z)	2.32	J (Z)	0.313	J-EMPC J (Z)	12.2	
1613B	57117-31-4	2,3,4,7,8-PECDF	ng/kg	0.472	J-EMPC J (Z)	0.373	J-EMPC J (Z)	0.984	J (Z)	0.547	J (Z)	0.95	J (Z)	0.187	J (Z)	2.54	J (Z)
1613B	57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	ng/kg	0.52	J (Z)	0.36	J (Z)	2.25	J (Z)	0.856	J (Z)	1.35	J (Z)	0.203	J-EMPC J (Z)	6.58	
1613B	57117-44-9	1,2,3,6,7,8-HXCDF	ng/kg	0.307	J (Z)	0.195	J (Z)	0.525	J (Z)	0.402	J (Z)	1.22	J (Z)	0.206	J-EMPC J (Z)	7.55	
1613B	57653-85-7	1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	ng/kg	0.688	J (Z)	0.324	J (Z)	1	J (Z)	1.09	J-EMPC J (Z)	7.06		0.835	J (Z)	54.8	
1613B	60851-34-5	2,3,4,6,7,8-HXCDF	ng/kg	0.392	J-EMPC J (Z)	0.242	J (Z)	0.497	J (Z)	0.309	J (Z)	1.7	J (Z)	0.255	J-EMPC J (Z)	9.07	
1613B	67562-39-4	1,2,3,4,6,7,8-HPCDF	ng/kg	2.82	J (Z)	0.929	J (Z)	3.89	J (Z)	2.35	J (Z)	36.6		3.96	J (Z)	101	
1613B	70648-26-9	1,2,3,4,7,8-HXCDF	ng/kg	0.949	J (Z)	0.234	J-EMPC J (Z)	0.788	J-EMPC J (Z)	0.42	J (Z)	1.49	J (Z)	0.235	J-EMPC J (Z)	6.59	
1613B	72918-21-9	1,2,3,7,8,9-HXCDF	ng/kg	5	U	0.277	J (Z)	0.232	J (Z)	0.141	J (Z)	5.13	U	0.181	J (Z)	4.93	U

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

			Sample Name	SL-506-SA7-SB-0.0-0.5		SL-507-SA7-SB-0.0-0.5		SL-508-SA7-SB-0.0-0.5		SL-509-SA7-SB-0.0-0.5		SL-510-SA7-SB-0.0-0.5		SL-810-SA7-SB-0.0-0.5		SL-511-SA7-SB-0.0-0.5	
			Sample Type	N		N		N		N		N		FD		N	
			Sample Date	04/25/2013		04/24/2013		04/25/2013		04/25/2013		04/22/2013		04/22/2013		04/19/2013	
			SDG	PH039		PH039		PH039		PH039		PH036		PH036		PH035	
			Start Depth	0		0		0		0		0		0		0	
			End Depth	0.5		0.5		0.5		0.5		0.5		0.5		0.5	
Analytic Method	CAS Number	Chemical Name	Unit														
1613B	1746-01-6	2,3,7,8-TCDD	ng/kg	0.0231	J-EMPC J (Z)	1.01	U	0.0607	J (Z)	0.0597	J-EMPC J (Z)	0.999	U	0.994	U	0.279	J (Z)
1613B	19408-74-3	1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	ng/kg	0.29	J-EMPC J (Z)	0.374	J-EMPC J (Z)	0.505	J-EMPC J (Z)	3.43	J (Z)	0.703	J (Z)	0.622	J (Z)	9.77	
1613B	3268-87-9	OCDD	ng/kg	59.9		123		200		1090		177	J (Q)	171		5740	J (*#)
1613B	35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	ng/kg	5.55		12.9		22.6		154		23.2		22.3		508	
1613B	39001-02-0	OCDF	ng/kg	1.96	J (Z)	4.63	J (Z)	12.6		87.8		10.9		11.8		96.4	
1613B	39227-28-6	1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	ng/kg	5.01	J-EMPC U (B)	0.144	J-EMPC J (Z)	0.257	J (Z)	1.8	J (Z)	0.317	J (Z)	0.357	J-EMPC J (Z)	4.09	J (Z)
1613B	40321-76-4	1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	ng/kg	5.01	J-EMPC U (B)	5.05	J-EMPC U (B)	0.265	J-EMPC J (Z)	5.08	U	0.203	J (Z)	0.135	J-EMPC J (Z)	1.94	J (Z)
1613B	51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	ng/kg	0.154	J (Z)	0.224	J-EMPC J (Z)	0.628	J (Z)	0.88	J (Z)	0.258	J (Z)	0.249	J-EMPC J (Z)	0.972	J (Z)
1613B	55673-89-7	1,2,3,4,7,8,9-HPCDF	ng/kg	5.01	J-EMPC U (B)	5.05	J-EMPC U (B)	0.386	J-EMPC J (Z)	2.03	J (Z)	0.416	J (Z)	0.396	J (Z)	3.99	J (Z)
1613B	57117-31-4	2,3,4,7,8-PECDF	ng/kg	5.01	J-EMPC U (B)	0.288	J-EMPC J (Z)	0.773	J (Z)	1.04	J (Z)	0.824	J (FD, Z)	0.375	J (FD, Z)	1.77	J (Z)
1613B	57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	ng/kg	0.217	J (Z)	0.304	J (Z)	2.61	J (Z)	2.32	J (Z)	0.591	J (Z)	0.591	J (Z)	1.52	J (Z)
1613B	57117-44-9	1,2,3,6,7,8-HXCDF	ng/kg	0.171	J (Z)	0.169	J-EMPC J (Z)	0.595	J (Z)	1.26	J (Z)	0.497	J (FD, Z)	0.267	J (FD, Z)	1.89	J (Z)
1613B	57653-85-7	1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	ng/kg	0.257	J (Z)	0.488	J-EMPC J (Z)	0.772	J (Z)	5.6		0.925	J (Z)	0.79	J (Z)	16.3	
1613B	60851-34-5	2,3,4,6,7,8-HXCDF	ng/kg	5.01	J-EMPC U (B)	0.167	J-EMPC J (Z)	0.481	J (Z)	1.34	J (Z)	0.478	J (Z)	0.315	J (Z)	2.35	J (Z)
1613B	67562-39-4	1,2,3,4,6,7,8-HPCDF	ng/kg	0.952	J (Z)	1.8	J (Z)	5.26		30.7		4.7	J (Z)	4.4	J (Z)	37.2	
1613B	70648-26-9	1,2,3,4,7,8-HXCDF	ng/kg	0.209	J-EMPC J (Z)	0.248	J-EMPC J (Z)	1.64	J (Z)	2.67	J (Z)	1.97	J (FD, Z)	0.435	J (FD, Z)	2.86	J (Z)
1613B	72918-21-9	1,2,3,7,8,9-HXCDF	ng/kg	0.11	J (Z)	5.05	U	0.19	J-EMPC J (Z)	5.08	U	0.175	J-EMPC J (Z)	0.111	J (Z)	5.18	U

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			Sample Name	SL-512-SA7-SB-0.0-0.5		SL-513-SA7-SB-0.0-0.5		SL-913-SA7-SB-0.0-0.5		SL-514-SA7-SB-0.0-0.5		SL-515-SA7-SB-0.0-0.5		SL-516-SA7-SB-0.0-0.5	
			Sample Type	N		N		FD		N		N		N	
			Sample Date	04/23/2013		06/04/2013		06/04/2013		06/06/2013		06/06/2013		06/04/2013	
			SDG	PH037		PH046		PH046		PH049		PH049		PH046	
			Start Depth	0		0		0		0		0		0	
			End Depth	0.5		0.5		0.5		0.5		0.5		0.5	
Analytic Method	CAS Number	Chemical Name	Unit												
1613B	1746-01-6	2,3,7,8-TCDD	ng/kg	0.999	U	0.11	J (FD, Z)	0.0389	J (FD, Z)	0.0421	J-EMPC J (Z)	0.0419	J-EMPC J (Z)	0.0468	J (Z)
1613B	19408-74-3	1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	ng/kg	0.187	J (Z)	1.87	J (FD, Z)	0.998	J (FD, Z)	2.02	J (Z)	5.04	U (B)	4.96	J-EMPC U (B)
1613B	3268-87-9	OCDD	ng/kg	39.4		906	J (FD)	396	J (FD)	1320		13.5		9.93	U (B)
1613B	35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	ng/kg	3.84	J (Z)	95.8	J (FD)	40.7	J (FD)	138		1.47	J (Z)	4.96	J-EMPC U (B)
1613B	39001-02-0	OCDF	ng/kg	1.66	J (Z)	82.8	J (FD)	28.3	J (FD)	109		0.979	J (Z)	9.93	U (B)
1613B	39227-28-6	1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	ng/kg	0.0741	J (Z)	1.06	J-EMPC J (FD, Z)	0.527	J (FD, Z)	1.29	J (Z)	0.0344	J-EMPC J (Z)	4.96	U (B)
1613B	40321-76-4	1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	ng/kg	0.0631	J-EMPC J (Z)	0.451	J (Z)	4.96	J-EMPC U (B)	0.458	J (Z)	5.04	U	4.96	U
1613B	51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	ng/kg	0.0662	J-EMPC J (Z)	0.763	J (FD, Z)	0.457	J (FD, Z)	2.63		0.0312	J-EMPC J (Z)	0.993	J-EMPC U (B)
1613B	55673-89-7	1,2,3,4,7,8,9-HPCDF	ng/kg	4.99	J-EMPC U (B)	1.28	J (Z)	0.775	J (Z)	4.01	J (Z)	5.04	U (B)	4.96	J-EMPC U (B)
1613B	57117-31-4	2,3,4,7,8-PECDF	ng/kg	0.0832	J-EMPC J (Z)	0.839	J (Z)	0.691	J (Z)	3.48	J (Z)	5.04	J-EMPC U (B)	4.96	U (B)
1613B	57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	ng/kg	4.99	U (B)	0.702	J (Z)	0.646	J (Z)	3.12	J (Z)	5.04	J-EMPC U (B)	4.96	U (B)
1613B	57117-44-9	1,2,3,6,7,8-HXCDF	ng/kg	4.99	J-EMPC U (B)	0.913	J (Z)	0.706	J (Z)	2.73	J (Z)	5.04	U	0.0854	J-EMPC J (Z)
1613B	57653-85-7	1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	ng/kg	0.196	J-EMPC J (Z)	3.18	J (FD, Z)	1.49	J (FD, Z)	3.93	J (Z)	5.04	U (B)	0.0848	J (Z)
1613B	60851-34-5	2,3,4,6,7,8-HXCDF	ng/kg	4.99	U (B)	0.894	J (Z)	0.624	J (Z)	3.13	J (Z)	5.04	U	4.96	U (B)
1613B	67562-39-4	1,2,3,4,6,7,8-HPCDF	ng/kg	0.796	J (Z)	19.2	J (FD)	8.72	J (FD)	39.3		0.366	J (Z)	4.96	J-EMPC U (B)
1613B	70648-26-9	1,2,3,4,7,8-HXCDF	ng/kg	4.99	J-EMPC U (B)	0.876	J (Z)	0.864	J (Z)	6.25		5.04	J-EMPC U (B)	4.96	U (B)
1613B	72918-21-9	1,2,3,7,8,9-HXCDF	ng/kg	4.99	J-EMPC U (B)	5.09	U (B)	4.96	U (B)	4.96	U	5.04	J-EMPC U (B)	4.96	J-EMPC U (B)

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			Sample Name	SL-517-SA7-SB-0.0-0.5		SL-518-SA7-SB-0.0-0.5		SL-519-SA7-SB-0.0-0.5		SL-819-SA7-SB-0.0-0.5		SL-519-SA7-SB-2.0-3.0		SL-520-SA7-SB-0.0-0.5	
			Sample Type	N		N		N		FD		N		N	
			Sample Date	04/22/2013		04/19/2013		04/25/2013		04/25/2013		04/25/2013		04/19/2013	
			SDG	PH036		PH035		PH039		PH039		PH039		PH035	
			Start Depth	0		0		0		0		2		0	
			End Depth	0.5		0.5		0.5		0.5		3		0.5	
Analytic Method	CAS Number	Chemical Name	Unit												
1613B	1746-01-6	2,3,7,8-TCDD	ng/kg	0.126	J (Z)	0.139	J (Z)	0.0651	J-EMPC J (FD, Z)	0.0291	J-EMPC J (FD, Z)	1.01	U	0.0444	J-EMPC J (Z)
1613B	19408-74-3	1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	ng/kg	3.72	J (Z)	2.53	J (Z)	0.691	J (Z)	0.654	J (Z)	0.183	J (Z)	0.479	J (Z)
1613B	3268-87-9	OCDD	ng/kg	1350		948		270	J (Q)	174		35.1		150	
1613B	35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	ng/kg	187		128		25.2		17.1		4.07	J (Z)	18.9	
1613B	39001-02-0	OCDF	ng/kg	99.7		70		7.75	J (FD, Z)	13.7	J (FD)	1.54	J (Z)	5.85	J (Z)
1613B	39227-28-6	1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	ng/kg	1.84	J (Z)	1.39	J (Z)	0.276	J-EMPC J (Z)	0.317	J (Z)	0.119	J-EMPC J (Z)	0.209	J (Z)
1613B	40321-76-4	1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	ng/kg	0.758	J-EMPC J (Z)	0.6	J-EMPC J (Z)	5.1	J-EMPC U (B)	5.08	J-EMPC U (B)	5.06	J-EMPC U (B)	0.174	J-EMPC J (Z)
1613B	51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	ng/kg	3.69		1.91		0.365	J-EMPC J (FD, Z)	0.184	J-EMPC J (FD, Z)	0.142	J (Z)	0.244	J-EMPC J (Z)
1613B	55673-89-7	1,2,3,4,7,8,9-HPCDF	ng/kg	1.86	J (Z)	1.36	J (Z)	0.344	J (Z)	0.298	J-EMPC J (Z)	5.06	J-EMPC U (B)	0.219	J (Z)
1613B	57117-31-4	2,3,4,7,8-PECDF	ng/kg	2.93	J (Z)	1.73	J (Z)	0.495	J-EMPC J (Z)	0.484	J-EMPC J (Z)	0.16	J-EMPC J (Z)	0.497	J (Z)
1613B	57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	ng/kg	18		5.05	J (Z)	0.711	J (Z)	0.577	J-EMPC J (Z)	0.25	J-EMPC J (Z)	0.693	J (Z)
1613B	57117-44-9	1,2,3,6,7,8-HXCDF	ng/kg	4.56	J (Z)	1.23	J (Z)	0.299	J-EMPC J (Z)	0.307	J-EMPC J (Z)	5.06	J-EMPC U (B)	0.27	J (Z)
1613B	57653-85-7	1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	ng/kg	5.96		4.08	J (Z)	1.02	J (Z)	0.728	J (Z)	0.209	J (Z)	0.77	J (Z)
1613B	60851-34-5	2,3,4,6,7,8-HXCDF	ng/kg	2.02	J (Z)	1.12	J (Z)	0.303	J (Z)	0.284	J (Z)	5.06	J-EMPC U (B)	0.234	J (Z)
1613B	67562-39-4	1,2,3,4,6,7,8-HPCDF	ng/kg	30.9		21.1		2.91	J (Z)	3.38	J (Z)	0.565	J (Z)	2.42	J (Z)
1613B	70648-26-9	1,2,3,4,7,8-HXCDF	ng/kg	2.9	J (Z)	2.24	J (Z)	0.486	J (Z)	0.435	J (Z)	5.06	U (B)	0.327	J (Z)
1613B	72918-21-9	1,2,3,7,8,9-HXCDF	ng/kg	5.08	U	5.1	U	0.114	J-EMPC J (Z)	0.108	J-EMPC J (Z)	5.06	J-EMPC U (B)	5.04	U

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			Sample Name	SL-521-SA7-SB-0.0-0.5		SL-522-SA7-SB-0.0-0.5		SL-524-SA7-SB-0.0-0.5		SL-524-SA7-SB-1.0-2.0		SL-924-SA7-SB-1.0-2.0		SL-525-SA7-SB-0.0-0.5	
			Sample Type	N		N		N		N		FD		N	
			Sample Date	04/15/2013		04/15/2013		06/04/2013		06/04/2013		06/04/2013		04/23/2013	
			SDG	PH031		PH031		PH046		PH046		PH046		PH037	
			Start Depth	0		0		0		1		1		0	
			End Depth	0.5		0.5		0.5		2		2		0.5	
Analytic Method	CAS Number	Chemical Name	Unit												
1613B	1746-01-6	2,3,7,8-TCDD	ng/kg	0.0697	J-EMPC J (Z)	0.0534	J (Z)	1.04	J-EMPC U (B)	1.07	J-EMPC UJ (B, FD)	1.07	UJ (FD)	1.02	U
1613B	19408-74-3	1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	ng/kg	1.89	J (Z)	0.961	J (Z)	5.22	U (B)	5.34	U (B)	5.37	J-EMPC U (B)	0.719	J (Z)
1613B	3268-87-9	OCDD	ng/kg	909		274		41		10.5	J (FD, Z)	2.71	J (FD, Z)	174	
1613B	35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	ng/kg	84.5		32		2.69	J (Z)	0.859	J (FD, Z)	5.37	UJ (B, FD)	17.8	
1613B	39001-02-0	OCDF	ng/kg	11.5		4.2	J (Z)	1.19	J (Z)	10.7	J-EMPC UJ (B, FD)	10.7	UJ (B, FD)	7.98	J (Z)
1613B	39227-28-6	1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	ng/kg	1.12	J (Z)	0.474	J-EMPC J (Z)	5.22	U (B)	5.34	J-EMPC UJ (B, FD)	5.37	J-EMPC UJ (B, FD)	0.29	J (Z)
1613B	40321-76-4	1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	ng/kg	0.367	J-EMPC J (Z)	0.263	J-EMPC J (Z)	5.22	U (B)	5.34	J-EMPC U (B)	5.37	U (B)	0.235	J (Z)
1613B	51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	ng/kg	0.142	J (Z)	0.339	J (Z)	0.0282	J (Z)	0.0189	J-EMPC J (Z)	0.0139	J (Z)	0.35	J (Z)
1613B	55673-89-7	1,2,3,4,7,8,9-HPCDF	ng/kg	0.317	J (Z)	5.17	J-EMPC U (B)	5.22	U (B)	5.34	UJ (B, FD)	5.37	J-EMPC UJ (B, FD)	0.351	J (Z)
1613B	57117-31-4	2,3,4,7,8-PECDF	ng/kg	0.246	J (Z)	0.457	J (Z)	5.22	J-EMPC U (B)	5.34	J-EMPC U (B)	5.37	U (B)	0.726	J-EMPC J (Z)
1613B	57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	ng/kg	0.588	J (Z)	0.359	J-EMPC J (Z)	0.646	J (Z)	5.34	UJ (B, FD)	5.37	J-EMPC UJ (B, FD)	4.47	J (Z)
1613B	57117-44-9	1,2,3,6,7,8-HXCDF	ng/kg	0.305	J (Z)	0.244	J (Z)	0.129	J-EMPC J (Z)	5.34	J-EMPC UJ (B, FD)	5.37	J-EMPC UJ (B, FD)	0.544	J (Z)
1613B	57653-85-7	1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	ng/kg	2.92	J (Z)	1.31	J (Z)	0.171	J (Z)	0.0966	J-EMPC J (FD, Z)	5.37	UJ (B, FD)	1.23	J (Z)
1613B	60851-34-5	2,3,4,6,7,8-HXCDF	ng/kg	0.338	J (Z)	0.259	J-EMPC J (Z)	0.177	J (Z)	5.34	U (B)	5.37	U (B)	0.571	J (Z)
1613B	67562-39-4	1,2,3,4,6,7,8-HPCDF	ng/kg	5.24		2.24	J (Z)	0.644	J (Z)	5.34	UJ (B, FD)	5.37	UJ (B, FD)	6.02	
1613B	70648-26-9	1,2,3,4,7,8-HXCDF	ng/kg	0.429	J (Z)	0.295	J (Z)	5.22	J-EMPC U (B)	5.34	J-EMPC U (B)	5.37	J-EMPC U (B)	0.393	J (Z)
1613B	72918-21-9	1,2,3,7,8,9-HXCDF	ng/kg	5.09	J-EMPC U (B)	5.17	J-EMPC U (B)	5.22	U (B)	5.34	J-EMPC U (B)	5.37	J-EMPC U (B)	0.129	J (Z)

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			Sample Name	SL-525-SA7-SB-4.0-5.0		SL-525-SA7-SB-6.5-7.5		SL-525-SA7-SB-9.5-10.5		SL-526-SA7-SB-0.0-0.5		SL-526-SA7-SB-3.5-4.5		SL-526-SA7-SB-9.0-10.0	
			Sample Type	N		N		N		N		N		N	
			Sample Date	06/03/2013		04/24/2013		06/03/2013		04/23/2013		04/23/2013		06/03/2013	
			SDG	PH045		PH038		PH045		PH037		PH037		PH045	
			Start Depth	4		6.5		9.5		0		3.5		9	
			End Depth	5		7.5		10.5		0.5		4.5		10	
Analytic Method	CAS Number	Chemical Name	Unit												
1613B	1746-01-6	2,3,7,8-TCDD	ng/kg	1.02	U	1.05	U	1.03	U	0.0301	J-EMPC J (Z)	1.03	U	0.0454	J-EMPC J (Z)
1613B	19408-74-3	1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	ng/kg	5.11	J-EMPC U (B)	0.248	J (Z)	5.13	U	0.401	J (Z)	5.16	U (B)	5.38	J-EMPC U (B)
1613B	3268-87-9	OCDD	ng/kg	17		72.5		2.3	J (Z)	92.6		72		279	
1613B	35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	ng/kg	1.75	J (Z)	7.37		5.13	U (B)	8.17		1.41	J (Z)	1.52	J (Z)
1613B	39001-02-0	OCDF	ng/kg	0.912	J (Z)	3.3	J (Z)	10.3	U (B)	2.71	J (Z)	0.578	J (Z)	10.8	J-EMPC U (B)
1613B	39227-28-6	1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	ng/kg	0.0574	J-EMPC J (Z)	0.138	J (Z)	5.13	U	0.212	J-EMPC J (Z)	0.0344	J-EMPC J (Z)	0.0742	J-EMPC J (Z)
1613B	40321-76-4	1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	ng/kg	5.11	U	0.0676	J-EMPC J (Z)	5.13	U	0.231	J-EMPC J (Z)	0.0848	J-EMPC J (Z)	5.38	U (B)
1613B	51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	ng/kg	1.02	U	0.098	J (Z)	1.03	U	0.0866	J-EMPC J (Z)	0.0316	J (Z)	0.0708	J-EMPC J (Z)
1613B	55673-89-7	1,2,3,4,7,8,9-HPCDF	ng/kg	5.11	J-EMPC U (B)	0.166	J (Z)	5.13	J-EMPC U (B)	0.149	J (Z)	5.16	J-EMPC U (B)	5.38	J-EMPC U (B)
1613B	57117-31-4	2,3,4,7,8-PECDF	ng/kg	5.11	J-EMPC U (B)	0.368	J (Z)	5.13	J-EMPC U (B)	0.258	J-EMPC J (Z)	0.0855	J (Z)	5.38	J-EMPC U (B)
1613B	57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	ng/kg	0.747	J (Z)	1.81	J (Z)	5.13	J-EMPC U (B)	1.7	J (Z)	0.316	J (Z)	5.38	J-EMPC U (B)
1613B	57117-44-9	1,2,3,6,7,8-HXCDF	ng/kg	5.11	J-EMPC U (B)	0.237	J (Z)	5.13	U (B)	0.226	J (Z)	5.16	J-EMPC U (B)	0.114	J (Z)
1613B	57653-85-7	1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	ng/kg	5.11	J-EMPC U (B)	0.432	J (Z)	5.13	U (B)	0.518	J (Z)	0.0768	J-EMPC J (Z)	5.38	U (B)
1613B	60851-34-5	2,3,4,6,7,8-HXCDF	ng/kg	5.11	J-EMPC U (B)	0.232	J (Z)	5.13	U	0.184	J (Z)	5.16	J-EMPC U (B)	5.38	U (B)
1613B	67562-39-4	1,2,3,4,6,7,8-HPCDF	ng/kg	0.572	J (Z)	2.28	J (Z)	5.13	J-EMPC U (B)	1.65	J (Z)	0.358	J (Z)	5.38	J-EMPC U (B)
1613B	70648-26-9	1,2,3,4,7,8-HXCDF	ng/kg	5.11	U (B)	5.25	J-EMPC U (B)	5.13	J-EMPC U (B)	0.206	J (Z)	5.16	U (B)	5.38	U (B)
1613B	72918-21-9	1,2,3,7,8,9-HXCDF	ng/kg	5.11	U (B)	5.25	J-EMPC U (B)	5.13	U	0.129	J-EMPC J (Z)	5.16	U	5.38	J-EMPC U (B)

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			Sample Name	SL-527-SA7-SB-0.0-0.5		SL-527-SA7-SB-2.5-3.5		SL-528-SA7-SB-0.0-0.5		SL-529-SA7-SB-0.0-0.5		SL-530-SA7-SB-0.0-0.5		SL-531-SA7-SB-0.0-0.5	
			Sample Type	N		N		N		N		N		N	
			Sample Date	04/24/2013		04/24/2013		04/24/2013		04/24/2013		04/18/2013		04/18/2013	
			SDG	PH038		PH038		PH038		PH038		PH034		PH034	
			Start Depth	0		2.5		0		0		0		0	
			End Depth	0.5		3.5		0.5		0.5		0.5		0.5	
Analytic Method	CAS Number	Chemical Name	Unit												
1613B	1746-01-6	2,3,7,8-TCDD	ng/kg	0.0353	J-EMPC J (Z)	0.0364	J-EMPC J (Z)	0.996	U	1.01	U	1.02	U	1	U
1613B	19408-74-3	1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	ng/kg	0.373	J (Z)	5.07	J-EMPC U (B)	4.98	J-EMPC U (B)	1.43	J (Z)	0.364	J (Z)	0.482	J-EMPC J (Z)
1613B	3268-87-9	OCDD	ng/kg	89.5		1.67	J (Z)	7.79	J (Z)	32.6		91.8		78.8	
1613B	35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	ng/kg	8.96		5.07	U (B)	0.988	J (Z)	4.89	J (Z)	8.58		7.64	
1613B	39001-02-0	OCDF	ng/kg	3.64	J (Z)	10.1	U (B)	9.96	U (B)	1.07	J (Z)	2.99	J (Z)	1.92	J (Z)
1613B	39227-28-6	1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	ng/kg	0.215	J (Z)	0.0312	J-EMPC J (Z)	0.0758	J-EMPC J (Z)	0.182	J-EMPC J (Z)	0.266	J (Z)	0.183	J (Z)
1613B	40321-76-4	1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	ng/kg	0.14	J (Z)	0.0809	J-EMPC J (Z)	0.039	J-EMPC J (Z)	0.117	J (Z)	0.208	J (Z)	0.173	J (Z)
1613B	51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	ng/kg	0.214	J-EMPC J (Z)	0.0271	J (Z)	0.0416	J-EMPC J (Z)	0.0747	J-EMPC J (Z)	0.131	J-EMPC J (Z)	0.136	J (Z)
1613B	55673-89-7	1,2,3,4,7,8,9-HPCDF	ng/kg	0.143	J (Z)	5.07	J-EMPC U (B)	4.98	J-EMPC U (B)	5.04	J-EMPC U (B)	0.132	J (Z)	0.0981	J-EMPC J (Z)
1613B	57117-31-4	2,3,4,7,8-PECDF	ng/kg	0.433	J (Z)	0.109	J (Z)	0.0636	J-EMPC J (Z)	0.141	J (Z)	0.432	J (Z)	0.272	J (Z)
1613B	57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	ng/kg	0.254	J (Z)	5.07	J-EMPC U (B)	4.98	U (B)	5.04	U (B)	0.327	J-EMPC J (Z)	5.01	U (B)
1613B	57117-44-9	1,2,3,6,7,8-HXCDF	ng/kg	0.197	J (Z)	5.07	U (B)	4.98	J-EMPC U (B)	0.544	J (Z)	0.167	J-EMPC J (Z)	0.117	J-EMPC J (Z)
1613B	57653-85-7	1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	ng/kg	0.46	J (Z)	0.0901	J (Z)	0.0704	J-EMPC J (Z)	1.05	J (Z)	0.462	J (Z)	0.391	J (Z)
1613B	60851-34-5	2,3,4,6,7,8-HXCDF	ng/kg	0.206	J (Z)	5.07	U (B)	4.98	U (B)	5.04	U (B)	0.167	J-EMPC J (Z)	5.01	U (B)
1613B	67562-39-4	1,2,3,4,6,7,8-HPCDF	ng/kg	1.69	J (Z)	5.07	U (B)	0.247	J (Z)	0.599	J (Z)	1.37	J (Z)	0.909	J (Z)
1613B	70648-26-9	1,2,3,4,7,8-HXCDF	ng/kg	0.209	J (Z)	5.07	J-EMPC U (B)	4.98	U (B)	5.04	U (B)	5.09	U (B)	5.01	J-EMPC U (B)
1613B	72918-21-9	1,2,3,7,8,9-HXCDF	ng/kg	5.17	U (B)	5.07	J-EMPC U (B)	4.98	J-EMPC U (B)	0.0871	J (Z)	5.09	U (B)	5.01	J-EMPC U (B)

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			Sample Name	SL-532-SA7-SB-0.0-0.5		SL-532-SA7-SB-3.0-4.0		SL-533-SA7-SB-0.0-0.5		SL-533-SA7-SB-2.5-3.5		SL-534-SA7-SB-0.0-0.5		SL-534-SA7-SB-5.5-6.5	
			Sample Type	N		N		N		N		N		N	
			Sample Date	04/18/2013		06/03/2013		04/18/2013		06/03/2013		04/12/2013		04/15/2013	
			SDG	PH034		PH045		PH034		PH045		PH030		PH031	
			Start Depth	0		3		0		2.5		0		5.5	
			End Depth	0.5		4		0.5		3.5		0.5		6.5	
Analytic Method	CAS Number	Chemical Name	Unit												
1613B	1746-01-6	2,3,7,8-TCDD	ng/kg	0.991	U	0.0439	J-EMPC J (Z)	0.0326	J-EMPC J (Z)	1.03	U	1.03	J-EMPC U (B)	0.029	J (Z)
1613B	19408-74-3	1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	ng/kg	0.123	J (Z)	5.17	J-EMPC U (B)	0.298	J (Z)	5.16	J-EMPC U (B)	0.976	J (Z)	5.19	J-EMPC U (B)
1613B	3268-87-9	OCDD	ng/kg	21.3		17.5		66.2		1.4	J (Z)	198		7.49	J (Z)
1613B	35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	ng/kg	2.58	J (Z)	1.98	J (Z)	5.92		5.16	U (B)	15		0.643	J-EMPC J (Z)
1613B	39001-02-0	OCDF	ng/kg	0.858	J (Z)	10.3	U (B)	2.02	J (Z)	10.3	U (B)	5.52	J (Z)	10.4	J-EMPC U (B)
1613B	39227-28-6	1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	ng/kg	0.0857	J-EMPC J (Z)	0.0946	J-EMPC J (Z)	0.128	J (Z)	0.0529	J (Z)	0.336	J (Z)	5.19	J-EMPC U (B)
1613B	40321-76-4	1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	ng/kg	4.95	J-EMPC U (B)	5.17	U (B)	5.19	U (B)	5.16	J-EMPC U (B)	0.344	J (Z)	5.19	J-EMPC U (B)
1613B	51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	ng/kg	0.0663	J-EMPC J (Z)	0.0561	J-EMPC J (Z)	0.0789	J-EMPC J (Z)	1.03	U	0.0508	J-EMPC J (Z)	1.04	U
1613B	55673-89-7	1,2,3,4,7,8,9-HPCDF	ng/kg	4.95	U (B)	5.17	J-EMPC U (B)	0.122	J-EMPC J (Z)	5.16	J-EMPC U (B)	0.289	J (Z)	5.19	J-EMPC U (B)
1613B	57117-31-4	2,3,4,7,8-PECDF	ng/kg	0.172	J (Z)	0.208	J (Z)	0.224	J (Z)	5.16	J-EMPC U (B)	0.156	J-EMPC J (Z)	5.19	J-EMPC U (B)
1613B	57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	ng/kg	4.95	U (B)	5.17	U (B)	5.19	J-EMPC U (B)	5.16	U (B)	5.15	J-EMPC U (B)	5.19	J-EMPC U (B)
1613B	57117-44-9	1,2,3,6,7,8-HXCDF	ng/kg	4.95	J-EMPC U (B)	5.17	J-EMPC U (B)	5.19	J-EMPC U (B)	5.16	J-EMPC U (B)	0.204	J-EMPC J (Z)	5.19	J-EMPC U (B)
1613B	57653-85-7	1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	ng/kg	0.134	J (Z)	5.17	U (B)	0.344	J (Z)	5.16	J-EMPC U (B)	0.701	J (Z)	5.19	J-EMPC U (B)
1613B	60851-34-5	2,3,4,6,7,8-HXCDF	ng/kg	4.95	J-EMPC U (B)	5.17	J-EMPC U (B)	5.19	U (B)	5.16	J-EMPC U (B)	0.349	J-EMPC J (Z)	5.19	J-EMPC U (B)
1613B	67562-39-4	1,2,3,4,6,7,8-HPCDF	ng/kg	0.513	J (Z)	0.304	J (Z)	0.909	J (Z)	5.16	U (B)	2.74	J (Z)	5.19	U (B)
1613B	70648-26-9	1,2,3,4,7,8-HXCDF	ng/kg	4.95	J-EMPC U (B)	5.17	J-EMPC U (B)	5.19	U (B)	5.16	U	0.253	J (Z)	5.19	J-EMPC U (B)
1613B	72918-21-9	1,2,3,7,8,9-HXCDF	ng/kg	4.95	J-EMPC U (B)	5.17	U	5.19	J-EMPC U (B)	5.16	J-EMPC U (B)	5.15	J-EMPC U (B)	5.19	J-EMPC U (B)

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		Sample Name		SL-535-SA7-SB-0.0-0.5		SL-535-SA7-SB-4.0-5.0		SL-535-SA7-SB-9.0-10.0		SL-536-SA7-SB-0.0-0.5		SL-536-SA7-SB-3.0-4.0		SL-836-SA7-SB-3.0-4.0	
		Sample Type		N		N		N		N		N		FD	
		Sample Date		04/12/2013		04/12/2013		04/12/2013		04/11/2013		04/12/2013		04/12/2013	
		SDG		PH030		PH030		PH030		PH029		PH030		PH030	
		Start Depth		0		4		9		0		3		3	
		End Depth		0.5		5		10		0.5		4		4	
Analytic Method	CAS Number	Chemical Name	Unit												
1613B	1746-01-6	2,3,7,8-TCDD	ng/kg	1.02	U (B)	1.04	U	1.04	J-EMPC U (B)	0.994	U (B)	1	UJ (FD)	1.03	J-EMPC UJ (B, FD)
1613B	19408-74-3	1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	ng/kg	1.51	J (Z)	0.108	J (Z)	5.18	U	2.74	J (Z)	0.575	J (FD, Z)	1.41	J (FD, Z)
1613B	3268-87-9	OCDD	ng/kg	299		14.6		1.74	J (Z)	722		150	J (FD, Q)	358	J (FD)
1613B	35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	ng/kg	33.4		1.55	J (Z)	5.18	U (B)	78.1		18.2	J (FD, Q)	38.9	J (FD)
1613B	39001-02-0	OCDF	ng/kg	7.05	J (Z)	0.47	J (Z)	10.4	J-EMPC U (B)	19.2		3.87	J (FD, Z)	9.39	J (FD, Z)
1613B	39227-28-6	1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	ng/kg	0.853	J (Z)	5.19	U (B)	5.18	J-EMPC U (B)	1.3	J (Z)	0.287	J (FD, Z)	0.724	J (FD, Z)
1613B	40321-76-4	1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	ng/kg	0.576	J-EMPC J (Z)	0.075	J-EMPC J (Z)	0.0562	J-EMPC J (Z)	0.799	J (Z)	0.238	J-EMPC J (Z)	0.38	J (Z)
1613B	51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	ng/kg	0.197	J-EMPC J (Z)	0.0363	J-EMPC J (Z)	1.04	U	0.0619	J (Z)	1	UJ (FD)	0.0308	J-EMPC J (FD, Z)
1613B	55673-89-7	1,2,3,4,7,8,9-HPCDF	ng/kg	0.319	J (Z)	5.19	J-EMPC U (B)	5.18	J-EMPC U (B)	0.861	J (Z)	5.02	J-EMPC UJ (B, FD)	0.529	J (FD, Z)
1613B	57117-31-4	2,3,4,7,8-PECDF	ng/kg	0.38	J (Z)	5.19	U (B)	5.18	U (B)	0.195	J (Z)	5.02	J-EMPC UJ (B, FD)	0.231	J (FD, Z)
1613B	57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	ng/kg	0.421	J (Z)	5.19	J-EMPC U (B)	5.18	J-EMPC U (B)	4.97	J-EMPC U (B)	5.02	UJ (B, FD)	5.13	J-EMPC UJ (B, FD)
1613B	57117-44-9	1,2,3,6,7,8-HXCDF	ng/kg	0.323	J-EMPC J (Z)	5.19	U (B)	5.18	J-EMPC U (B)	0.489	J (Z)	5.02	UJ (B, FD)	0.396	J (FD, Z)
1613B	57653-85-7	1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	ng/kg	1.87	J (Z)	0.11	J (Z)	5.18	J-EMPC U (B)	3.42	J (Z)	0.778	J (FD, Z)	1.87	J (FD, Z)
1613B	60851-34-5	2,3,4,6,7,8-HXCDF	ng/kg	0.359	J (Z)	5.19	U (B)	5.18	J-EMPC U (B)	0.695	J (Z)	0.189	J-EMPC J (FD, Z)	0.439	J (FD, Z)
1613B	67562-39-4	1,2,3,4,6,7,8-HPCDF	ng/kg	3.82	J (Z)	5.19	U (B)	5.18	J-EMPC U (B)	9.84		2.14	J (FD, Z)	5.29	J (FD)
1613B	70648-26-9	1,2,3,4,7,8-HXCDF	ng/kg	0.329	J (Z)	5.19	U (B)	5.18	J-EMPC U (B)	0.465	J (Z)	5.02	UJ (B, FD)	0.302	J (FD, Z)
1613B	72918-21-9	1,2,3,7,8,9-HXCDF	ng/kg	5.1	J-EMPC U (B)	5.19	J-EMPC U (B)	5.18	J-EMPC U (B)	4.97	U (B)	5.02	J-EMPC UJ (B, FD)	5.13	UJ (B, FD)

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			Sample Name	SL-537-SA7-SB-0.0-0.5		SL-538-SA7-SB-0.0-0.5		SL-539-SA7-SB-0.0-0.5		SL-540-SA7-SB-0.0-0.5		SL-840-SA7-SB-0.0-0.5		SL-541-SA7-SB-0.0-0.5	
			Sample Type	N		N		N		N		FD		N	
			Sample Date	04/15/2013		04/15/2013		04/08/2013		04/09/2013		04/09/2013		10/02/2013	
			SDG	PH031		PH031		PH027		PH027		PH027		PH121	
			Start Depth	0		0		0		0		0		0	
			End Depth	0.5		0.5		0.5		0.5		0.5		0.5	
Analytic Method	CAS Number	Chemical Name	Unit												
1613B	1746-01-6	2,3,7,8-TCDD	ng/kg	0.0372	J-EMPC J (Z)	0.0426	J (Z)	0.0932	J (Z)	1.02	U	0.98	U	1.06	U
1613B	19408-74-3	1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	ng/kg	0.814	J (Z)	1.2	J (Z)	2.77	J (Z)	0.339	J (Z)	0.443	J (Z)	0.121	J-EMPC J (Z)
1613B	3268-87-9	OCDD	ng/kg	193		490		1740		86.5	J (FD)	161	J (FD)	56.2	
1613B	35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	ng/kg	22.5		42.8		158		8.49		12.7		5.48	
1613B	39001-02-0	OCDF	ng/kg	7.37	J (Z)	13.2		50.9		3.16	J (Z)	4.4	J (Z)	1.3	J-EMPC J (Z)
1613B	39227-28-6	1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	ng/kg	0.34	J-EMPC J (Z)	0.533	J (Z)	1.72	J (Z)	0.15	J (Z)	0.197	J (Z)	5.29	U
1613B	40321-76-4	1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	ng/kg	0.288	J (Z)	0.319	J-EMPC J (Z)	0.615	J-EMPC J (Z)	5.12	J-EMPC U (B)	4.9	U (B)	5.29	U
1613B	51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	ng/kg	0.0992	J (Z)	0.116	J (Z)	0.73	J (Z)	1.02	U	0.98	U	1.06	U
1613B	55673-89-7	1,2,3,4,7,8,9-HPCDF	ng/kg	5.09	J-EMPC U (B)	0.416	J (Z)	2.65	J (Z)	5.12	J-EMPC U (B)	0.239	J (Z)	0.115	J-EMPC J (Z)
1613B	57117-31-4	2,3,4,7,8-PECDF	ng/kg	5.09	J-EMPC U (B)	4.85	U (B)	0.783	J (Z)	5.12	J-EMPC U (B)	4.9	U (B)	5.29	U
1613B	57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	ng/kg	5.09	U (B)	0.281	J (Z)	3.51	J (Z)	5.12	U (B)	4.9	J-EMPC U (B)	5.29	U
1613B	57117-44-9	1,2,3,6,7,8-HXCDF	ng/kg	0.167	J (Z)	0.254	J (Z)	1.24	J (Z)	5.12	J-EMPC U (B)	4.9	J-EMPC U (B)	5.29	J-EMPC U (B)
1613B	57653-85-7	1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	ng/kg	0.969	J (Z)	1.59	J (Z)	4.86	J (Z)	0.361	J-EMPC J (FD, Z)	0.661	J (FD, Z)	0.15	J (Z)
1613B	60851-34-5	2,3,4,6,7,8-HXCDF	ng/kg	5.09	U (B)	0.302	J (Z)	1.28	J (Z)	5.12	U (B)	0.187	J (Z)	0.103	J-EMPC J (Z)
1613B	67562-39-4	1,2,3,4,6,7,8-HPCDF	ng/kg	2.91	J (Z)	5.37		26.5		1.52	J (Z)	2.35	J (Z)	0.747	J (Z)
1613B	70648-26-9	1,2,3,4,7,8-HXCDF	ng/kg	5.09	U (B)	0.27	J-EMPC J (Z)	2	J (Z)	0.15	J-EMPC J (Z)	0.196	J (Z)	0.117	J-EMPC J (Z)
1613B	72918-21-9	1,2,3,7,8,9-HXCDF	ng/kg	5.09	J-EMPC U (B)	4.85	J-EMPC U (B)	0.745	J (Z)	0.0774	J-EMPC J (FD, Z)	0.204	J (FD, Z)	5.29	U

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			Sample Name	SL-541-SA7-SB-2.0-3.0		SL-542-SA7-SB-0.0-0.5		SL-544-SA7-SB-0.0-0.5		SL-546-SA7-SB-0.0-0.5		SL-547-SA7-SB-0.0-0.5		SL-548-SA7-SB-0.0-0.5	
			Sample Type	N		N		N		N		N		N	
			Sample Date	10/02/2013		04/09/2013		04/09/2013		04/09/2013		04/09/2013		04/10/2013	
			SDG	PH121		PH027		PH027		PH027		PH028		PH028	
			Start Depth	2		0		0		0		0		0	
			End Depth	3		0.5		0.5		0.5		0.5		0.5	
Analytic Method	CAS Number	Chemical Name	Unit												
1613B	1746-01-6	2,3,7,8-TCDD	ng/kg	1.02	U	0.0325	J-EMPC J (Z)	0.0275	J-EMPC J (Z)	0.149	J (Z)	0.105	J-EMPC J (Z)	0.0614	J-EMPC J (Z)
1613B	19408-74-3	1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	ng/kg	5.12	U	0.602	J (Z)	5.09	J-EMPC U (B)	3.26	J (Z)	0.687	J (Z)	2.1	J-EMPC J (Z)
1613B	3268-87-9	OCDD	ng/kg	4.27	J (Z)	349		30.1		1700		128		716	
1613B	35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	ng/kg	0.397	J (Z)	35.7		3.09	J (Z)	161		13		76.3	
1613B	39001-02-0	OCDF	ng/kg	10.2	J-EMPC U (B)	13		0.856	J (Z)	37.7		3.66	J (Z)	20.5	
1613B	39227-28-6	1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	ng/kg	5.12	U	0.365	J (Z)	5.09	J-EMPC U (B)	1.8	J (Z)	0.315	J (Z)	1.02	J-EMPC J (Z)
1613B	40321-76-4	1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	ng/kg	0.115	J-EMPC J (Z)	4.92	J-EMPC U (B)	5.09	U (B)	0.952	J-EMPC J (Z)	0.263	J-EMPC J (Z)	0.596	J (Z)
1613B	51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	ng/kg	1.02	U	0.984	U	1.02	U	0.801	J (Z)	0.183	J (Z)	0.994	U
1613B	55673-89-7	1,2,3,4,7,8,9-HPCDF	ng/kg	5.12	U	0.401	J (Z)	5.09	U (B)	1.68	J (Z)	0.435	J (Z)	1.05	J (Z)
1613B	57117-31-4	2,3,4,7,8-PECDF	ng/kg	5.12	U	0.18	J-EMPC J (Z)	5.09	J-EMPC U (B)	1.56	J (Z)	0.485	J (Z)	4.97	J-EMPC U (B)
1613B	57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	ng/kg	5.12	J-EMPC U (B)	4.92	J-EMPC U (B)	5.09	J-EMPC U (B)	0.704	J (Z)	0.365	J-EMPC J (Z)	0.235	J-EMPC J (Z)
1613B	57117-44-9	1,2,3,6,7,8-HXCDF	ng/kg	5.12	U	0.347	J (Z)	5.09	U (B)	1.03	J (Z)	0.512	J (Z)	0.595	J-EMPC J (Z)
1613B	57653-85-7	1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	ng/kg	5.12	U	0.986	J (Z)	0.164	J (Z)	5.44		1.35	J (Z)	3.24	J (Z)
1613B	60851-34-5	2,3,4,6,7,8-HXCDF	ng/kg	5.12	U	0.388	J (Z)	5.09	J-EMPC U (B)	1.27	J (Z)	0.445	J (Z)	0.909	J-EMPC J (Z)
1613B	67562-39-4	1,2,3,4,6,7,8-HPCDF	ng/kg	5.12	J-EMPC U (B)	6.37		0.518	J (Z)	19.2		1.81	J (Z)	10.2	
1613B	70648-26-9	1,2,3,4,7,8-HXCDF	ng/kg	5.12	U	0.27	J (Z)	5.09	U (B)	1.62	J (Z)	0.321	J (Z)	0.516	J (Z)
1613B	72918-21-9	1,2,3,7,8,9-HXCDF	ng/kg	0.0426	J-EMPC J (Z)	0.0737	J-EMPC J (Z)	0.0801	J-EMPC J (Z)	0.605	J (Z)	5.11	U (B)	4.97	U

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			Sample Name	SL-549-SA7-SB-0.0-0.5		SL-551-SA7-SB-0.0-0.5		SL-551-SA7-SB-2.0-3.0		SL-552-SA7-SB-0.0-0.5		SL-553-SA7-SB-0.0-0.5		SL-554-SA7-SB-0.0-0.5	
			Sample Type	N		N		N		N		N		N	
			Sample Date	04/10/2013		04/10/2013		04/10/2013		04/10/2013		04/11/2013		04/11/2013	
			SDG	PH028		PH028		PH028		PH028		PH029		PH029	
			Start Depth	0		0		2		0		0		0	
			End Depth	0.5		0.5		3		0.5		0.5		0.5	
Analytic Method	CAS Number	Chemical Name	Unit												
1613B	1746-01-6	2,3,7,8-TCDD	ng/kg	0.984	U	0.0747	J-EMPC J (Z)	1.01	U	0.991	U	1	J-EMPC U (B)	1.03	U (B)
1613B	19408-74-3	1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	ng/kg	0.492	J (Z)	0.704	J (Z)	0.36	J (Z)	0.787	J (Z)	0.368	J (Z)	1.41	J (Z)
1613B	3268-87-9	OCDD	ng/kg	70.7		327		169		228		73.4		455	
1613B	35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	ng/kg	11.1		30.9		13		21.7		6.94		36.8	
1613B	39001-02-0	OCDF	ng/kg	2.07	J (Z)	8.5	J (Z)	5.49	J (Z)	6.59	J (Z)	2.38	J (Z)	12.8	
1613B	39227-28-6	1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	ng/kg	0.231	J (Z)	0.417	J (Z)	0.161	J-EMPC J (Z)	0.372	J-EMPC J (Z)	5.02	U (B)	0.627	J (Z)
1613B	40321-76-4	1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	ng/kg	4.92	U (B)	5.14	J-EMPC U (B)	5.03	J-EMPC U (B)	4.96	J-EMPC U (B)	0.0481	J-EMPC J (Z)	0.441	J (Z)
1613B	51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	ng/kg	0.109	J (Z)	0.153	J-EMPC J (Z)	0.0596	J-EMPC J (Z)	0.991	U	0.0333	J-EMPC J (Z)	0.389	J (Z)
1613B	55673-89-7	1,2,3,4,7,8,9-HPCDF	ng/kg	4.92	J-EMPC U (B)	0.574	J (Z)	5.03	U (B)	0.405	J (Z)	5.02	U (B)	0.599	J (Z)
1613B	57117-31-4	2,3,4,7,8-PECDF	ng/kg	4.92	J-EMPC U (B)	5.14	U (B)	5.03	J-EMPC U (B)	4.96	U (B)	5.02	U (B)	0.865	J (Z)
1613B	57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	ng/kg	0.355	J (Z)	5.14	U (B)	5.03	J-EMPC U (B)	4.96	U (B)	5.02	U (B)	0.294	J (Z)
1613B	57117-44-9	1,2,3,6,7,8-HXCDF	ng/kg	0.168	J (Z)	0.276	J (Z)	0.182	J (Z)	0.262	J (Z)	5.02	U (B)	0.356	J (Z)
1613B	57653-85-7	1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	ng/kg	0.597	J (Z)	1.12	J-EMPC J (Z)	0.472	J (Z)	0.86	J (Z)	0.399	J (Z)	1.6	J (Z)
1613B	60851-34-5	2,3,4,6,7,8-HXCDF	ng/kg	4.92	J-EMPC U (B)	0.401	J (Z)	0.238	J (Z)	0.344	J (Z)	0.122	J-EMPC J (Z)	0.44	J-EMPC J (Z)
1613B	67562-39-4	1,2,3,4,6,7,8-HPCDF	ng/kg	1.08	J (Z)	3.99	J (Z)	2.24	J (Z)	3.39	J (Z)	1.12	J (Z)	5.79	
1613B	70648-26-9	1,2,3,4,7,8-HXCDF	ng/kg	4.92	J-EMPC U (B)	0.3	J (Z)	5.03	U (B)	4.96	U (B)	5.02	U (B)	0.505	J (Z)
1613B	72918-21-9	1,2,3,7,8,9-HXCDF	ng/kg	4.92	U	5.14	J-EMPC U (B)	5.03	J-EMPC U (B)	4.96	U	5.02	U (B)	0.293	J (Z)

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			Sample Name	SL-555-SA7-SB-0.0-0.5		SL-557-SA7-SB-0.0-0.5		SL-558-SA7-SB-0.0-0.5		SL-558-SA7-SB-3.0-4.0		SL-559-SA7-SB-0.0-0.5		SL-559-SA7-SB-2.0-3.0	
			Sample Type	N		N		N		N		N		N	
			Sample Date	04/11/2013		04/17/2013		04/16/2013		04/17/2013		04/16/2013		04/16/2013	
			SDG	PH029		PH033		PH032		PH033		PH032		PH032	
			Start Depth	0		0		0		3		0		2	
			End Depth	0.5		0.5		0.5		4		0.5		3	
Analytic Method	CAS Number	Chemical Name	Unit												
1613B	1746-01-6	2,3,7,8-TCDD	ng/kg	1.06	J-EMPC U (B)	1.04	U	0.148	J (Z)	1.03	U	1.02	U	1.04	U
1613B	19408-74-3	1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	ng/kg	1.2	J-EMPC J (Z)	5.18	U (B)	13.7		1.15	J (Z)	2.68	J (Z)	1.07	J-EMPC J (Z)
1613B	3268-87-9	OCDD	ng/kg	296		25		5670	J (*#)	505		871		368	
1613B	35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	ng/kg	28.5		3.42	J (Z)	726		64.4		105		40.5	
1613B	39001-02-0	OCDF	ng/kg	9.21	J (Z)	1.34	J (Z)	145		10.8		47.2		18.4	
1613B	39227-28-6	1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	ng/kg	0.475	J (Z)	5.18	U	5.16		0.4	J (Z)	1.34	J (Z)	0.462	J (Z)
1613B	40321-76-4	1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	ng/kg	0.383	J-EMPC J (Z)	5.18	U (B)	1.96	J (Z)	5.14	U (B)	0.713	J (Z)	0.255	J-EMPC J (Z)
1613B	51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	ng/kg	0.395	J (Z)	0.0749	J (Z)	0.138	J (Z)	1.03	U	0.318	J (Z)	0.0699	J-EMPC J (Z)
1613B	55673-89-7	1,2,3,4,7,8,9-HPCDF	ng/kg	0.36	J (Z)	5.18	U (B)	7.49		0.438	J (Z)	1.13	J-EMPC J (Z)	0.479	J (Z)
1613B	57117-31-4	2,3,4,7,8-PECDF	ng/kg	0.849	J (Z)	5.18	U (B)	0.317	J-EMPC J (Z)	5.14	J-EMPC U (B)	0.869	J (Z)	0.452	J (Z)
1613B	57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	ng/kg	0.427	J-EMPC J (Z)	5.18	U (B)	0.32	J (Z)	5.14	J-EMPC U (B)	1.09	J-EMPC J (Z)	1.08	J (Z)
1613B	57117-44-9	1,2,3,6,7,8-HXCDF	ng/kg	0.388	J (Z)	5.18	U (B)	1.93	J (Z)	5.14	U (B)	0.689	J (Z)	0.368	J-EMPC J (Z)
1613B	57653-85-7	1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	ng/kg	1.35	J (Z)	0.167	J (Z)	31.5		2.48	J (Z)	3.9	J (Z)	1.49	J (Z)
1613B	60851-34-5	2,3,4,6,7,8-HXCDF	ng/kg	0.433	J (Z)	0.0959	J-EMPC J (Z)	3.03	J (Z)	0.168	J (Z)	0.818	J (Z)	0.361	J (Z)
1613B	67562-39-4	1,2,3,4,6,7,8-HPCDF	ng/kg	4.16	J (Z)	0.576	J (Z)	59.2		3.96	J (Z)	16.1		5.91	
1613B	70648-26-9	1,2,3,4,7,8-HXCDF	ng/kg	0.375	J (Z)	5.18	U (B)	2.04	J (Z)	5.14	J-EMPC U (B)	0.794	J (Z)	0.399	J (Z)
1613B	72918-21-9	1,2,3,7,8,9-HXCDF	ng/kg	0.4	J (Z)	5.18	U (B)	5.02	U	5.14	U (B)	0.351	J (Z)	5.18	U (B)

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			Sample Name	SL-560-SA7-SB-0.0-0.5		SL-560-SA7-SB-3.0-4.0		SL-561-SA7-SB-0.0-0.5		SL-562-SA7-SB-0.0-0.5		SL-562-SA7-SB-2.0-3.0	
			Sample Type	N		N		N		N		N	
			Sample Date	04/16/2013		04/16/2013		04/16/2013		04/26/2013		04/26/2013	
			SDG	PH032		PH032		PH032		PH040		PH040	
			Start Depth	0		3		0		0		2	
			End Depth	0.5		4		0.5		0.5		3	
Analytic Method	CAS Number	Chemical Name	Unit										
1613B	1746-01-6	2,3,7,8-TCDD	ng/kg	0.105	J (Z)	0.0801	J-EMPC J (Z)	1.04	U	0.14	J-EMPC J (Z)	0.116	J (Z)
1613B	19408-74-3	1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	ng/kg	4.01	J (Z)	0.262	J-EMPC J (Z)	1.82	J (Z)	2.84	J (Z)	3.27	J (Z)
1613B	3268-87-9	OCDD	ng/kg	2180		10.7	J (Z)	1140		1540		2660	
1613B	35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	ng/kg	213		1.26	J-EMPC J (Z)	110		121		215	
1613B	39001-02-0	OCDF	ng/kg	57.9		11.2	J-EMPC U (B)	27.3		15.1		47	
1613B	39227-28-6	1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	ng/kg	1.65	J (Z)	0.0961	J (Z)	0.897	J (Z)	1.56	J (Z)	1.54	J (Z)
1613B	40321-76-4	1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	ng/kg	0.937	J (Z)	0.235	J-EMPC J (Z)	0.448	J (Z)	0.74	J (Z)	0.735	J (Z)
1613B	51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	ng/kg	0.191	J-EMPC J (Z)	0.0392	J-EMPC J (Z)	0.507	J (Z)	0.192	J-EMPC J (Z)	0.83	J (Z)
1613B	55673-89-7	1,2,3,4,7,8,9-HPCDF	ng/kg	2.05	J-EMPC J (Z)	5.58	U (B)	2.07	J (Z)	0.57	J (Z)	1.64	J (Z)
1613B	57117-31-4	2,3,4,7,8-PECDF	ng/kg	0.45	J (Z)	5.58	J-EMPC U (B)	1.08	J (Z)	0.677	J (Z)	1.79	J (Z)
1613B	57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	ng/kg	0.495	J (Z)	0.309	J (Z)	0.86	J (Z)	0.557	J (Z)	0.995	J (Z)
1613B	57117-44-9	1,2,3,6,7,8-HXCDF	ng/kg	0.83	J (Z)	5.58	U (B)	1.49	J (Z)	0.584	J (Z)	1.49	J (Z)
1613B	57653-85-7	1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	ng/kg	7.63		0.205	J-EMPC J (Z)	4	J (Z)	4.5	J (Z)	7.59	
1613B	60851-34-5	2,3,4,6,7,8-HXCDF	ng/kg	1.2	J (Z)	5.58	U (B)	1.59	J (Z)	0.56	J (Z)	1.52	J (Z)
1613B	67562-39-4	1,2,3,4,6,7,8-HPCDF	ng/kg	23		5.58	U (B)	16.3		10.4		27.1	
1613B	70648-26-9	1,2,3,4,7,8-HXCDF	ng/kg	0.856	J (Z)	5.58	U (B)	1.83	J (Z)	0.813	J (Z)	1.77	J (Z)
1613B	72918-21-9	1,2,3,7,8,9-HXCDF	ng/kg	0.355	J (Z)	0.439	J-EMPC J (Z)	1.07	J (Z)	5.09	U	0.745	J (Z)

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

			Sample Name	SL-540-SA7-SB-0.0-0.5	SL-840-SA7-SB-0.0-0.5
			Sample Type	N	FD
			Sample Date	04/09/2013	04/09/2013
			SDG	PH027	PH027
			Start Depth	0	0
			End Depth	0.5	0.5
Analytic Method	CAS Number	Chemical Name	Unit		
8315A	50-00-0	Formaldehyde	µg/kg	2100 U	2100 U

U-Compound not detected above reporting limit
J-Result is an estimated value
R-Result is rejected if R qualifier is in first position. If R qualifier is after another qualifier, result is not rejected but qualified as estimated during validation

			Sample Name	SL-540-SA7-SB-0.0-0.5	SL-840-SA7-SB-0.0-0.5
			Sample Type	N	FD
			Sample Date	04/09/2013	04/09/2013
			SDG	PH027	PH027
			Start Depth	0	0
			End Depth	0.5	0.5
Analytic Method	CAS Number	Chemical Name	Unit		
7199	18540-29-9	Chromium (Hexavalent Compounds)	mg/kg	0.37 J Z	0.26 J Z

U-Compound not detected above reporting limit
J-Result is an estimated value
R-Result is rejected if R qualifier is in first position. If R qualifier is after another qualifier, result is not rejected but qualified as estimated during validation

			Sample Name	SL-500-SA7-SB-0.0-0.5	SL-501-SA7-SB-0.0-0.5	SL-502-SA7-SB-0.0-0.5	SL-503-SA7-SB-0.0-0.5	SL-504-SA7-SB-0.0-0.5	SL-504-SA7-SB-4.0-5.0	SL-505-SA7-SB-0.0-0.5	SL-506-SA7-SB-0.0-0.5	SL-507-SA7-SB-0.0-0.5
			Sample Type	N	N	N	N	N	N	N	N	N
			Sample Date	04/17/2013	04/17/2013	04/17/2013	04/22/2013	04/22/2013	04/22/2013	04/17/2013	04/25/2013	04/24/2013
			SDG	PH033	PH033	PH033	PH036	PH036	PH036	PH033	PH039	PH039
			Start Depth	0	0	0	0	0	4	0	0	0
			End Depth	0.5	0.5	0.5	0.5	0.5	5	0.5	0.5	0.5
Analytic Method	CAS Number	Chemical Name	Unit									
7471B	7439-97-6	Mercury	mg/kg	0.0178 J Z	0.0226	0.0196 J Z	0.0293	0.0197	0.0170 J Z	0.0226	0.0175	0.03

U-Compound not detected above reporting limit
J-Result is an estimated value
R-Result is rejected if R qualifier is in first position. If R qualifier is after another qualifier, result is not rejected but qualified as estimated during validation

			Sample Name	SL-508-SA7-SB-0.0-0.5	SL-509-SA7-SB-0.0-0.5	SL-510-SA7-SB-0.0-0.5	SL-810-SA7-SB-0.0-0.5	SL-511-SA7-SB-0.0-0.5	SL-512-SA7-SB-0.0-0.5	SL-513-SA7-SB-0.0-0.5	SL-913-SA7-SB-0.0-0.5	SL-514-SA7-SB-0.0-0.5
			Sample Type	N	N	N	FD	N	N	N	FD	N
			Sample Date	04/25/2013	04/25/2013	04/22/2013	04/22/2013	04/19/2013	04/23/2013	06/04/2013	06/04/2013	06/06/2013
			SDG	PH039	PH039	PH036	PH036	PH035	PH037	PH046	PH046	PH049
			Start Depth	0	0	0	0	0	0	0	0	0
			End Depth	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Analytic Method	CAS Number	Chemical Name	Unit									
7471B	7439-97-6	Mercury	mg/kg	0.414	0.09	0.0167	0.0219	0.0453	0.0133 J Z	0.0151 J FD, Z	0.0267 J FD	0.0264

U-Compound not detected above reporting limit
J-Result is an estimated value
R-Result is rejected if R qualifier is in first position. If R qualifier is after another qualifier, result is not rejected but qualified as estimated during validation

			Sample Name	SL-515-SA7-SB-0.0-0.5	SL-516-SA7-SB-0.0-0.5	SL-517-SA7-SB-0.0-0.5	SL-518-SA7-SB-0.0-0.5	SL-519-SA7-SB-0.0-0.5	SL-819-SA7-SB-0.0-0.5	SL-519-SA7-SB-2.0-3.0	SL-520-SA7-SB-0.0-0.5	SL-521-SA7-SB-0.0-0.5
			Sample Type	N	N	N	N	N	FD	N	N	N
			Sample Date	06/06/2013	06/04/2013	04/22/2013	04/19/2013	04/25/2013	04/25/2013	04/25/2013	04/19/2013	04/15/2013
			SDG	PH049	PH046	PH036	PH035	PH039	PH039	PH039	PH035	PH031
			Start Depth	0	0	0	0	0	0	2	0	0
			End Depth	0.5	0.5	0.5	0.5	0.5	0.5	3	0.5	0.5
Analytic Method	CAS Number	Chemical Name	Unit									
7471B	7439-97-6	Mercury	mg/kg	0.0112 J Z	0.0108 J Z	0.123	0.198	0.0581	0.0492	0.0254	0.0237	0.0176 J Z

U-Compound not detected above reporting limit
J-Result is an estimated value
R-Result is rejected if R qualifier is in first position. If R qualifier is after another qualifier, result is not rejected but qualified as estimated during validation

			Sample Name	SL-522-SA7-SB-0.0-0.5	SL-524-SA7-SB-0.0-0.5	SL-524-SA7-SB-1.0-2.0	SL-924-SA7-SB-1.0-2.0	SL-525-SA7-SB-0.0-0.5	SL-525-SA7-SB-4.0-5.0	SL-525-SA7-SB-6.5-7.5	SL-525-SA7-SB-9.5-10.5	SL-526-SA7-SB-0.0-0.5
			Sample Type	N	N	N	FD	N	N	N	N	N
			Sample Date	04/15/2013	06/04/2013	06/04/2013	06/04/2013	04/23/2013	06/03/2013	04/24/2013	06/03/2013	04/23/2013
			SDG	PH031	PH046	PH046	PH046	PH037	PH045	PH038	PH045	PH037
			Start Depth	0	0	1	1	0	4	6.5	9.5	0
			End Depth	0.5	0.5	2	2	0.5	5	7.5	10.5	0.5
Analytic Method	CAS Number	Chemical Name	Unit									
7471B	7439-97-6	Mercury	mg/kg	0.0217	0.0177 U	0.0178 U	0.0178 U	0.0311	0.0166 J Z	0.0155 J Z	0.0110 J Z	0.0165 J Z

U-Compound not detected above reporting limit
J-Result is an estimated value
R-Result is rejected if R qualifier is in first position. If R qualifier is after another qualifier, result is not rejected but qualified as estimated during validation

			Sample Name	SL-526-SA7-SB-3.5-4.5	SL-526-SA7-SB-9.0-10.0	SL-527-SA7-SB-0.0-0.5	SL-527-SA7-SB-2.5-3.5	SL-528-SA7-SB-0.0-0.5	SL-529-SA7-SB-0.0-0.5	SL-530-SA7-SB-0.0-0.5	SL-531-SA7-SB-0.0-0.5	SL-532-SA7-SB-0.0-0.5
			Sample Type	N	N	N	N	N	N	N	N	N
			Sample Date	04/23/2013	06/03/2013	04/24/2013	04/24/2013	04/24/2013	04/24/2013	04/18/2013	04/18/2013	04/18/2013
			SDG	PH037	PH045	PH038	PH038	PH038	PH038	PH034	PH034	PH034
			Start Depth	3.5	9	0	2.5	0	0	0	0	0
			End Depth	4.5	10	0.5	3.5	0.5	0.5	0.5	0.5	0.5
Analytic Method	CAS Number	Chemical Name	Unit									
7471B	7439-97-6	Mercury	mg/kg	0.0156 J Z	0.0176 U	0.0239	0.0167 U	0.0122 J Z	0.0141 J Z	0.0151 J Z	0.0171 J Z	0.0144 J Z

U-Compound not detected above reporting limit
J-Result is an estimated value
R-Result is rejected if R qualifier is in first position. If R qualifier is after another qualifier, result is not rejected but qualified as estimated during validation

			Sample Name	SL-532-SA7-SB-3.0-4.0	SL-533-SA7-SB-0.0-0.5	SL-533-SA7-SB-2.5-3.5	SL-534-SA7-SB-0.0-0.5	SL-534-SA7-SB-5.5-6.5	SL-535-SA7-SB-0.0-0.5	SL-535-SA7-SB-4.0-5.0	SL-535-SA7-SB-9.0-10.0	SL-536-SA7-SB-0.0-0.5
			Sample Type	N	N	N	N	N	N	N	N	N
			Sample Date	06/03/2013	04/18/2013	06/03/2013	04/12/2013	04/15/2013	04/12/2013	04/12/2013	04/12/2013	04/11/2013
			SDG	PH045	PH034	PH045	PH030	PH031	PH030	PH030	PH030	PH029
			Start Depth	3	0	2.5	0	5.5	0	4	9	0
			End Depth	4	0.5	3.5	0.5	6.5	0.5	5	10	0.5
Analytic Method	CAS Number	Chemical Name	Unit									
7471B	7439-97-6	Mercury	mg/kg	0.0206	0.0282	0.0168 U	0.0188 J Z	0.0125 J Z	0.0151 J Z	0.0108 J Z	0.0149 J Z	0.0113 J Z

U-Compound not detected above reporting limit
J-Result is an estimated value
R-Result is rejected if R qualifier is in first position. If R qualifier is after another qualifier, result is not rejected but qualified as estimated during validation

			Sample Name	SL-536-SA7-SB-3.0-4.0	SL-836-SA7-SB-3.0-4.0	SL-537-SA7-SB-0.0-0.5	SL-538-SA7-SB-0.0-0.5	SL-539-SA7-SB-0.0-0.5	SL-540-SA7-SB-0.0-0.5	SL-840-SA7-SB-0.0-0.5	SL-541-SA7-SB-0.0-0.5	SL-541-SA7-SB-2.0-3.0
			Sample Type	N	FD	N	N	N	N	FD	N	N
			Sample Date	04/12/2013	04/12/2013	04/15/2013	04/15/2013	04/08/2013	04/09/2013	04/09/2013	10/02/2013	10/02/2013
			SDG	PH030	PH030	PH031	PH031	PH027	PH027	PH027	PH121	PH121
			Start Depth	3	3	0	0	0	0	0	0	2
			End Depth	4	4	0.5	0.5	0.5	0.5	0.5	0.5	3
Analytic Method	CAS Number	Chemical Name	Unit									
7471B	7439-97-6	Mercury	mg/kg	0.0202 U	0.0200 U	0.0156 J Z	0.0152 J Z	0.0202 U	0.0201 U	0.0200 U	0.0194	0.0163 U

U-Compound not detected above reporting limit
J-Result is an estimated value
R-Result is rejected if R qualifier is in first position. If R qualifier is after another qualifier, result is not rejected but qualified as estimated during validation

			Sample Name	SL-542-SA7-SB-0.0-0.5	SL-544-SA7-SB-0.0-0.5	SL-547-SA7-SB-0.0-0.5	SL-548-SA7-SB-0.0-0.5	SL-549-SA7-SB-0.0-0.5	SL-551-SA7-SB-0.0-0.5	SL-551-SA7-SB-2.0-3.0	SL-552-SA7-SB-0.0-0.5	SL-553-SA7-SB-0.0-0.5
			Sample Type	N	N	N	N	N	N	N	N	N
			Sample Date	04/09/2013	04/09/2013	04/09/2013	04/10/2013	04/10/2013	04/10/2013	04/10/2013	04/10/2013	04/11/2013
			SDG	PH027	PH027	PH028	PH028	PH028	PH028	PH028	PH028	PH029
			Start Depth	0	0	0	0	0	0	2	0	0
			End Depth	0.5	0.5	0.5	0.5	0.5	0.5	3	0.5	0.5
Analytic Method	CAS Number	Chemical Name	Unit									
7471B	7439-97-6	Mercury	mg/kg	0.0203 U	0.0199 U	0.0203 U	0.0199 U	0.0203 U	0.0110 J Z	0.0203 U	0.0202 U	0.0192 U

U-Compound not detected above reporting limit
J-Result is an estimated value
R-Result is rejected if R qualifier is in first position. If R qualifier is after another qualifier, result is not rejected but qualified as estimated during validation

			Sample Name	SL-554-SA7-SB-0.0-0.5	SL-555-SA7-SB-0.0-0.5	SL-557-SA7-SB-0.0-0.5	SL-558-SA7-SB-0.0-0.5	SL-558-SA7-SB-3.0-4.0	SL-559-SA7-SB-0.0-0.5	SL-559-SA7-SB-2.0-3.0	SL-560-SA7-SB-0.0-0.5	SL-560-SA7-SB-3.0-4.0
			Sample Type	N	N	N	N	N	N	N	N	N
			Sample Date	04/11/2013	04/11/2013	04/17/2013	04/16/2013	04/17/2013	04/16/2013	04/16/2013	04/16/2013	04/16/2013
			SDG	PH029	PH029	PH033	PH032	PH033	PH032	PH032	PH032	PH032
			Start Depth	0	0	0	0	3	0	2	0	3
			End Depth	0.5	0.5	0.5	0.5	4	0.5	3	0.5	4
Analytic Method	CAS Number	Chemical Name	Unit									
7471B	7439-97-6	Mercury	mg/kg	0.0221	0.0178 J Z	0.0252	0.0181 J Z	0.0203 U	0.02	0.0172 J Z	0.0259	0.0183 J Z

U-Compound not detected above reporting limit
J-Result is an estimated value
R-Result is rejected if R qualifier is in first position. If R qualifier is after another qualifier, result is not rejected but qualified as estimated during validation

			Sample Name	SL-561-SA7-SB-0.0-0.5	SL-562-SA7-SB-0.0-0.5	SL-562-SA7-SB-2.0-3.0
			Sample Type	N	N	N
			Sample Date	04/16/2013	04/26/2013	04/26/2013
			SDG	PH032	PH040	PH040
			Start Depth	0	0	2
			End Depth	0.5	0.5	3
Analytic Method	CAS Number	Chemical Name	Unit			
7471B	7439-97-6	Mercury	mg/kg	0.0299	0.0118 J Z	0.0163 U

U-Compound not detected above reporting limit
J-Result is an estimated value
R-Result is rejected if R qualifier is in first position. If R qualifier is after another qualifier, result is not rejected but qualified as estimated during validation

			Sample Name	SL-500-SA7-SB-0.0-0.5	SL-501-SA7-SB-0.0-0.5	SL-502-SA7-SB-0.0-0.5	SL-503-SA7-SB-0.0-0.5	SL-504-SA7-SB-0.0-0.5	SL-504-SA7-SB-4.0-5.0	SL-505-SA7-SB-0.0-0.5	SL-506-SA7-SB-0.0-0.5	SL-507-SA7-SB-0.0-0.5
			Sample Type	N	N	N	N	N	N	N	N	N
			Sample Date	04/17/2013	04/17/2013	04/17/2013	04/22/2013	04/22/2013	04/22/2013	04/17/2013	04/25/2013	04/24/2013
			SDG	PH033	PH033	PH033	PH036	PH036	PH036	PH033	PH039	PH039
			Start Depth	0	0	0	0	0	4	0	0	0
			End Depth	0.5	0.5	0.5	0.5	0.5	5	0.5	0.5	0.5
Analytic Method	CAS Number	Chemical Name	Unit									
6010C	7429-90-5	Aluminum	mg/kg	12000	13900	18900	11100	12200	15700	12700	16000	11500
6010C	7439-89-6	Iron	mg/kg	17000	19800	26900	19100	25100	24800	24200	26000	19700
6010C	7439-92-1	Lead	mg/kg	11.0 J E, Q	10.1 J E, Q	21.7 J E, Q	23.7 J E, Q	11.3 J E, Q	7.48 J E, Q	11.3 J E, Q	8.97 J E, Q	9.87 J E, Q
6010C	7439-93-2	Lithium	mg/kg	21.9	23.6	32.7	21.1	26.6	26.4	25.1	31.8	22.4
6010C	7439-95-4	Magnesium	mg/kg	3440	3810	6200	4670	5290	4540	5400	7080	4470
6010C	7439-96-5	Manganese	mg/kg	260	313	368	310	287	265	301	371	278
6010C	7439-98-7	Molybdenum	mg/kg	1.99 U F	1.99 U F	2.05 U F	2.03 U F	1.98 U F	2.07 U F	2.06 U F	2.02 U F	2.01 U F
6010C	7440-02-0	Nickel	mg/kg	8.27	10.3	15.4	11.2	12.8	10.3	13.7	14.6	9.69
6010C	9/7/7440	Potassium	mg/kg	2330 J Q	3490 J Q	4190 J Q	3420 J Q	3580 J Q	3060 J Q	3990 J Q	4030 J Q	3260 J Q
6010C	7440-23-5	Sodium	mg/kg	118	84.1 J Z	87.1 J Z	101 U F	99.1 U F	104 U F	79.4 J Z	101 U F	101 U F
6010C	7440-31-5	Tin	mg/kg	9.93 U B	9.96 U B	10.2 U B	10.1 U B	9.91 U B	10.4 U B	10.3 U B	10.1 U B	10.1 U B
6010C	7440-32-6	Titanium	mg/kg	876	1080	1470	926	1200	1180	1180	1360	1030
6010C	7440-36-0	Antimony	mg/kg	3.97 UJ Q	3.99 UJ Q	0.580 J Q, Z	4.05 UJ Q	0.866 J Q, Z	0.826 J Q, Z	4.12 UJ Q	0.916 J Q, Z	4.03 UJ Q
6010C	7440-38-2	Arsenic	mg/kg	9.73	8.43	7.04	4.97	5.04	5.06	4.79	3.92 J Z	4.72
6010C	7440-39-3	Barium	mg/kg	74.2	100	114	103	86.9	82.5	74.6	105	68.2
6010C	7440-41-7	Beryllium	mg/kg	0.466 J Z	0.551 J Z	0.695 J Z	0.454 J Z	0.515 J Z	0.657 J Z	0.514 J Z	0.573 J Z	0.526 J Z
6010C	7440-42-8	Boron	mg/kg	9.93 U B	9.96 U B	10.2 U B	10.1 U B, F	9.91 U B, F	10.4 U B, F	10.3 U B	10.1 U F	10.1 U F
6010C	7440-43-9	Cadmium	mg/kg	0.165 J Z	0.239 J Z	0.204 J Z	0.462 J Z	0.239 J Z	0.0757 J Z	0.174 J Z	0.302 J Z	0.256 J Z
6010C	7440-47-3	Chromium	mg/kg	13.5	16.2	24.7	16.7	23.7	18.3	22.5	26.1	17.1
6010C	7440-48-4	Cobalt	mg/kg	3.87	4.47	6.47	4.89	5.25	4.82	5.7	6.43 J E	4.48 J E
6010C	7440-50-8	Copper	mg/kg	9.56	12.7	17.3	13.4	14.9	12.4	17.9	16.2	11.5
6010C	7440-62-2	Vanadium	mg/kg	27.3	30.9	49.8	32.2	47.8	35.4	40.9	50	32.7
6010C	7440-66-6	Zinc	mg/kg	87.9	88.1	89.4	71.9	115	62	111	61.3	54.3
6010C	7440-67-7	Zirconium	mg/kg	2.35 J Z	3.15 J Z	3.53 J Z	2.45 J Z	2.35 J Z	2.53 J Z	2.44 J Z	2.98 J Z	2.05 J Z
6010C	7440-70-2	Calcium	mg/kg	2430	2700	3700	7680	4370	2380	3380	3680 J E	3810 J E
6010C	7723-14-0	Phosphorus	mg/kg	298	390	447	561	495	339	532	504 J E	382 J E
6020A	7440-22-4	Silver	mg/kg	0.0356 J Z	0.0465 J Z	0.0651 J Z	0.0521 J Z	0.0222 J Z	0.0686 J Z	0.0450 J Z	0.0605 J Z	0.0213 J Z
6020A	7440-24-6	Strontium	mg/kg	17.2 J Q	20.7 J Q	22.3 J Q	37.0 J Q	15.8 J Q	16.3 J Q	14.0 J Q	21.7	22.4
6020A	7440-28-0	Thallium	mg/kg	0.189 J Z	0.237	0.338	0.22	0.241	0.231	0.214	0.329	0.286
6020A	7782-49-2	Selenium	mg/kg	0.397 U	0.399 U	0.162 J Z	0.131 J Z	0.397 U	0.415 U	0.138 J Z	0.187 J Z	0.159 J Z

U-Compound not detected above reporting limit
J-Result is an estimated value
R-Result is rejected if R qualifier is in first position. If R qualifier is after another qualifier, result is not rejected but qualified as estimated during validation

			Sample Name	SL-508-SA7-SB-0.0-0.5	SL-509-SA7-SB-0.0-0.5	SL-510-SA7-SB-0.0-0.5	SL-810-SA7-SB-0.0-0.5	SL-511-SA7-SB-0.0-0.5	SL-512-SA7-SB-0.0-0.5	SL-513-SA7-SB-0.0-0.5	SL-913-SA7-SB-0.0-0.5	SL-514-SA7-SB-0.0-0.5
			Sample Type	N	N	N	FD	N	N	N	FD	N
			Sample Date	04/25/2013	04/25/2013	04/22/2013	04/22/2013	04/19/2013	04/23/2013	06/04/2013	06/04/2013	06/06/2013
			SDG	PH039	PH039	PH036	PH036	PH035	PH037	PH046	PH046	PH049
			Start Depth	0	0	0	0	0	0	0	0	0
			End Depth	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Analytic Method	CAS Number	Chemical Name	Unit									
6010C	7429-90-5	Aluminum	mg/kg	10800	11800	13600	14600	12000	12900	9050	9640	13700
6010C	7439-89-6	Iron	mg/kg	27200	21700	22600	24100	21300	20000	16400	16700	23600 J A
6010C	7439-92-1	Lead	mg/kg	20.2 J E, Q	17.0 J E, Q	29.2 J FD, E, Q	81.7 J FD, E, Q	15.0 J E, Q	5.65 J E, Q	7.81	9.75	10.5
6010C	7439-93-2	Lithium	mg/kg	23.7	23.3	26.6	26.9	21.5	21.7	22.2	22.4	22.9
6010C	7439-95-4	Magnesium	mg/kg	4360	4920	5300	5060	4700	4600	3550	3720	4930
6010C	7439-96-5	Manganese	mg/kg	288	297	276	299	290	270	243	255	253
6010C	7439-98-7	Molybdenum	mg/kg	1.96 U F	2.03 U F	2.06 U F	2.04 U F	2.03 U F	2.03 U F	2.04 UJ F, FD, B	2.01 UJ F, FD, B	2.02 U
6010C	7440-02-0	Nickel	mg/kg	12.5	11.2	10.9	10.5	11.3	8.79 J A	6.82	7.63	8.44 J E
6010C	9/7/7440	Potassium	mg/kg	3230 J Q	2940 J Q	3480 J Q	4010 J Q	4240 J Q	2670 J Q	2980 J Q	3160 J Q	2600 J Q
6010C	7440-23-5	Sodium	mg/kg	98.2 U F	101 U F	103 U F	102 U F	67.7 J Z	102 U F	63.8 J Z	63.2 J Z	111
6010C	7440-31-5	Tin	mg/kg	9.82 U B	10.1 U B	10.3 U B	10.2 U B	10.2 U B	10.2 U B	10.2 U B	10.1 U B	10.1 U B
6010C	7440-32-6	Titanium	mg/kg	1010	1000	1170	1190	1050	1120	945	1030	1190
6010C	7440-36-0	Antimony	mg/kg	1.04 J Q, Z	0.692 J Q, Z	4.11 UJ FD, Q	0.940 J FD, Q, Z	0.585 J Q, Z	0.627 J Q, Z	0.573 J Z	0.637 J Z	4.04 U
6010C	7440-38-2	Arsenic	mg/kg	5.76	5.38	5.14	5.19	4.74	4.66	4.18	4.31	4.74
6010C	7440-39-3	Barium	mg/kg	61.4	73	73.5	74.3	72.3	70.4	61.3	65.4	70.9
6010C	7440-41-7	Beryllium	mg/kg	0.429 J Z	0.486 J Z	0.542 J Z	0.589 J Z	0.487 J Z	0.556 J Z	0.404 J Z	0.453 J Z	0.476 J Z
6010C	7440-42-8	Boron	mg/kg	9.82 U F	10.1 U F	10.3 UJ B, F, FD	10.2 UJ B, F, FD	10.2 U B	10.2 U F	6.16 J Z	6.30 J Z	2.55 J Z
6010C	7440-43-9	Cadmium	mg/kg	0.260 J Z	0.330 J Z	0.120 J Z	0.0868 J Z	0.336 J Z	0.152 J Z	0.513 J Z	0.511 J Z	0.397 J Z
6010C	7440-47-3	Chromium	mg/kg	21.5	18.2	20.4	19.7	20.4	17.3	11.6	12.4	17.4
6010C	7440-48-4	Cobalt	mg/kg	8.41 J E	5.83 J E	4.8	5.14	5.18	4.43 J E	3.77	4.18	6.2
6010C	7440-50-8	Copper	mg/kg	20.8	16.3	12.8	13.2	16.9	10.9	5.37	5.92	11.7
6010C	7440-62-2	Vanadium	mg/kg	34.9	34.2	36.7	38.6	37.3	34.8	25	26.7	38.3
6010C	7440-66-6	Zinc	mg/kg	70.8	90.6	62.4	69.1	81.4	51.2	67.4	76.4	61.7
6010C	7440-67-7	Zirconium	mg/kg	2.34 J Z	2.53 J Z	2.52 J Z	2.72 J Z	2.17 J Z	2.31 J Z	2.22 J Z	2.48 J Z	5.06 U
6010C	7440-70-2	Calcium	mg/kg	2870 J E	4410 J E	2950	2670	3940	3070 J E	2450	2620	3260 J E
6010C	7723-14-0	Phosphorus	mg/kg	448 J E	422 J E	436	486	577	315 J E, A	385	389	417 J Q
6020A	7440-22-4	Silver	mg/kg	0.0678 J Z	0.0409 J Z	0.0279 J Z	0.0404 J Z	0.0715 J Z	0.203 U	0.0323 J FD, Z	0.201 UJ FD	0.0339 J Z
6020A	7440-24-6	Strontium	mg/kg	17.2	23.5	13.2 J Q	11.4 J Q	16.7 J Q	21.9	8.69	9.91	15.7 J E
6020A	7440-28-0	Thallium	mg/kg	0.294	0.269	0.283	0.211	0.214	0.239	0.202 J Z	0.209	0.217
6020A	7782-49-2	Selenium	mg/kg	0.109 J Z	0.209 J Z	0.411 UJ FD	0.144 J FD, Z	0.129 J Z	0.164 J Z	0.407 U	0.402 U	0.120 J Z

U-Compound not detected above reporting limit
J-Result is an estimated value
R-Result is rejected if R qualifier is in first position. If R qualifier is after another qualifier, result is not rejected but qualified as estimated during validation

			Sample Name	SL-515-SA7-SB-0.0-0.5	SL-516-SA7-SB-0.0-0.5	SL-517-SA7-SB-0.0-0.5	SL-518-SA7-SB-0.0-0.5	SL-519-SA7-SB-0.0-0.5	SL-819-SA7-SB-0.0-0.5	SL-519-SA7-SB-2.0-3.0	SL-520-SA7-SB-0.0-0.5	SL-521-SA7-SB-0.0-0.5
			Sample Type	N	N	N	N	N	FD	N	N	N
			Sample Date	06/06/2013	06/04/2013	04/22/2013	04/19/2013	04/25/2013	04/25/2013	04/25/2013	04/19/2013	04/15/2013
			SDG	PH049	PH046	PH036	PH035	PH039	PH039	PH039	PH035	PH031
			Start Depth	0	0	0	0	0	0	2	0	0
			End Depth	0.5	0.5	0.5	0.5	0.5	0.5	3	0.5	0.5
Analytic Method	CAS Number	Chemical Name	Unit									
6010C	7429-90-5	Aluminum	mg/kg	11100	12400	12500	13900	11700	12000	11700	12700	16700
6010C	7439-89-6	Iron	mg/kg	23100 J A	20900	22300	21900	17900	18500	20300	22500	19500
6010C	7439-92-1	Lead	mg/kg	4.81	4.8	17.5 J E, Q	24.1 J E, Q	23.8 J E, Q	15.1 J E, Q	7.87 J E, Q	13.5 J E, Q	8.4
6010C	7439-93-2	Lithium	mg/kg	28.1	28.3	24.3	25.7	20.2	19.6	20.7	24.9	25
6010C	7439-95-4	Magnesium	mg/kg	4680	5790	4870	5270	4490	4550	4810	5270	3830
6010C	7439-96-5	Manganese	mg/kg	412	308	434	330	355	328	333	290	249
6010C	7439-98-7	Molybdenum	mg/kg	1.97 U	2.04 U F, B	2.02 U F	1.99 U F	2.79 J FD	2.07 UJ F, FD	2.03 U F	2.00 U F	1.96 U F, B
6010C	7440-02-0	Nickel	mg/kg	7.22 J E	10.5	18.2	13.4	8.90 J A	10.1	9.69	11.1	7.54
6010C	9/7/7440	Potassium	mg/kg	2750 J Q	2930 J Q	3300 J Q	4520 J Q	3090 J Q	3320 J Q	2850 J Q	4220 J Q	2990 J Q
6010C	7440-23-5	Sodium	mg/kg	81.3 J Z	319	101 U F	77.0 J Z	101 U F	103 U F	101 U F	63.2 J Z	64.5 J Z
6010C	7440-31-5	Tin	mg/kg	9.85 U B	10.2 U B	10.1 U B	9.95 U B	10.9 J FD	10.3 UJ B, FD	10.1 U B	10.0 U B	9.79 U B
6010C	7440-32-6	Titanium	mg/kg	1290	1270	1100	1190	977	1040	1060	1150	1140
6010C	7440-36-0	Antimony	mg/kg	3.94 U	4.08 U	1.06 J Q, Z	0.777 J Q, Z	4.63 J FD, Q	0.542 J FD, Q, Z	0.737 J Q, Z	4.00 UJ Q	1.52 J Q, Z
6010C	7440-38-2	Arsenic	mg/kg	4.87	5.1	5.22	5.28	4.45	4.09 J Z	3.96 J Z	4.78	3.85 J Z
6010C	7440-39-3	Barium	mg/kg	66.9	72.9	80.8	84.9	104	107	83.7	80.7	79.6
6010C	7440-41-7	Beryllium	mg/kg	0.439 J Z	0.538 J Z	0.510 J Z	0.544 J Z	0.463 J Z	0.473 J Z	0.506 J Z	0.522 J Z	0.618 J Z
6010C	7440-42-8	Boron	mg/kg	1.67 J Z	6.24 J Z	10.1 U B, F	9.95 U B	10.1 U F	10.3 U F	10.1 U F	10.0 U B	2.86 J Z
6010C	7440-43-9	Cadmium	mg/kg	0.404 J Z	0.518 J Z	0.399 J Z	0.606 J Z	1.19 J FD	0.380 J FD, Z	0.239 J Z	0.128 J Z	0.379 J Z
6010C	7440-47-3	Chromium	mg/kg	16.1	19.4	30.2	21.8	15.4	17	22.2	19.9	14.8
6010C	7440-48-4	Cobalt	mg/kg	4.94	5.41	5.57	10.8	7.61 J FD, E	4.40 J FD, E	5.56 J E	5.01	4.71
6010C	7440-50-8	Copper	mg/kg	8.75 J Z	6.89	15.1	20.2	12.3	12	11	14	5.01
6010C	7440-62-2	Vanadium	mg/kg	33.9	39.3	36.9	40.1	29.3	30.2	33	38.3	29.5
6010C	7440-66-6	Zinc	mg/kg	54.1	58.8	94.5	109	71	69.5	58	60.6	80.4
6010C	7440-67-7	Zirconium	mg/kg	4.92 U	2.72 J Z	12.5	2.82 J Z	2.49 J Z	2.54 J Z	2.27 J Z	2.43 J Z	4.90 U
6010C	7440-70-2	Calcium	mg/kg	12000 J E	4380	4080	3620	7940 J E	6150 J E	3800 J E	3860	2210
6010C	7723-14-0	Phosphorus	mg/kg	438 J Q	410	460	548	679 J E, A	515 J E	408 J E	426	363 J Q
6020A	7440-22-4	Silver	mg/kg	0.197 U	0.0368 J Z	0.0593 J Z	0.0918 J Z	0.0351 J Z	0.0326 J Z	0.0224 J Z	0.0306 J Z	0.0272 J Z
6020A	7440-24-6	Strontium	mg/kg	17.2 J E	15	16.7 J Q	12.9 J Q	37.5	36.6	23.1	14.3 J Q	17.3
6020A	7440-28-0	Thallium	mg/kg	0.237	0.304	0.245	0.24	0.23	0.259	0.315	0.205	0.245
6020A	7782-49-2	Selenium	mg/kg	0.105 J Z	0.108 J Z	0.405 U	0.398 U	0.189 J Z	0.139 J Z	0.154 J Z	0.400 U	0.173 J Z

U-Compound not detected above reporting limit
J-Result is an estimated value
R-Result is rejected if R qualifier is in first position. If R qualifier is after another qualifier, result is not rejected but qualified as estimated during validation

			Sample Name	SL-522-SA7-SB-0.0-0.5	SL-524-SA7-SB-0.0-0.5	SL-524-SA7-SB-1.0-2.0	SL-924-SA7-SB-1.0-2.0	SL-525-SA7-SB-0.0-0.5	SL-525-SA7-SB-4.0-5.0	SL-525-SA7-SB-6.5-7.5	SL-525-SA7-SB-9.5-10.5	SL-526-SA7-SB-0.0-0.5
			Sample Type	N	N	N	FD	N	N	N	N	N
			Sample Date	04/15/2013	06/04/2013	06/04/2013	06/04/2013	04/23/2013	06/03/2013	04/24/2013	06/03/2013	04/23/2013
			SDG	PH031	PH046	PH046	PH046	PH037	PH045	PH038	PH045	PH037
			Start Depth	0	0	1	1	0	4	6.5	9.5	0
			End Depth	0.5	0.5	2	2	0.5	5	7.5	10.5	0.5
Analytic Method	CAS Number	Chemical Name	Unit									
6010C	7429-90-5	Aluminum	mg/kg	12800	11300	12300	13300	13000	16600	14600	19500	15400
6010C	7439-89-6	Iron	mg/kg	18300	19000	22000 J A	21500 J A	18200	16900	18000	17700	21500
6010C	7439-92-1	Lead	mg/kg	13.3	4.2	5.69	5.95	12.5 J E, Q	5.46	7.48 J E, Q	4.67	6.86 J E, Q
6010C	7439-93-2	Lithium	mg/kg	23.6	20.4	27.4	27	21.1	19.1	22.3	18.5	22.4
6010C	7439-95-4	Magnesium	mg/kg	3780	3960	4840	4600	3950	3690	3960	3490	4640
6010C	7439-96-5	Manganese	mg/kg	304	258	280	269	228	224	256	259	251
6010C	7439-98-7	Molybdenum	mg/kg	2.07 U F, B	2.11 U F	2.08 UJ F, FD, B	2.12 UJ F, FD, B	2.04 U F	2.02 U F, B	2.06 U F	2.02 U F, B	2.17 U F
6010C	7440-02-0	Nickel	mg/kg	8.48	9.34	7.90 J E	8.12 J E	8.31 J A	6.52	8.84 J A	6.73	9.24 J A
6010C	9/7/7440	Potassium	mg/kg	2900 J Q	2560	3230 J Q	2870 J Q	3300 J Q	1140 J Q	2490 J Q	1300 J Q	2980 J Q
6010C	7440-23-5	Sodium	mg/kg	70.7 J Z	111	123	132	102 U F	101	103 U F	111	108 U F
6010C	7440-31-5	Tin	mg/kg	10.4 U B	10.6 U B	10.4 U B	10.6 U B	10.2 U B	10.1 U B	10.3 U B	10.1 U B	10.8 U B
6010C	7440-32-6	Titanium	mg/kg	973	926	1280	1250	1080	1030	1060	1210	1140
6010C	7440-36-0	Antimony	mg/kg	1.89 J Q, Z	4.22 U	4.16 U	4.25 U	0.545 J Q, Z	0.736 J Z	0.754 J Q, Z	0.721 J Z	4.33 UJ Q
6010C	7440-38-2	Arsenic	mg/kg	2.40 J Z	4.01 J Z	3.93 J Z	4.15 J Z	4.95	4.51	5.02	6.03	4.97
6010C	7440-39-3	Barium	mg/kg	88.8	70.4	88.1	78.6	66.2	44.9	56.5	44.8	69.9
6010C	7440-41-7	Beryllium	mg/kg	0.537 J Z	0.490 J Z	0.480 J Z	0.518 J Z	0.510 J Z	0.740 J Z	0.603 J Z	0.630 J Z	0.629 J Z
6010C	7440-42-8	Boron	mg/kg	3.26 J Z	2.52 J Z	1.87 J Z	2.31 J Z	10.2 U F	6.22 J Z	10.3 U F	6.43 J Z	10.8 U F
6010C	7440-43-9	Cadmium	mg/kg	0.468 J Z	1.06 U	0.370 J Z	0.363 J Z	0.231 J Z	0.381 J Z	0.142 J Z	0.349 J Z	0.233 J Z
6010C	7440-47-3	Chromium	mg/kg	14.7	14.3	18.5	17.8	16.1	16.5	19	17.3	20.3
6010C	7440-48-4	Cobalt	mg/kg	4.75	3.77	4.59	4.93	3.90 J E	3.94	4.23 J E	4.04	4.64 J E
6010C	7440-50-8	Copper	mg/kg	6.52	7.27	10.3 J Z	10.1 J Z	10.7	4.08	11.1	4.7	11.1
6010C	7440-62-2	Vanadium	mg/kg	27.1	42.4	32.9	34.2	31.7	30.6	30.1	31	38.1
6010C	7440-66-6	Zinc	mg/kg	59.4	50.2	59.2	54.3	53.1	34.9	47.8	36.8	50.5
6010C	7440-67-7	Zirconium	mg/kg	5.19 U	3.19 J Z	5.20 UJ FD	1.01 J FD, Z	2.29 J Z	3.13 J Z	2.41 J Z	3.20 J Z	2.78 J Z
6010C	7440-70-2	Calcium	mg/kg	2600	5380	5580 J FD, E	3310 J FD, E	3910 J E	1830	3680 J E	2080	3050 J E
6010C	7723-14-0	Phosphorus	mg/kg	406 J Q	513	401 J Q	410 J Q	305 J E, A	121	255 J E, A	191	300 J E, A
6020A	7440-22-4	Silver	mg/kg	0.0296 J Z	0.0320 J Z	0.208 UJ FD	0.0230 J FD, Z	0.0696 J Z	0.202 U	0.0459 J Z	0.0319 J Z	0.0470 J Z
6020A	7440-24-6	Strontium	mg/kg	22.5	23.9	17.9 J E	15.4 J E	26.5	14.4	21.8	12.7	21.8
6020A	7440-28-0	Thallium	mg/kg	0.236	0.303	0.285	0.228	0.286	0.176 J Z	0.253	0.185 J Z	0.297
6020A	7782-49-2	Selenium	mg/kg	0.145 J Z	0.137 J Z	0.416 U	0.425 U	0.182 J Z	0.103 J Z	0.412 U	0.403 U	0.159 J Z

U-Compound not detected above reporting limit
J-Result is an estimated value
R-Result is rejected if R qualifier is in first position. If R qualifier is after another qualifier, result is not rejected but qualified as estimated during validation

			Sample Name	SL-526-SA7-SB-3.5-4.5	SL-526-SA7-SB-9.0-10.0	SL-527-SA7-SB-0.0-0.5	SL-527-SA7-SB-2.5-3.5	SL-528-SA7-SB-0.0-0.5	SL-529-SA7-SB-0.0-0.5	SL-530-SA7-SB-0.0-0.5	SL-531-SA7-SB-0.0-0.5	SL-532-SA7-SB-0.0-0.5
			Sample Type	N	N	N	N	N	N	N	N	N
			Sample Date	04/23/2013	06/03/2013	04/24/2013	04/24/2013	04/24/2013	04/24/2013	04/18/2013	04/18/2013	04/18/2013
			SDG	PH037	PH045	PH038	PH038	PH038	PH038	PH034	PH034	PH034
			Start Depth	3.5	9	0	2.5	0	0	0	0	0
			End Depth	4.5	10	0.5	3.5	0.5	0.5	0.5	0.5	0.5
Analytic Method	CAS Number	Chemical Name	Unit									
6010C	7429-90-5	Aluminum	mg/kg	20000	18400	14800	14000	12700	9390	8670	10600	9440
6010C	7439-89-6	Iron	mg/kg	23500	20600	24300	22500	24700	21800	15400	18900	19000
6010C	7439-92-1	Lead	mg/kg	6.34 J E, Q	5.96	13.2 J E, Q	4.78 J E, Q	6.10 J E, Q	8.52 J E, Q	25.2 J E, Q	7.89 J E, Q	5.40 J E, Q
6010C	7439-93-2	Lithium	mg/kg	24.5	23.4	25.7	17.7	20.4	20.1	18.7	24.1	26.7
6010C	7439-95-4	Magnesium	mg/kg	4360	3220	6170	5820	6430	5430	2760	4700	4230
6010C	7439-96-5	Manganese	mg/kg	171	180	342	277	330	211	250	285	269
6010C	7439-98-7	Molybdenum	mg/kg	2.07 U F	2.12 U F, B	2.01 U F	2.05 U F	2.01 U F	2.04 U	2.02 U	1.99 U	2.00 U
6010C	7440-02-0	Nickel	mg/kg	9.17 J A	5.91	14.6 J A	13.0 J A	11.7 J A	9.25 J A	5.31	8.18	6.94
6010C	9/7/7440	Potassium	mg/kg	1370 J Q	1330 J Q	3590 J Q	2210 J Q	2130 J Q	1850 J Q	3640 J Q	4180 J Q	3290 J Q
6010C	7440-23-5	Sodium	mg/kg	118	106	101 U F	103 U F	101 U F	102 U F	57.4 J Z	56.5 J Z	53.0 J Z
6010C	7440-31-5	Tin	mg/kg	10.4 U B	10.6 U B	10.1 U B	10.3 U B	10.1 U B	10.2 U B	10.1 U B	9.93 U B	9.98 U B
6010C	7440-32-6	Titanium	mg/kg	1100	1010	1370	1370	1310	971	891	1070	1030
6010C	7440-36-0	Antimony	mg/kg	4.14 UJ B, Q	0.959 J Z	0.726 J Q, Z	0.830 J Q, Z	0.903 J Q, Z	0.598 J Q, Z	4.04 UJ Q	3.97 UJ Q	3.99 UJ Q
6010C	7440-38-2	Arsenic	mg/kg	5.22	6.72	3.93 J Z	3.93 J Z	4.35	4.64	4.53	3.82 J Z	3.93 J Z
6010C	7440-39-3	Barium	mg/kg	65.3	41.6	96.9	63.1	72.4	59	68	77.7	69.2
6010C	7440-41-7	Beryllium	mg/kg	0.817 J Z	0.789 J Z	0.569 J Z	0.795 J Z	0.560 J Z	0.536 J Z	0.395 J Z	0.463 J Z	0.382 J Z
6010C	7440-42-8	Boron	mg/kg	10.4 U F	7.42 J Z	10.1 U F	10.3 U F	10.1 U F	10.2 U F	10.1 U B	9.93 U B	9.98 U B
6010C	7440-43-9	Cadmium	mg/kg	0.0952 J Z	0.402 J Z	0.294 J Z	0.189 J Z	0.181 J Z	0.151 J Z	0.194 J Z	0.139 J Z	0.106 J Z
6010C	7440-47-3	Chromium	mg/kg	21.9	15	25.1	26.8	23.4	18.2	9.62	15.8	13.1
6010C	7440-48-4	Cobalt	mg/kg	3.89 J E	4.07	5.80 J E	7.28 J E	6.60 J E	4.26 J E	3.26	4.57	3.67
6010C	7440-50-8	Copper	mg/kg	9.6	5.12	14.9	14	15.4	8.58	8.23	10.7	8.85
6010C	7440-62-2	Vanadium	mg/kg	40.4	36.6	44.6	42.6	44.6	33.3	19	30.9	26.8
6010C	7440-66-6	Zinc	mg/kg	41	34.8	61.6	52.2	57.5	55.5	61	57.9	57
6010C	7440-67-7	Zirconium	mg/kg	2.90 J Z	2.93 J Z	2.54 J Z	2.63 J Z	2.30 J Z	1.55 J Z	1.59 J Z	1.97 J Z	1.58 J Z
6010C	7440-70-2	Calcium	mg/kg	2520 J E	1720	3850 J E	1740 J E	3850 J E	2830 J E	2410	2780	3900
6010C	7723-14-0	Phosphorus	mg/kg	164 J E, A	234	437 J E, A	349 J E, A	401 J E, A	338 J E, A	399	445	370
6020A	7440-22-4	Silver	mg/kg	0.0711 J Z	0.0362 J Z	0.0447 J Z	0.205 U	0.0256 J Z	0.0393 J Z	0.0245 J Z	0.199 U	0.200 U
6020A	7440-24-6	Strontium	mg/kg	22.4	11.9	27.8	11.7	18.6	17.9	10.8 J Q	9.97	9.47
6020A	7440-28-0	Thallium	mg/kg	0.28	0.176 J Z	0.36	0.314	0.364	0.398	0.226	0.198 J Z	0.206
6020A	7782-49-2	Selenium	mg/kg	0.104 J Z	0.112 J Z	0.182 J Z	0.109 J Z	0.180 J Z	0.358 J Z	0.404 U	0.397 U	0.399 U

U-Compound not detected above reporting limit
J-Result is an estimated value
R-Result is rejected if R qualifier is in first position. If R qualifier is after another qualifier, result is not rejected but qualified as estimated during validation

			Sample Name	SL-532-SA7-SB-3.0-4.0	SL-533-SA7-SB-0.0-0.5	SL-533-SA7-SB-2.5-3.5	SL-534-SA7-SB-0.0-0.5	SL-534-SA7-SB-5.5-6.5	SL-535-SA7-SB-0.0-0.5	SL-535-SA7-SB-4.0-5.0	SL-535-SA7-SB-9.0-10.0	SL-536-SA7-SB-0.0-0.5
			Sample Type	N	N	N	N	N	N	N	N	N
			Sample Date	06/03/2013	04/18/2013	06/03/2013	04/12/2013	04/15/2013	04/12/2013	04/12/2013	04/12/2013	04/11/2013
			SDG	PH045	PH034	PH045	PH030	PH031	PH030	PH030	PH030	PH029
			Start Depth	3	0	2.5	0	5.5	0	4	9	0
			End Depth	4	0.5	3.5	0.5	6.5	0.5	5	10	0.5
Analytic Method	CAS Number	Chemical Name	Unit									
6010C	7429-90-5	Aluminum	mg/kg	17400	17200	12900	15300	14300	11800	15900	13400	9260
6010C	7439-89-6	Iron	mg/kg	29600	23100	20400	22800	23300	21600	24000	22500	15500
6010C	7439-92-1	Lead	mg/kg	6.11	10.2 J E, Q	4.87	6.81	5.42	7.03	6.08	6.56	4.32
6010C	7439-93-2	Lithium	mg/kg	37.3	26.5	17.6	27.8	24.2	27.7	30.3	25.9	22
6010C	7439-95-4	Magnesium	mg/kg	8940	5680	5670	5130	5260	4660	5420	5060	3870
6010C	7439-96-5	Manganese	mg/kg	426	382	245	323	289	299	346	347	228
6010C	7439-98-7	Molybdenum	mg/kg	2.09 U F, B	1.99 U F	2.04 U F, B	2.08 U F	2.02 U F, B	2.00 U F	2.02 U F	2.03 U F	2.03 U
6010C	7440-02-0	Nickel	mg/kg	22.7	14.8	12	11.8	10.9	9.04	12.9	11.6	7.27
6010C	9/7/7440	Potassium	mg/kg	3310 J Q	3860 J Q	2070 J Q	4390 J Q	2570 J Q	4110 J Q	4100 J Q	3650 J Q	3030 J Q
6010C	7440-23-5	Sodium	mg/kg	118	63.6 J Z	110	60.8 J Z	67.8 J Z	61.6 J Z	70.7 J Z	71.3 J Z	55.1 J Z
6010C	7440-31-5	Tin	mg/kg	10.4 U B	9.97 U B	10.2 U B	10.4 U B	10.1 U B	9.98 U B	10.1 U B	10.2 U B	10.2 U B
6010C	7440-32-6	Titanium	mg/kg	1740	1340	1270	1230	1200	1150	1300	1210	875
6010C	7440-36-0	Antimony	mg/kg	0.822 J Z	0.770 J Q, Z	0.653 J Z	1.96 J Q, Z	1.87 J Q, Z	1.78 J Q, Z	2.47 J Q, Z	2.10 J Q, Z	4.07 UJ Q
6010C	7440-38-2	Arsenic	mg/kg	5.4	4.95	4.76	2.83 J Z	2.46 J Z	2.11 J Z	2.17 J Z	2.20 J Z	3.54 J Z
6010C	7440-39-3	Barium	mg/kg	130	95.3	53.2	90.9	81	80.6	96.9	82.8	61.4
6010C	7440-41-7	Beryllium	mg/kg	0.802 J Z	0.669 J Z	0.543 J Z	0.592 J Z	0.582 J Z	0.521 J Z	0.596 J Z	0.546 J Z	0.411 J Z
6010C	7440-42-8	Boron	mg/kg	7.47 J Z	9.97 U B	6.47 J Z	4.80 J Z	1.47 J Z	3.82 J Z	2.92 J Z	2.37 J Z	2.81 J Z
6010C	7440-43-9	Cadmium	mg/kg	0.667 J Z	0.0439 J Z	0.485 J Z	0.533 J Z	0.418 J Z	0.541 J Z	0.603 J Z	0.511 J Z	0.162 J Z
6010C	7440-47-3	Chromium	mg/kg	38.8	25.7	26.7	20.7	24.5	17.9	22.3	27.8	12.7
6010C	7440-48-4	Cobalt	mg/kg	7.49	6.38	5.99	6.36	5.81	5.4	6.49	6.43	3.5
6010C	7440-50-8	Copper	mg/kg	8.78	16.4	8.68	8.38	6.24	6.46	9.09	6.96	5.16
6010C	7440-62-2	Vanadium	mg/kg	54.3	49.1	41.8	39.4	39.4	31.7	40.8	37	24.9
6010C	7440-66-6	Zinc	mg/kg	78.4	60.9	56.5	59.4	50.4	66.5	63.2	60.5	63
6010C	7440-67-7	Zirconium	mg/kg	3.05 J Z	3.18 J Z	2.07 J Z	1.13 J Z	5.04 U	4.99 U	1.05 J Z	5.08 U	5.08 U
6010C	7440-70-2	Calcium	mg/kg	4150	3660	2650	3600	2510	3510	2360	2890	2690 J E
6010C	7723-14-0	Phosphorus	mg/kg	524	375	385	532 J Q	295 J Q	484 J Q	531 J Q	470 J Q	372 J Q
6020A	7440-22-4	Silver	mg/kg	0.209 U	0.0368 J Z	0.204 U	0.0407 J Z	0.0330 J Z	0.200 U	0.0452 J Z	0.0260 J Z	0.203 U
6020A	7440-24-6	Strontium	mg/kg	15.2	19.7	11.7	17.7	13.8	15.1	14.3	15	11.0 J Q
6020A	7440-28-0	Thallium	mg/kg	0.352	0.271	0.249	0.272	0.227	0.258	0.262	0.273	0.204
6020A	7782-49-2	Selenium	mg/kg	0.151 J Z	0.231 J Z	0.414	0.415 U	0.403 U	0.399 U	0.166 J Z	0.119 J Z	0.407 U

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			Sample Name	SL-536-SA7-SB-3.0-4.0	SL-836-SA7-SB-3.0-4.0	SL-537-SA7-SB-0.0-0.5	SL-538-SA7-SB-0.0-0.5	SL-539-SA7-SB-0.0-0.5	SL-540-SA7-SB-0.0-0.5	SL-840-SA7-SB-0.0-0.5	SL-541-SA7-SB-0.0-0.5	SL-541-SA7-SB-2.0-3.0
			Sample Type	N	FD	N	N	N	N	FD	N	N
			Sample Date	04/12/2013	04/12/2013	04/15/2013	04/15/2013	04/08/2013	04/09/2013	04/09/2013	10/02/2013	10/02/2013
			SDG	PH030	PH030	PH031	PH031	PH027	PH027	PH027	PH121	PH121
			Start Depth	3	3	0	0	0	0	0	0	2
			End Depth	4	4	0.5	0.5	0.5	0.5	0.5	0.5	3
Analytic Method	CAS Number	Chemical Name	Unit									
6010C	7429-90-5	Aluminum	mg/kg	10800	10800	11000	11600	11100	13300	14800	10800	9070
6010C	7439-89-6	Iron	mg/kg	19000	19600	20600	19500	18100	19000	19100	16400	15900
6010C	7439-92-1	Lead	mg/kg	5.13	5.13	11.8	10.6	5.7	5.22	4.92	4.47	3.39
6010C	7439-93-2	Lithium	mg/kg	23.5	23.8	27.2	24.5	24.9	22.4	23.6	17.6	27.7
6010C	7439-95-4	Magnesium	mg/kg	4080	3870	4640	4030	4370	4080	4100	3720	4470
6010C	7439-96-5	Manganese	mg/kg	283	276	296	281	253	244	245	274	228
6010C	7439-98-7	Molybdenum	mg/kg	1.97 UJ F, FD	1.98 UJ F, FD	2.03 U	2.01 U F, B	2.05 U	2.05 UJ F, FD, B	2.00 UJ FD	2.12 U F	2.06 U F
6010C	7440-02-0	Nickel	mg/kg	8.67	7.16	8.37	8.86	8.54	8.81	8.86	7.67	7.33
6010C	9/7/7440	Potassium	mg/kg	2760 J Q	2710 J Q	3900 J Q	3600 J Q	3290 J Q	3560 J Q	3400 J Q	2340 J Q	2580 J Q
6010C	7440-23-5	Sodium	mg/kg	61.3 J Z	59.4 J Z	62.0 J Z	60.1 J Z	66.5 J Z	69.3 J Z	69.5 J Z	114	111
6010C	7440-31-5	Tin	mg/kg	9.87 U B	9.89 U B	10.1 U B	10.1 U B	10.2 U B	10.2 U B	9.98 U B	10.6 U B	10.3 U B
6010C	7440-32-6	Titanium	mg/kg	1060	979	1110	1060	1030	888	983	735	833
6010C	7440-36-0	Antimony	mg/kg	1.58 J Q, Z	1.47 J Q, Z	1.73 J Q, Z	1.49 J Q, Z	4.10 UJ Q	4.10 UJ Q	3.99 UJ Q	4.23 UJ Q	4.12 UJ Q
6010C	7440-38-2	Arsenic	mg/kg	2.06 J Z	2.38 J Z	2.50 J Z	1.83 J Z	4.15	4.19	4.74	2.05 J Z	4.06 J Z
6010C	7440-39-3	Barium	mg/kg	72.1	66.7	73.3	81.1	72.8	72.7	73.5	81	62.5
6010C	7440-41-7	Beryllium	mg/kg	0.482 J Z	0.501 J Z	0.477 J Z	0.492 J Z	0.480 J Z	0.556 J Z	0.998 U B	0.402 J Z	0.415 J Z
6010C	7440-42-8	Boron	mg/kg	3.20 J Z	2.90 J Z	2.96 J Z	3.01 J Z	4.32 J Z	10.2 U	9.98 U	5.20 J Z	6.34 J Z
6010C	7440-43-9	Cadmium	mg/kg	0.420 J Z	0.453 J Z	0.511 J Z	0.445 J Z	0.161 J Z	0.0727 J Z	0.998 U B	0.210 J Z	0.219 J Z
6010C	7440-47-3	Chromium	mg/kg	18.5	14	16.5	17	14.6	15.2	15.4	13.2	14.7
6010C	7440-48-4	Cobalt	mg/kg	5.11	4.93	5.33	4.87	3.98	4.28	4	5.9	3.95
6010C	7440-50-8	Copper	mg/kg	5.13	4.57	6.31	5.72	6.64	6.71	6.02	10.5	9.45
6010C	7440-62-2	Vanadium	mg/kg	28.8	26.8	31	28.9	29.3	29.8	32	26.4	27.6
6010C	7440-66-6	Zinc	mg/kg	55.1	54.9	62.8	76.1	66.4	55.8	52.3	42.5	48.8
6010C	7440-67-7	Zirconium	mg/kg	1.11 J FD, Z	4.95 UJ FD	0.916 J Z	5.03 U	5.12 U	0.921 J FD, Z	4.99 UJ FD	1.91 J Z	2.37 J Z
6010C	7440-70-2	Calcium	mg/kg	3140	2540	3020	2470	3360 J E	3100 J E	2670 J E	3350	7590
6010C	7723-14-0	Phosphorus	mg/kg	367 J Q	344 J Q	466 J Q	409 J Q	396 J Q	399 J Q	426 J Q	516 J Q, E	383 J Q, E
6020A	7440-22-4	Silver	mg/kg	0.0307 J FD, Z	0.198 UJ FD	0.0361 J Z	0.0394 J Z	0.0585 J Z	0.0240 J FD, Z	0.200 UJ FD	0.212 U	0.206 U
6020A	7440-24-6	Strontium	mg/kg	12	10.9	11.3	13.6	13.9 J Q	19.4 J Q	14.9 J Q	19.4 J Q, E, A	18.6 J Q, E, A
6020A	7440-28-0	Thallium	mg/kg	0.232	0.248	0.25	0.267	0.255	0.223	0.244	0.259	0.248
6020A	7782-49-2	Selenium	mg/kg	0.395 U	0.396 U	0.405 U	0.402 U	0.410 U	0.102 J FD, Z	0.399 UJ FD	0.572	0.412 U

U-Compound not detected above reporting limit
J-Result is an estimated value
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			Sample Name	SL-542-SA7-SB-0.0-0.5	SL-544-SA7-SB-0.0-0.5	SL-547-SA7-SB-0.0-0.5	SL-548-SA7-SB-0.0-0.5	SL-549-SA7-SB-0.0-0.5	SL-551-SA7-SB-0.0-0.5	SL-551-SA7-SB-2.0-3.0	SL-552-SA7-SB-0.0-0.5	SL-553-SA7-SB-0.0-0.5
			Sample Type	N	N	N	N	N	N	N	N	N
			Sample Date	04/09/2013	04/09/2013	04/09/2013	04/10/2013	04/10/2013	04/10/2013	04/10/2013	04/10/2013	04/11/2013
			SDG	PH027	PH027	PH028	PH028	PH028	PH028	PH028	PH028	PH029
			Start Depth	0	0	0	0	0	0	2	0	0
			End Depth	0.5	0.5	0.5	0.5	0.5	0.5	3	0.5	0.5
Analytic Method	CAS Number	Chemical Name	Unit									
6010C	7429-90-5	Aluminum	mg/kg	13400	10800	11400	9600	11700	12000	11300	9920	11500
6010C	7439-89-6	Iron	mg/kg	17600	18200	16500	18500	19900	18600	18100	17500	20400
6010C	7439-92-1	Lead	mg/kg	4.91	4.04	5.62	5.75	7.88	7.1	4.81	4.34	7.06
6010C	7439-93-2	Lithium	mg/kg	21.7	25.1	22.5	24.7	25.7	23.9	26.1	26.9	29.2
6010C	7439-95-4	Magnesium	mg/kg	3950	4210	3120	3650	5080	4090	4490	4960	6440
6010C	7439-96-5	Manganese	mg/kg	241	262	237	255	338	251	283	255	302
6010C	7439-98-7	Molybdenum	mg/kg	2.04 U	1.97 U	2.00 U	0.403 J Z	2.04 U	2.03 U	2.08 U	2.02 U	2.00 U
6010C	7440-02-0	Nickel	mg/kg	8.56	7.81	5.93	6.27	10.2	8.2	8.96	10	11.8
6010C	9/7/7440	Potassium	mg/kg	2560 J Q	3280 J Q	3600 J Q	3750 J Q	4180 J Q	3880 J Q	3280 J Q	2950 J Q	3090 J Q
6010C	7440-23-5	Sodium	mg/kg	71.7 J Z	66.5 J Z	66.5 J Z	56.7 J Z	62.7 J Z	65.0 J Z	62.5 J Z	86.7 J Z	69.1 J Z
6010C	7440-31-5	Tin	mg/kg	10.2 U B	9.84 U B	10.0 U B	9.96 U B	10.2 U B	10.1 U B	10.4 U B	10.1 U B	10.0 U B
6010C	7440-32-6	Titanium	mg/kg	932	1000	958	999	1050	982	1040	1000	1190
6010C	7440-36-0	Antimony	mg/kg	4.08 UJ Q	3.94 UJ Q	4.01 UJ Q	1.41 J Q, Z	4.08 UJ Q	4.05 UJ Q	4.16 UJ Q	4.04 UJ Q	4.00 UJ Q
6010C	7440-38-2	Arsenic	mg/kg	4.48	3.40 J Z	3.78 J Z	1.72 J Z	4.51	4.03 J Z	4.02 J Z	3.35 J Z	4
6010C	7440-39-3	Barium	mg/kg	70.3	70.7	67.8	71.2	74.6	77.6	77.4	67.9	88.2
6010C	7440-41-7	Beryllium	mg/kg	0.527 J Z	0.984 U B	1.00 U B	0.408 J Z	1.02 U B	1.01 U B	1.04 U B	1.01 U B	1.00 U B
6010C	7440-42-8	Boron	mg/kg	10.2 U	9.84 U	2.59 J Z	4.15 J Z	10.2 U	10.1 U	10.4 U	10.1 U	10.0 U
6010C	7440-43-9	Cadmium	mg/kg	0.118 J Z	0.984 U B	1.00 U B	0.448 J Z	1.02 U B	1.01 U B	1.04 U B	1.01 U B	1.00 U B
6010C	7440-47-3	Chromium	mg/kg	15	14.3	9.79	12	17.2	13.9	15.6	19	20.7
6010C	7440-48-4	Cobalt	mg/kg	4.04	3.74	3.19	4.53	5.78	3.73	4.09	4.27	4.78
6010C	7440-50-8	Copper	mg/kg	6.05	5.32	3.54	4.26	6.96	6.2	5.44	7.1	7.89
6010C	7440-62-2	Vanadium	mg/kg	30.4	29.2	21.3	23.6	34	28.6	30.4	33.7	40.1
6010C	7440-66-6	Zinc	mg/kg	48.8	56.3	56.4	61.4	56.2	72.3	55.2	59	60.8
6010C	7440-67-7	Zirconium	mg/kg	5.10 U	4.92 U	5.01 U	4.98 U	5.10 U	5.06 U	5.20 U	5.05 U	5.01 U
6010C	7440-70-2	Calcium	mg/kg	3600 J E	2460 J E	1360 J E	2230 J E	6380 J E	2720 J E	4750 J E	3470 J E	8930 J E
6010C	7723-14-0	Phosphorus	mg/kg	369 J Q	405 J Q	277	406 J Q	438 J Q	405 J Q	366 J Q	430 J Q	459 J Q
6020A	7440-22-4	Silver	mg/kg	0.204 U	0.0205 J Z	0.200 U	0.0315 J Z	0.0306 J Z	0.0411 J Z	0.208 U	0.202 U	0.0459 J Z
6020A	7440-24-6	Strontium	mg/kg	18.2 J Q	10.0 J Q	7.03 J Q	8.13 J Q	12.5 J Q	12.3 J Q	11.3 J Q	10.8 J Q	19.2 J Q
6020A	7440-28-0	Thallium	mg/kg	0.241	0.25	0.257	0.232	0.232	0.253	0.209	0.206	0.223
6020A	7782-49-2	Selenium	mg/kg	0.187 J Z	0.394 U	0.401 U	0.399 U	0.196 J Z	0.405 U	0.416 U	0.106 J Z	0.107 J Z

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			Sample Name	SL-554-SA7-SB-0.0-0.5	SL-555-SA7-SB-0.0-0.5	SL-557-SA7-SB-0.0-0.5	SL-558-SA7-SB-0.0-0.5	SL-558-SA7-SB-3.0-4.0	SL-559-SA7-SB-0.0-0.5	SL-559-SA7-SB-2.0-3.0	SL-560-SA7-SB-0.0-0.5	SL-560-SA7-SB-3.0-4.0
			Sample Type	N	N	N	N	N	N	N	N	N
			Sample Date	04/11/2013	04/11/2013	04/17/2013	04/16/2013	04/17/2013	04/16/2013	04/16/2013	04/16/2013	04/16/2013
			SDG	PH029	PH029	PH033	PH032	PH033	PH032	PH032	PH032	PH032
			Start Depth	0	0	0	0	3	0	2	0	3
			End Depth	0.5	0.5	0.5	0.5	4	0.5	3	0.5	4
Analytic Method	CAS Number	Chemical Name	Unit									
6010C	7429-90-5	Aluminum	mg/kg	13300	14800	15200	9610	14800	15500	15600	15900	30600
6010C	7439-89-6	Iron	mg/kg	19400	19600	26000	14000	22700	21500	21200	22100	30900
6010C	7439-92-1	Lead	mg/kg	8.02	10.5	7.50 J E, Q	19.5	5.53 J E, Q	10.2	10	30.2	12.1
6010C	7439-93-2	Lithium	mg/kg	22.7	20.4	25.7	12	26	19.7	19.6	19.5	26.3
6010C	7439-95-4	Magnesium	mg/kg	4510	4080	6280	2600	4890	3950	3820	4410	7330
6010C	7439-96-5	Manganese	mg/kg	281	291	365	198	320	288	328	297	493
6010C	7439-98-7	Molybdenum	mg/kg	2.03 U	2.06 U	2.09 U F	2.01 U F, B	2.07 U F	2.01 U F, B	2.06 U F, B	2.06 U F, B	2.20 U F, B
6010C	7440-02-0	Nickel	mg/kg	11.4	12.9	13.7	7.15	10.7	10.5	10.8	9.38	18.8
6010C	9/7/7440	Potassium	mg/kg	3430 J Q	3660 J Q	2300 J Q	2190 J Q	3090 J Q	3800 J Q	2920 J Q	3210 J Q	4110 J Q
6010C	7440-23-5	Sodium	mg/kg	66.8 J Z	76.8 J Z	80.6 J Z	77.4 J Z	111	82.6 J Z	82.0 J Z	99.7 J Z	113
6010C	7440-31-5	Tin	mg/kg	10.2 U B	10.3 U B	10.5 U B	10.1 U B	10.4 U B	10.0 U B	10.3 U B	10.3 U B	11.0 U B
6010C	7440-32-6	Titanium	mg/kg	988	965	1290	713	1230	1100	1080	1170	1390
6010C	7440-36-0	Antimony	mg/kg	4.07 UJ Q	4.12 UJ Q	0.592 J Q, Z	1.18 J Q, Z	4.15 UJ Q	2.12 J Q, Z	2.08 J Q, Z	1.91 J Q, Z	2.55 J Q, Z
6010C	7440-38-2	Arsenic	mg/kg	4.23	3.64 J Z	5.65	1.55 J Z	4.67	2.48 J Z	3.18 J Z	2.31 J Z	4.63
6010C	7440-39-3	Barium	mg/kg	80.6	84.2	88.2	55.4	78.9	91.2	90.5	99.2	132
6010C	7440-41-7	Beryllium	mg/kg	1.02 U B	1.03 U B	0.740 J Z	0.378 J Z	0.573 J Z	0.650 J Z	0.673 J Z	0.579 J Z	1.01 J Z
6010C	7440-42-8	Boron	mg/kg	10.2 U	6.79 J Z	10.5 U B	3.37 J Z	10.4 U B	3.07 J Z	3.55 J Z	4.59 J Z	5.41 J Z
6010C	7440-43-9	Cadmium	mg/kg	1.02 U B	1.03 U B	0.0858 J Z	0.651 J Z	0.102 J Z	0.469 J Z	0.467 J Z	0.445 J Z	0.736 J Z
6010C	7440-47-3	Chromium	mg/kg	17.7	16.9	24.7	14.3	19.5	20.2	21.3	18.7	38.5
6010C	7440-48-4	Cobalt	mg/kg	4.98	5.08	6.86	3.82	5.21	6.07	6.51	6.2	10.5
6010C	7440-50-8	Copper	mg/kg	8.26	8.64	14.9	6.4	12.4	8.86	7.9	9.98	17
6010C	7440-62-2	Vanadium	mg/kg	35.8	36.4	47.9	22.7	39	38.4	36	39.6	69
6010C	7440-66-6	Zinc	mg/kg	60	67.5	56.1	48.7	53.1	59	53.9	66.1	69.6
6010C	7440-67-7	Zirconium	mg/kg	5.09 U	0.902 J Z	2.47 J Z	1.32 J Z	2.38 J Z	1.39 J Z	1.37 J Z	0.971 J Z	4.08 J Z
6010C	7440-70-2	Calcium	mg/kg	3670 J E	4940 J E	3820	2160	2570	2670	2990	3670	12600
6010C	7723-14-0	Phosphorus	mg/kg	426 J Q	445 J Q	267	308 J Q	384	412 J Q	363 J Q	419 J Q	386 J Q
6020A	7440-22-4	Silver	mg/kg	0.0846 J Z	0.0523 J Z	0.0582 J Z	0.0267 J Z	0.0854 J Z	0.0648 J Z	0.0625 J Z	0.0303 J Z	0.0406 J Z
6020A	7440-24-6	Strontium	mg/kg	15.8 J Q	23.4 J Q	12.1 J Q	12.8	14.7 J Q	18.9	19.7	20.4	42.8
6020A	7440-28-0	Thallium	mg/kg	0.23	0.188 J Z	0.255	0.138 J Z	0.235	0.263	0.273	0.256	0.349
6020A	7782-49-2	Selenium	mg/kg	0.117 J Z	0.134 J Z	0.202 J Z	0.402 U	0.152 J Z	0.401 U	0.413 U	0.413 U	0.161 J Z

U-Compound not detected above reporting limit
J-Result is an estimated value
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			Sample Name	SL-561-SA7-SB-0.0-0.5	SL-562-SA7-SB-0.0-0.5	SL-562-SA7-SB-2.0-3.0
			Sample Type	N	N	N
			Sample Date	04/16/2013	04/26/2013	04/26/2013
			SDG	PH032	PH040	PH040
			Start Depth	0	0	2
			End Depth	0.5	0.5	3
Analytic Method	CAS Number	Chemical Name	Unit			
6010C	7429-90-5	Aluminum	mg/kg	14300	12600	12100
6010C	7439-89-6	Iron	mg/kg	21400	20300	20500
6010C	7439-92-1	Lead	mg/kg	26	10.5 J E, Q	15.8 J E, Q
6010C	7439-93-2	Lithium	mg/kg	24.8	24.1	25.1
6010C	7439-95-4	Magnesium	mg/kg	4750	4410	4340
6010C	7439-96-5	Manganese	mg/kg	560	280	284
6010C	7439-98-7	Molybdenum	mg/kg	2.02 U F, B	2.03 U F	2.06 U F
6010C	7440-02-0	Nickel	mg/kg	11.4	9.24 J A	13.8 J A
6010C	9/7/7440	Potassium	mg/kg	3510 J Q	3300 J Q	3150 J Q
6010C	7440-23-5	Sodium	mg/kg	93.3 J Z	102 U F	103 U F
6010C	7440-31-5	Tin	mg/kg	10.1 U B	10.2 U B	10.3 U B
6010C	7440-32-6	Titanium	mg/kg	1150	1100	1100
6010C	7440-36-0	Antimony	mg/kg	1.73 J Q, Z	0.665 J Q, Z	0.557 J Q, Z
6010C	7440-38-2	Arsenic	mg/kg	2.59 J Z	4.38	4.22
6010C	7440-39-3	Barium	mg/kg	108	78	85.4
6010C	7440-41-7	Beryllium	mg/kg	0.562 J Z	0.491 J Z	0.487 J Z
6010C	7440-42-8	Boron	mg/kg	4.91 J Z	10.2 U F	10.3 U F
6010C	7440-43-9	Cadmium	mg/kg	0.581 J Z	0.270 J Z	0.399 J Z
6010C	7440-47-3	Chromium	mg/kg	19.9	16.5	18.6
6010C	7440-48-4	Cobalt	mg/kg	5.85	4.54 J E	4.50 J E
6010C	7440-50-8	Copper	mg/kg	9.12	12.5	11.6
6010C	7440-62-2	Vanadium	mg/kg	36	33.1	35.4
6010C	7440-66-6	Zinc	mg/kg	96.8	91.2	129
6010C	7440-67-7	Zirconium	mg/kg	5.05 U	2.87 J Z	2.56 J Z
6010C	7440-70-2	Calcium	mg/kg	4290	3400 J E	3250 J E
6010C	7723-14-0	Phosphorus	mg/kg	601 J Q	427 J E, A	370 J E, A
6020A	7440-22-4	Silver	mg/kg	0.0434 J Z	0.0337 J Z	0.0694 J Z
6020A	7440-24-6	Strontium	mg/kg	35	19.3	17.5
6020A	7440-28-0	Thallium	mg/kg	0.24	0.283	0.238
6020A	7782-49-2	Selenium	mg/kg	0.140 J Z	0.143 J Z	0.145 J Z

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			Sample Name	SL-500-SA7-SB-0.0-0.5	SL-501-SA7-SB-0.0-0.5	SL-502-SA7-SB-0.0-0.5	SL-503-SA7-SB-0.0-0.5	SL-504-SA7-SB-0.0-0.5	SL-504-SA7-SB-4.0-5.0	SL-505-SA7-SB-0.0-0.5	SL-506-SA7-SB-0.0-0.5	SL-507-SA7-SB-0.0-0.5
			Sample Type	N	N	N	N	N	N	N	N	N
			Sample Date	04/17/2013	04/17/2013	04/17/2013	04/22/2013	04/22/2013	04/22/2013	04/17/2013	04/25/2013	04/24/2013
			SDG	PH033	PH033	PH033	PH036	PH036	PH036	PH033	PH039	PH039
			Start Depth	0	0	0	0	0	4	0	0	0
			End Depth	0.5	0.5	0.5	0.5	0.5	5	0.5	0.5	0.5
Analytic Method	CAS Number	Chemical Name	Unit									
160.3M	MOIST	Moisture	%	2.2	1.6	3.3	2.3	3	5.5	2.9	3.7	3.6

U-Compound not detected above reporting limit
J-Result is an estimated value
R-Result is rejected if R qualifier is in first position. If R qualifier is after another qualifier, result is not rejected but qualified as estimated during validation

			Sample Name	SL-508-SA7-SB-0.0-0.5	SL-509-SA7-SB-0.0-0.5	SL-510-SA7-SB-0.0-0.5	SL-810-SA7-SB-0.0-0.5	SL-511-SA7-SB-0.0-0.5	SL-512-SA7-SB-0.0-0.5	SL-513-SA7-SB-0.0-0.5	SL-913-SA7-SB-0.0-0.5	SL-514-SA7-SB-0.0-0.5
			Sample Type	N	N	N	FD	N	N	N	FD	N
			Sample Date	04/25/2013	04/25/2013	04/22/2013	04/22/2013	04/19/2013	04/23/2013	06/04/2013	06/04/2013	06/06/2013
			SDG	PH039	PH039	PH036	PH036	PH035	PH037	PH046	PH046	PH049
			Start Depth	0	0	0	0	0	0	0	0	0
			End Depth	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Analytic Method	CAS Number	Chemical Name	Unit									
160.3M	MOIST	Moisture	%	1.1	3.4	3.7	3	4.4	2.5	1.8	1.5	1.1

U-Compound not detected above reporting limit
J-Result is an estimated value
R-Result is rejected if R qualifier is in first position. If R qualifier is after another qualifier, result is not rejected but qualified as estimated during validation

			Sample Name	SL-515-SA7-SB-0.0-0.5	SL-516-SA7-SB-0.0-0.5	SL-517-SA7-SB-0.0-0.5	SL-518-SA7-SB-0.0-0.5	SL-519-SA7-SB-0.0-0.5	SL-819-SA7-SB-0.0-0.5	SL-519-SA7-SB-2.0-3.0	SL-520-SA7-SB-0.0-0.5	SL-521-SA7-SB-0.0-0.5
			Sample Type	N	N	N	N	N	FD	N	N	N
			Sample Date	06/06/2013	06/04/2013	04/22/2013	04/19/2013	04/25/2013	04/25/2013	04/25/2013	04/19/2013	04/15/2013
			SDG	PH049	PH046	PH036	PH035	PH039	PH039	PH039	PH035	PH031
			Start Depth	0	0	0	0	0	0	2	0	0
			End Depth	0.5	0.5	0.5	0.5	0.5	0.5	3	0.5	0.5
Analytic Method	CAS Number	Chemical Name	Unit									
160.3M	MOIST	Moisture	%	1.4	3.9	2.1	2.4	2.4	4.3	3.4	2	1.8

U-Compound not detected above reporting limit
J-Result is an estimated value
R-Result is rejected if R qualifier is in first position. If R qualifier is after another qualifier, result is not rejected but qualified as estimated during validation

			Sample Name	SL-522-SA7-SB-0.0-0.5	SL-524-SA7-SB-0.0-0.5	SL-524-SA7-SB-1.0-2.0	SL-924-SA7-SB-1.0-2.0	SL-525-SA7-SB-0.0-0.5	SL-525-SA7-SB-4.0-5.0	SL-525-SA7-SB-6.5-7.5	SL-525-SA7-SB-9.5-10.5	SL-526-SA7-SB-0.0-0.5
			Sample Type	N	N	N	FD	N	N	N	N	N
			Sample Date	04/15/2013	06/04/2013	06/04/2013	06/04/2013	04/23/2013	06/03/2013	04/24/2013	06/03/2013	04/23/2013
			SDG	PH031	PH046	PH046	PH046	PH037	PH045	PH038	PH045	PH037
			Start Depth	0	0	1	1	0	4	6.5	9.5	0
			End Depth	0.5	0.5	2	2	0.5	5	7.5	10.5	0.5
Analytic Method	CAS Number	Chemical Name	Unit									
160.3M	MOIST	Moisture	%	3.6	7.1	7.5	7.7	4.1	4.1	4.9	3.7	9.5

U-Compound not detected above reporting limit
J-Result is an estimated value
R-Result is rejected if R qualifier is in first position. If R qualifier is after another qualifier, result is not rejected but qualified as estimated during validation

			Sample Name	SL-526-SA7-SB-3.5-4.5	SL-526-SA7-SB-9.0-10.0	SL-527-SA7-SB-0.0-0.5	SL-527-SA7-SB-2.5-3.5	SL-528-SA7-SB-0.0-0.5	SL-529-SA7-SB-0.0-0.5	SL-530-SA7-SB-0.0-0.5	SL-531-SA7-SB-0.0-0.5	SL-532-SA7-SB-0.0-0.5
			Sample Type	N	N	N	N	N	N	N	N	N
			Sample Date	04/23/2013	06/03/2013	04/24/2013	04/24/2013	04/24/2013	04/24/2013	04/18/2013	04/18/2013	04/18/2013
			SDG	PH037	PH045	PH038	PH038	PH038	PH038	PH034	PH034	PH034
			Start Depth	3.5	9	0	2.5	0	0	0	0	0
			End Depth	4.5	10	0.5	3.5	0.5	0.5	0.5	0.5	0.5
Analytic Method	CAS Number	Chemical Name	Unit									
160.3M	MOIST	Moisture	%	7.1	7.7	3.6	3.5	2.6	4.6	2.9	2.2	1.8

U-Compound not detected above reporting limit
J-Result is an estimated value
R-Result is rejected if R qualifier is in first position. If R qualifier is after another qualifier, result is not rejected but qualified as estimated during validation

			Sample Name	SL-532-SA7-SB-3.0-4.0	SL-533-SA7-SB-0.0-0.5	SL-533-SA7-SB-2.5-3.5	SL-534-SA7-SB-0.0-0.5	SL-534-SA7-SB-5.5-6.5	SL-535-SA7-SB-0.0-0.5	SL-535-SA7-SB-4.0-5.0	SL-535-SA7-SB-9.0-10.0	SL-536-SA7-SB-0.0-0.5
			Sample Type	N	N	N	N	N	N	N	N	N
			Sample Date	06/03/2013	04/18/2013	06/03/2013	04/12/2013	04/15/2013	04/12/2013	04/12/2013	04/12/2013	04/11/2013
			SDG	PH045	PH034	PH045	PH030	PH031	PH030	PH030	PH030	PH029
			Start Depth	3	0	2.5	0	5.5	0	4	9	0
			End Depth	4	0.5	3.5	0.5	6.5	0.5	5	10	0.5
Analytic Method	CAS Number	Chemical Name	Unit									
160.3M	MOIST	Moisture	%	4.1	3.6	3.7	3.7	4.6	2.7	4.1	4.4	1.6

U-Compound not detected above reporting limit
J-Result is an estimated value
R-Result is rejected if R qualifier is in first position. If R qualifier is after another qualifier, result is not rejected but qualified as estimated during validation

			Sample Name	SL-536-SA7-SB-3.0-4.0	SL-836-SA7-SB-3.0-4.0	SL-537-SA7-SB-0.0-0.5	SL-538-SA7-SB-0.0-0.5	SL-539-SA7-SB-0.0-0.5	SL-540-SA7-SB-0.0-0.5	SL-840-SA7-SB-0.0-0.5	SL-541-SA7-SB-0.0-0.5	SL-541-SA7-SB-2.0-3.0
			Sample Type	N	FD	N	N	N	N	FD	N	N
			Sample Date	04/12/2013	04/12/2013	04/15/2013	04/15/2013	04/08/2013	04/09/2013	04/09/2013	10/02/2013	10/02/2013
			SDG	PH030	PH030	PH031	PH031	PH027	PH027	PH027	PH121	PH121
			Start Depth	3	3	0	0	0	0	0	0	2
			End Depth	4	4	0.5	0.5	0.5	0.5	0.5	0.5	3
Analytic Method	CAS Number	Chemical Name	Unit									
160.3M	MOIST	Moisture	%	2.6	2.8	2.3	1.5	2.4	3.3	2.7	5.5	3

U-Compound not detected above reporting limit
J-Result is an estimated value
R-Result is rejected if R qualifier is in first position. If R qualifier is after another qualifier, result is not rejected but qualified as estimated during validation

			Sample Name	SL-542-SA7-SB-0.0-0.5	SL-543A-SA7-SB-0.0-0.5	SL-543B-SA7-SB-0.0-0.5	SL-543C-SA7-SB-0.0-0.5	SL-543D-SA7-SB-0.0-0.5	SL-544-SA7-SB-0.0-0.5	SL-545A-SA7-SB-0.0-0.5	SL-545B-SA7-SB-0.0-0.5
			Sample Type	N	N	N	N	N	N	N	N
			Sample Date	04/09/2013	04/25/2013	04/25/2013	04/25/2013	04/25/2013	04/09/2013	06/03/2013	06/03/2013
			SDG	PH027	PH040	PH040	PH040	PH040	PH027	PH046	PH046
			Start Depth	0	0	0	0	0	0	0	0
			End Depth	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Analytic Method	CAS Number	Chemical Name	Unit								
160.3M	MOIST	Moisture	%	2	2.1	2.2	2.5	1.8	2.3	4.3	6

U-Compound not detected above reporting limit
J-Result is an estimated value
R-Result is rejected if R qualifier is in first position. If R qualifier is after another qualifier, result is not rejected but qualified as estimated during validation

			Sample Name	SL-545C-SA7-SB-0.0-0.5	SL-546-SA7-SB-0.0-0.5	SL-547-SA7-SB-0.0-0.5	SL-548-SA7-SB-0.0-0.5	SL-549-SA7-SB-0.0-0.5	SL-551-SA7-SB-0.0-0.5	SL-551-SA7-SB-2.0-3.0	SL-552-SA7-SB-0.0-0.5	SL-553-SA7-SB-0.0-0.5
			Sample Type	N	N	N	N	N	N	N	N	N
			Sample Date	06/03/2013	04/09/2013	04/09/2013	04/10/2013	04/10/2013	04/10/2013	04/10/2013	04/10/2013	04/11/2013
			SDG	PH046	PH027	PH028	PH028	PH028	PH028	PH028	PH028	PH029
			Start Depth	0	0	0	0	0	0	2	0	0
			End Depth	0.5	0.5	0.5	0.5	0.5	0.5	3	0.5	0.5
Analytic Method	CAS Number	Chemical Name	Unit									
160.3M	MOIST	Moisture	%	3.8	1.6	2.2	1.6	1.9	3.2	3.8	3	1.1

U-Compound not detected above reporting limit
J-Result is an estimated value
R-Result is rejected if R qualifier is in first position. If R qualifier is after another qualifier, result is not rejected but qualified as estimated during validation

			Sample Name	SL-554-SA7-SB-0.0-0.5	SL-555-SA7-SB-0.0-0.5	SL-557-SA7-SB-0.0-0.5	SL-558-SA7-SB-0.0-0.5	SL-558-SA7-SB-3.0-4.0	SL-559-SA7-SB-0.0-0.5	SL-559-SA7-SB-2.0-3.0	SL-560-SA7-SB-0.0-0.5	SL-560-SA7-SB-3.0-4.0
			Sample Type	N	N	N	N	N	N	N	N	N
			Sample Date	04/11/2013	04/11/2013	04/17/2013	04/16/2013	04/17/2013	04/16/2013	04/16/2013	04/16/2013	04/16/2013
			SDG	PH029	PH029	PH033	PH032	PH033	PH032	PH032	PH032	PH032
			Start Depth	0	0	0	0	3	0	2	0	3
			End Depth	0.5	0.5	0.5	0.5	4	0.5	3	0.5	4
Analytic Method	CAS Number	Chemical Name	Unit									
160.3M	MOIST	Moisture	%	3.6	6.6	4.4	2.5	3.5	3.2	5	5	10.9

U-Compound not detected above reporting limit
J-Result is an estimated value
R-Result is rejected if R qualifier is in first position. If R qualifier is after another qualifier, result is not rejected but qualified as estimated during validation

			Sample Name	SL-561-SA7-SB-0.0-0.5	SL-562-SA7-SB-0.0-0.5	SL-562-SA7-SB-2.0-3.0
			Sample Type	N	N	N
			Sample Date	04/16/2013	04/26/2013	04/26/2013
			SDG	PH032	PH040	PH040
			Start Depth	0	0	2
			End Depth	0.5	0.5	3
Analytic Method	CAS Number	Chemical Name	Unit			
160.3M	MOIST	Moisture	%	3.9	3.6	2.9

U-Compound not detected above reporting limit
J-Result is an estimated value
R-Result is rejected if R qualifier is in first position. If R qualifier is after another qualifier, result is not rejected but qualified as estimated during validation

			Sample Name	SL-500-SA7-SB-0.0-0.5	SL-501-SA7-SB-0.0-0.5	SL-502-SA7-SB-0.0-0.5	SL-503-SA7-SB-0.0-0.5	SL-504-SA7-SB-0.0-0.5	SL-504-SA7-SB-4.0-5.0	SL-505-SA7-SB-0.0-0.5	SL-506-SA7-SB-0.0-0.5	SL-507-SA7-SB-0.0-0.5
			Sample Type	N	N	N	N	N	N	N	N	N
			Sample Date	04/17/2013	04/17/2013	04/17/2013	04/22/2013	04/22/2013	04/22/2013	04/17/2013	04/25/2013	04/24/2013
			SDG	PH033	PH033	PH033	PH036	PH036	PH036	PH033	PH039	PH039
			Start Depth	0	0	0	0	0	4	0	0	0
			End Depth	0.5	0.5	0.5	0.5	0.5	5	0.5	0.5	0.5
Analytic Method	CAS Number	Chemical Name	Unit									
8270D SIM	117-81-7	Bis(2-ethylhexyl)phthalate	µg/kg	7.2 J Z	18 U	12 J Z	8.4 J Z	190 U	6.6 J Z	13 J Z	7.8 J Z	9.9 J Z
8270D SIM	117-84-0	Di-n-octylphthalate	µg/kg	18 U	18 U	19 U	18 U	190 U	19 U	18 U	19 U	19 U
8270D SIM	120-12-7	Anthracene	µg/kg	1.7 U	0.83 J Z	0.92 J Z	0.45 J Z	17 U	1.8 U	0.71 J Z	0.41 J Z	1.7 U
8270D SIM	129-00-0	Pyrene	µg/kg	2.2	12	46	3.9	8.7 J Z	1.1 J Z	9.8	1.7	2.3
8270D SIM	131-11-3	Dimethylphthalate	µg/kg	18 U	18 U	19 U	18 U	190 U	19 U	18 U	19 U	19 U
8270D SIM	191-24-2	Benzo(g,h,i)perylene	µg/kg	0.86 J Z	2.7	8.3	0.92 J Z	17 U	0.74 J Z	3.1	1.7 U	0.94 J Z
8270D SIM	192-97-2	Benzo(e)pyrene	µg/kg	17 U	4.8 J Z	20	17 U	180 U	18 U	5.4 J Z	18 U	18 U
8270D SIM	193-39-5	Indeno(1,2,3-cd)pyrene	µg/kg	0.84 J Z	2.7	8.7	0.77 J Z	17 U	1.8 U	2.7	1.7 U	0.84 J Z
8270D SIM	205-99-2	Benzo(b)fluoranthene	µg/kg	2.8	12	58	3.2	8.7 J Z	1.8	17	2	2.8
8270D SIM	206-44-0	Fluoranthene	µg/kg	2.4	11	46	4.4	10 J Z	1.3 J Z	11	2	3.3
8270D SIM	207-08-9	Benzo(k)fluoranthene	µg/kg	4	8.3	23	5.3	52	12	11	8.4	8.5
8270D SIM	208-96-8	Acenaphthylene	µg/kg	1.7 U	1.7 U	1.7 U	1.7 U	17 U	1.8 U	1.7 U	1.7 U	1.7 U
8270D SIM	218-01-9	Chrysene	µg/kg	2.1	8.5	32	4	8.2 J Z	2.2	8.4	1.7	2.3
8270D SIM	50-32-8	Benzo(a)pyrene	µg/kg	1.2 J Z	7.5	29	1.3 J Z	17 U	0.85 J Z	5.8	0.82 J Z	1.3 J Z
8270D SIM	53-70-3	Dibenzo(a,h)anthracene	µg/kg	1.7 U	0.99 J Z	2.8	1.7 U	17 U	1.8 U	1.3 J Z	1.7 U	1.7 U
8270D SIM	56-55-3	Benzo(a)anthracene	µg/kg	0.90 J Z	6.3	35	1.1 J Z	17 U	1.8 U	4.8	0.71 J Z	1.1 J Z
8270D SIM	62-75-9	N-Nitrosodimethylamine	µg/kg	1.7 U	1.7 U	1.7 U	1.7 U	17 U	1.8 U	1.7 U	1.7 U	1.7 U
8270D SIM	83-32-9	Acenaphthene	µg/kg	1.7 U	1.7 U	1.7 U	1.7 U	17 U	1.8 U	1.7 U	1.7 U	1.7 U
8270D SIM	84-66-2	Diethylphthalate	µg/kg	18 U	18 U	19 U	18 U	190 U	19 U	18 U	19 U	19 U
8270D SIM	84-74-2	Di-n-butylphthalate	µg/kg	18 U	18 U	19 U	18 U	190 U	19 U	18 U	19 U	19 U
8270D SIM	85-01-8	Phenanthrene	µg/kg	1.1 J Z	4.2	5.2	5.6	17 U	0.84 J Z	3.9	1.7	1.7
8270D SIM	85-68-7	Butylbenzylphthalate	µg/kg	18 U	18 U	19 U	18 U	190 U	19 U	18 U	17 J Z	14 J Z
8270D SIM	86-73-7	Fluorene	µg/kg	1.7 U	1.7 U	1.7 U	1.7 U	17 U	0.86 J Z	1.4 J Z	1.7 U	1.7 U
8270D SIM	90-12-0	1-Methylnaphthalene	µg/kg	1.7 U	1.7 U	1.7 U	1.0 J Z	17 U	1.8 U	0.98 J Z	0.81 J Z	0.84 J Z
8270D SIM	91-20-3	Naphthalene	µg/kg	1.7 U	1.7 U	1.2 J Z	8.7	17 U	1.8 U	2.3	1.8	0.97 J Z
8270D SIM	91-57-6	2-Methylnaphthalene	µg/kg	1.7 U	1.7 U	0.75 J Z	1.6 J Z	17 U	1.8 U	1.6 J Z	1.2 J Z	1.4 J Z

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J-Result is an estimated value
R-Result is rejected if R qualifier is in first position. If R qualifier is after another qualifier, result is not rejected but qualified as estimated during validation

			Sample Name	SL-508-SA7-SB-0.0-0.5	SL-509-SA7-SB-0.0-0.5	SL-510-SA7-SB-0.0-0.5	SL-810-SA7-SB-0.0-0.5	SL-511-SA7-SB-0.0-0.5	SL-512-SA7-SB-0.0-0.5	SL-513-SA7-SB-0.0-0.5	SL-913-SA7-SB-0.0-0.5	SL-514-SA7-SB-0.0-0.5
			Sample Type	N	N	N	FD	N	N	N	FD	N
			Sample Date	04/25/2013	04/25/2013	04/22/2013	04/22/2013	04/19/2013	04/23/2013	06/04/2013	06/04/2013	06/06/2013
			SDG	PH039	PH039	PH036	PH036	PH035	PH037	PH046	PH046	PH049
			Start Depth	0	0	0	0	0	0	0	0	0
			End Depth	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Analytic Method	CAS Number	Chemical Name	Unit									
8270D SIM	117-81-7	Bis(2-ethylhexyl)phthalate	µg/kg	8.9 J Z	610	7.3 J FD, Z	76 J FD	31	18 U	180 U	180 U	180 U
8270D SIM	117-84-0	Di-n-octylphthalate	µg/kg	18 U	19 U	19 U	19 U	19 U	18 U	180 U	180 U	180 U
8270D SIM	120-12-7	Anthracene	µg/kg	0.64 J Z	0.60 J Z	1.7 U	1.7 U	0.73 J Z	1.7 U	17 U	17 U	17 U
8270D SIM	129-00-0	Pyrene	µg/kg	7.8	4.2	3.4 J FD	1.8 J FD	7.3	0.99 J Z	7.5 J Z	8.4 J Z	17 U
8270D SIM	131-11-3	Dimethylphthalate	µg/kg	18 U	19 U	19 U	19 U	19 U	18 U	180 U	180 U	180 U
8270D SIM	191-24-2	Benzo(g,h,i)perylene	µg/kg	3.6	2.3	1.4 J FD, Z	0.83 J FD, Z	3	1.7 U	17 U	17 U	17 U
8270D SIM	192-97-2	Benzo(e)pyrene	µg/kg	7.4 J Z	4.5 J Z	18 U	18 U	4.2 J Z	17 U	170 U	170 U	170 U
8270D SIM	193-39-5	Indeno(1,2,3-cd)pyrene	µg/kg	3.1	1.8	2.0 J FD	0.69 J FD, Z	1.9	1.7 U	17 U	17 U	17 U
8270D SIM	205-99-2	Benzo(b)fluoranthene	µg/kg	12	6.3	5.0 J FD	2.4 J FD	9.3	1.1 J Z	18	13 J Z	17 U
8270D SIM	206-44-0	Fluoranthene	µg/kg	9.3	5.4	4.1 J FD	2.1 J FD	7.6	1.0 J Z	7.0 J Z	8.3 J Z	6.8 J Z
8270D SIM	207-08-9	Benzo(k)fluoranthene	µg/kg	5.7	2	9.4	8.5	19	1.7 U	17 U	17 U	17 U
8270D SIM	208-96-8	Acenaphthylene	µg/kg	1.0 J Z	0.46 J Z	1.7 U	1.7 U	1.7 U	1.7 U	17 U	17 U	17 U
8270D SIM	218-01-9	Chrysene	µg/kg	7.6	4.7	2.9	1.9	6.7	0.90 J Z	23	20	5.1 J Z
8270D SIM	50-32-8	Benzo(a)pyrene	µg/kg	6.4	2.9	1.8 J FD	1.0 J FD, Z	3.5	1.7 U	17 U	17 U	17 U
8270D SIM	53-70-3	Dibenzo(a,h)anthracene	µg/kg	1.3 J Z	1.1 J Z	1.7 U	1.7 U	1.2 J Z	1.7 U	17 U	17 U	17 U
8270D SIM	56-55-3	Benzo(a)anthracene	µg/kg	5.1	2.5	1.3 J FD, Z	0.74 J FD, Z	3.3	1.7 U	17 U	17 U	17 U
8270D SIM	62-75-9	N-Nitrosodimethylamine	µg/kg	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	17 U	17 U	17 U
8270D SIM	83-32-9	Acenaphthene	µg/kg	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	17 U	17 U	17 U
8270D SIM	84-66-2	Diethylphthalate	µg/kg	18 U	19 U	19 U	19 U	19 U	18 U	180 U	180 U	180 U
8270D SIM	84-74-2	Di-n-butylphthalate	µg/kg	18 U	19 U	19 U	19 U	19 U	18 U	180 U	180 U	180 U
8270D SIM	85-01-8	Phenanthrene	µg/kg	2.1	2.5	1.9	1.3 J Z	5.4	1.7 U	17 U	17 U	17 U
8270D SIM	85-68-7	Butylbenzylphthalate	µg/kg	18 U	17 J Z	19 U	19 U	19 U	18 U	180 U	180 U	180 U
8270D SIM	86-73-7	Fluorene	µg/kg	1.7 U	1.9	1.7 UJ FD	0.69 J FD, Z	0.98 J Z	1.7 U	17 U	17 U	17 U
8270D SIM	90-12-0	1-Methylnaphthalene	µg/kg	0.75 J Z	1.1 J Z	1.7 U	1.7 U	1.6 J Z	1.7 U	17 U	17 U	17 U
8270D SIM	91-20-3	Naphthalene	µg/kg	6	2.5	0.93 J Z	1.2 J Z	3.9	1.7 U	17 U	17 U	17 U
8270D SIM	91-57-6	2-Methylnaphthalene	µg/kg	1.4 J Z	1.7	1.7 U	1.7 U	2.2	1.7 U	17 U	17 U	17 U

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			Sample Name	SL-515-SA7-SB-0.0-0.5	SL-516-SA7-SB-0.0-0.5	SL-517-SA7-SB-0.0-0.5	SL-518-SA7-SB-0.0-0.5	SL-519-SA7-SB-0.0-0.5	SL-819-SA7-SB-0.0-0.5	SL-519-SA7-SB-2.0-3.0	SL-520-SA7-SB-0.0-0.5	SL-521-SA7-SB-0.0-0.5
			Sample Type	N	N	N	N	N	FD	N	N	N
			Sample Date	06/06/2013	06/04/2013	04/22/2013	04/19/2013	04/25/2013	04/25/2013	04/25/2013	04/19/2013	04/15/2013
			SDG	PH049	PH046	PH036	PH035	PH039	PH039	PH039	PH035	PH031
			Start Depth	0	0	0	0	0	0	2	0	0
			End Depth	0.5	0.5	0.5	0.5	0.5	0.5	3	0.5	0.5
Analytic Method	CAS Number	Chemical Name	Unit									
8270D SIM	117-81-7	Bis(2-ethylhexyl)phthalate	µg/kg	19	19 U	150 J Z	180 U	21	14 J Z	10 J Z	10 J Z	8.4 J Z
8270D SIM	117-84-0	Di-n-octylphthalate	µg/kg	18 U	19 U	180 U	180 U	18 U	19 U	19 U	18 U	18 U
8270D SIM	120-12-7	Anthracene	µg/kg	1.7 U	1.7 U	17 U	17 U	0.52 J Z	0.59 J Z	0.68 J Z	1.7 U	1.0 J Z
8270D SIM	129-00-0	Pyrene	µg/kg	1.7 U	1.7 U	10 J Z	7.7 J Z	7.9 J Q	5	9.1	1.6 J Z	8.1
8270D SIM	131-11-3	Dimethylphthalate	µg/kg	18 U	19 U	180 U	180 U	18 U	19 U	19 U	18 U	18 U
8270D SIM	191-24-2	Benzo(g,h,i)perylene	µg/kg	1.7 U	1.7 U	17 U	17 U	2.8 J FD, Q	1.4 J FD, Z	1.8	1.1 J Z	1.3 J Z
8270D SIM	192-97-2	Benzo(e)pyrene	µg/kg	17 U	18 U	170 U	170 U	5.5 J FD, Q, Z	18 UJ FD	4.1 J Z	17 U	17 U
8270D SIM	193-39-5	Indeno(1,2,3-cd)pyrene	µg/kg	1.7 U	1.7 U	17 U	17 U	2.5 J FD, Q	1.4 J FD, Z	2	0.86 J Z	1.1 J Z
8270D SIM	205-99-2	Benzo(b)fluoranthene	µg/kg	1.7 U	1.7 U	14 J Z	13 J Z	13 J FD, Q	5.9 J FD	9.4	2.4	6.4
8270D SIM	206-44-0	Fluoranthene	µg/kg	1.7 U	1.7 U	11 J Z	7.7 J Z	9.1 J Q	5.8	9.4	1.6 J Z	11
8270D SIM	207-08-9	Benzo(k)fluoranthene	µg/kg	1.7 U	1.7 U	8.6 J Z	14 J Z	9.1 J FD	2.4 J FD	3.9	7.6	2.7
8270D SIM	208-96-8	Acenaphthylene	µg/kg	1.7 U	1.7 U	17 U	17 U	0.39 J FD, Z	1.7 UJ FD	1.7 U	1.7 U	1.7 U
8270D SIM	218-01-9	Chrysene	µg/kg	0.34 J Z	1.7 U	9.1 J Z	7.5 J Z	9.0 J FD, Q	5.0 J FD	7.9	1.9	7.6
8270D SIM	50-32-8	Benzo(a)pyrene	µg/kg	1.7 U	1.7 U	17 U	17 U	5.0 J FD, Q	2.7 J FD	5.4	1.1 J Z	1.1 J Z
8270D SIM	53-70-3	Dibenzo(a,h)anthracene	µg/kg	1.7 U	1.7 U	17 U	17 U	1.0 J FD, Z	1.7 UJ FD	1.7 U	1.7 U	1.7 U
8270D SIM	56-55-3	Benzo(a)anthracene	µg/kg	1.7 U	1.7 U	17 U	17 U	4.5 J Q	2.8	5.9	1.7 U	1.5 J Z
8270D SIM	62-75-9	N-Nitrosodimethylamine	µg/kg	1.7 U	1.7 U	17 U	17 U	1.7 U	1.7 U	1.7 U	1.7 U	3.2
8270D SIM	83-32-9	Acenaphthene	µg/kg	1.7 U	1.7 U	17 U	17 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U
8270D SIM	84-66-2	Diethylphthalate	µg/kg	18 U	19 U	180 U	180 U	18 U	19 U	19 U	18 U	18 U
8270D SIM	84-74-2	Di-n-butylphthalate	µg/kg	18 U	19 U	180 U	180 U	18 U	19 U	19 U	18 U	18 U
8270D SIM	85-01-8	Phenanthrene	µg/kg	1.7 U	1.7 U	14 J Z	17 U	3.1	3.3	2.9	0.91 J Z	5.9
8270D SIM	85-68-7	Butylbenzylphthalate	µg/kg	18 U	19 U	180 U	180 U	18 U	19 U	19 U	14 J Z	18 U
8270D SIM	86-73-7	Fluorene	µg/kg	1.7 U	1.7 U	17 U	17 U	3.9	3.5	2.3	1.7 U	1.7 U
8270D SIM	90-12-0	1-Methylnaphthalene	µg/kg	1.7 U	1.7 U	17 U	17 U	0.88 J Z	1.1 J Z	1.7 U	1.7 U	1.7 U
8270D SIM	91-20-3	Naphthalene	µg/kg	1.7 U	1.7 U	8.6 J Z	17 U	1.5 J Z	2.1	0.95 J Z	1.7 U F	1.7 U
8270D SIM	91-57-6	2-Methylnaphthalene	µg/kg	1.7 U	1.7 U	13 J Z	17 U	1.5 J Z	1.8	0.96 J Z	1.7 U	1.7 U

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			Sample Name	SL-522-SA7-SB-0.0-0.5	SL-524-SA7-SB-0.0-0.5	SL-524-SA7-SB-1.0-2.0	SL-924-SA7-SB-1.0-2.0	SL-525-SA7-SB-0.0-0.5	SL-525-SA7-SB-4.0-5.0	SL-525-SA7-SB-6.5-7.5	SL-525-SA7-SB-9.5-10.5
			Sample Type	N	N	N	FD	N	N	N	N
			Sample Date	04/15/2013	06/04/2013	06/04/2013	06/04/2013	04/23/2013	06/03/2013	04/24/2013	06/03/2013
			SDG	PH031	PH046	PH046	PH046	PH037	PH045	PH038	PH045
			Start Depth	0	0	1	1	0	4	6.5	9.5
			End Depth	0.5	0.5	2	2	0.5	5	7.5	10.5
Analytic Method	CAS Number	Chemical Name	Unit								
8270D SIM	117-81-7	Bis(2-ethylhexyl)phthalate	µg/kg	19	7.8 J Z	19 U	20 U	11 J Z	19 U	19 U	19 U
8270D SIM	117-84-0	Di-n-octylphthalate	µg/kg	19 U	19 U	19 U	20 U	19 U	19 U	19 U	19 U
8270D SIM	120-12-7	Anthracene	µg/kg	1.6 J Z	0.63 J Z	1.8 U	1.8 U	0.50 J Z	1.7 U	1.8 U	1.7 U
8270D SIM	129-00-0	Pyrene	µg/kg	13	8.9	2.5 J FD, Q	4.6 J FD	2.9	1.7 U	1.8 U	1.7 U
8270D SIM	131-11-3	Dimethylphthalate	µg/kg	19 U	19 U	19 U	20 U	19 U	19 U	19 U	19 U
8270D SIM	191-24-2	Benzo(g,h,i)perylene	µg/kg	1.7	1.9	1.3 J Z	1.0 J Z	1.4 J Z	1.7 U	1.8 U	1.7 U
8270D SIM	192-97-2	Benzo(e)pyrene	µg/kg	3.5 J Z	13 J Z	6.5 J Q, Z	8.0 J Z	18 U	18 U	18 U	18 U
8270D SIM	193-39-5	Indeno(1,2,3-cd)pyrene	µg/kg	1.4 J Z	1.1 J Z	1.8 U	1.8 U	1.5 J Z	1.7 U	1.8 U	1.7 U
8270D SIM	205-99-2	Benzo(b)fluoranthene	µg/kg	7.8	8	2.5	3.7	4.1	1.7 U	1.0 J Z	1.7 U
8270D SIM	206-44-0	Fluoranthene	µg/kg	16	3.1	0.96 J Z	1.1 J Z	3.7	1.7 U	0.79 J Z	1.7 U
8270D SIM	207-08-9	Benzo(k)fluoranthene	µg/kg	2.5	1.9	1.8 UJ FD	1.8 J FD	1.6 J Z	1.7 U	3.9	1.7 U
8270D SIM	208-96-8	Acenaphthylene	µg/kg	0.40 J Z	1.8 U	1.8 U	1.8 U	1.7 U	1.7 U	1.8 U	1.7 U
8270D SIM	218-01-9	Chrysene	µg/kg	9.3	20	7.2 J Q	8.6	3.5	0.43 J Z	0.72 J Z	1.7 U
8270D SIM	50-32-8	Benzo(a)pyrene	µg/kg	2.1	3.7	1.5 J Z	1.7 J Z	1.6 J Z	1.7 U	1.8 U	1.7 U
8270D SIM	53-70-3	Dibenzo(a,h)anthracene	µg/kg	1.7 U	1.1 J Z	0.75 J FD, Z	1.8 UJ FD	1.7 U	1.7 U	1.8 U	1.7 U
8270D SIM	56-55-3	Benzo(a)anthracene	µg/kg	2.7	4.3	1.5 J Q, Z	1.3 J Z	1.1 J Z	1.7 U	1.8 U	1.7 U
8270D SIM	62-75-9	N-Nitrosodimethylamine	µg/kg	1.7 U	1.8 U	1.8 U	1.8 U	1.7 U	1.7 U	1.8 U	1.7 U
8270D SIM	83-32-9	Acenaphthene	µg/kg	1.7 U	1.8 U	1.8 U	1.8 U	1.7 U	1.7 U	1.8 U	1.7 U
8270D SIM	84-66-2	Diethylphthalate	µg/kg	19 U	19 U	19 U	20 U	19 U	19 U	19 U	19 U
8270D SIM	84-74-2	Di-n-butylphthalate	µg/kg	19 U	19 U	19 U	20 U	19 U	19 U	19 U	19 U
8270D SIM	85-01-8	Phenanthrene	µg/kg	14	16	4.1 J Q	3.7	2	1.7 U	1.8 U	1.7 U
8270D SIM	85-68-7	Butylbenzylphthalate	µg/kg	19 U	19 U	19 U	20 U	19 U	19 U	7.9 J Z	19 U
8270D SIM	86-73-7	Fluorene	µg/kg	1.2 J Z	1.8 U	1.8 U	1.8 U	2.6	1.7 U	0.98 J Z	1.7 U
8270D SIM	90-12-0	1-Methylnaphthalene	µg/kg	0.94 J Z	1.7 J Z	1.8 U	1.8 U	1.7 U	1.7 U	0.73 J Z	1.7 U
8270D SIM	91-20-3	Naphthalene	µg/kg	2.6	1.8 U	1.8 U	1.8 U	0.96 J Z	1.3 J Z	1.8 U	1.0 J Z
8270D SIM	91-57-6	2-Methylnaphthalene	µg/kg	1.5 J Z	2	1.8 U	1.8 U	0.81 J Z	1.7 U	0.99 J Z	1.7 U

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			Sample Name	SL-526-SA7-SB-0.0-0.5	SL-526-SA7-SB-3.5-4.5	SL-526-SA7-SB-9.0-10.0	SL-527-SA7-SB-0.0-0.5	SL-527-SA7-SB-2.5-3.5	SL-528-SA7-SB-0.0-0.5	SL-529-SA7-SB-0.0-0.5	SL-530-SA7-SB-0.0-0.5
			Sample Type	N	N	N	N	N	N	N	N
			Sample Date	04/23/2013	04/23/2013	06/03/2013	04/24/2013	04/24/2013	04/24/2013	04/24/2013	04/18/2013
			SDG	PH037	PH037	PH045	PH038	PH038	PH038	PH038	PH034
			Start Depth	0	3.5	9	0	2.5	0	0	0
			End Depth	0.5	4.5	10	0.5	3.5	0.5	0.5	0.5
Analytic Method	CAS Number	Chemical Name	Unit								
8270D SIM	117-81-7	Bis(2-ethylhexyl)phthalate	µg/kg	36	19 U	20 U	22	19 U	18 U	6.7 J Z	48
8270D SIM	117-84-0	Di-n-octylphthalate	µg/kg	20 U	19 U	20 U	19 U	19 U	18 U	19 U	18 U
8270D SIM	120-12-7	Anthracene	µg/kg	1.8 U	1.8 U	1.8 U	0.42 J Z	1.7 U	1.7 U	1.7 U	1.7 U
8270D SIM	129-00-0	Pyrene	µg/kg	2	1.8 U	1.8 U	2.6	1.7 U	1.7 U	0.96 J Z	3.3
8270D SIM	131-11-3	Dimethylphthalate	µg/kg	20 U	19 U	20 U	19 U	19 U	18 U	19 U	18 U
8270D SIM	191-24-2	Benzo(g,h,i)perylene	µg/kg	0.94 J Z	1.8 U	1.8 U	1.2 J Z	1.7 U	1.7 U	1.7 U	1.5 J Z
8270D SIM	192-97-2	Benzo(e)pyrene	µg/kg	19 U	18 U	18 U	18 U	18 U	17 U	18 U	17 U
8270D SIM	193-39-5	Indeno(1,2,3-cd)pyrene	µg/kg	1.0 J Z	1.8 U	1.8 U	1.4 J Z	1.7 U	1.7 U	1.7 U	1.2 J Z
8270D SIM	205-99-2	Benzo(b)fluoranthene	µg/kg	1.9	1.8 U	1.8 U	3.8	1.7 U	1.7 U	1.2 J Z	4.5
8270D SIM	206-44-0	Fluoranthene	µg/kg	2.3	1.8 U	1.8 U	4.3	1.7 U	1.7 U	1.2 J Z	3.4
8270D SIM	207-08-9	Benzo(k)fluoranthene	µg/kg	0.75 J Z	1.8 U	1.8 U	13	0.77 J Z	1.7 U	7.2	6.8
8270D SIM	208-96-8	Acenaphthylene	µg/kg	1.8 U	1.8 U	1.8 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U
8270D SIM	218-01-9	Chrysene	µg/kg	1.9	1.8 U	1.8 U	3.2	1.7 U	1.7 U	1.0 J Z	2.9
8270D SIM	50-32-8	Benzo(a)pyrene	µg/kg	0.86 J Z	1.8 U	1.8 U	1.6 J Z	1.7 U	1.7 U	1.7 U	1.9
8270D SIM	53-70-3	Dibenzo(a,h)anthracene	µg/kg	1.8 U	1.8 U	1.8 U	0.90 J Z	1.7 U	1.7 U	1.7 U	1.7 U
8270D SIM	56-55-3	Benzo(a)anthracene	µg/kg	0.88 J Z	1.8 U	1.8 U	1.2 J Z	1.7 U	1.7 U	1.7 U	1.4 J Z
8270D SIM	62-75-9	N-Nitrosodimethylamine	µg/kg	0.81 J Z	1.8 U	1.8 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U
8270D SIM	83-32-9	Acenaphthene	µg/kg	1.8 U	1.8 U	1.8 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U
8270D SIM	84-66-2	Diethylphthalate	µg/kg	20 U	19 U	20 U	19 U	19 U	18 U	19 U	18 U
8270D SIM	84-74-2	Di-n-butylphthalate	µg/kg	20 U	19 U	20 U	19 U	19 U	18 U	19 U	18 U
8270D SIM	85-01-8	Phenanthrene	µg/kg	1.4 J Z	1.8 U	1.8 U	2.3	1.7 U	1.7 U	1.7 U	1.8
8270D SIM	85-68-7	Butylbenzylphthalate	µg/kg	20 U	19 U	20 U	19	19 U	18 U	9.0 J Z	18 U
8270D SIM	86-73-7	Fluorene	µg/kg	1.3 J Z	1.8 U	1.8 U	1.7	1.7 U	1.7 U	1.1 J Z	1.7 U
8270D SIM	90-12-0	1-Methylnaphthalene	µg/kg	1.8 U	1.8 U	1.8 U	1.1 J Z	1.7 U	1.1 J Z	0.96 J Z	1.7 U
8270D SIM	91-20-3	Naphthalene	µg/kg	1.2 J Z	1.8 U	1.8 U	1.6 J Z	1.7 U	1.7 U F	1.0 J Z	1.7 U
8270D SIM	91-57-6	2-Methylnaphthalene	µg/kg	1.8 U	1.8 U	1.8 U	1.9	1.7 U	1.8	1.4 J Z	1.7 U

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			Sample Name	SL-531-SA7-SB-0.0-0.5	SL-532-SA7-SB-0.0-0.5	SL-532-SA7-SB-3.0-4.0	SL-533-SA7-SB-0.0-0.5	SL-533-SA7-SB-2.5-3.5	SL-534-SA7-SB-0.0-0.5	SL-534-SA7-SB-5.5-6.5	SL-535-SA7-SB-0.0-0.5	SL-535-SA7-SB-4.0-5.0
			Sample Type	N	N	N	N	N	N	N	N	N
			Sample Date	04/18/2013	04/18/2013	06/03/2013	04/18/2013	06/03/2013	04/12/2013	04/15/2013	04/12/2013	04/12/2013
			SDG	PH034	PH034	PH045	PH034	PH045	PH030	PH031	PH030	PH030
			Start Depth	0	0	3	0	2.5	0	5.5	0	4
			End Depth	0.5	0.5	4	0.5	3.5	0.5	6.5	0.5	5
Analytic Method	CAS Number	Chemical Name	Unit									
8270D SIM	117-81-7	Bis(2-ethylhexyl)phthalate	µg/kg	18 U	18 U	7.5 J Z	6.5 J Z	19 U	9.3 J Z	8.0 J Z	6.3 J Z	19 U
8270D SIM	117-84-0	Di-n-octylphthalate	µg/kg	18 U	18 U	19 U	19 U	19 U	19 U	19 U	18 U	19 U
8270D SIM	120-12-7	Anthracene	µg/kg	1.7 U	0.40 J Z	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U
8270D SIM	129-00-0	Pyrene	µg/kg	1.4 J Z	0.80 J Z	1.7 U	1.5 J Z	1.7 U	1.7	1.7 U	1.2 J Z	1.7 U
8270D SIM	131-11-3	Dimethylphthalate	µg/kg	18 U	18 U	19 U	19 U	19 U	19 U	19 U	18 U	19 U
8270D SIM	191-24-2	Benzo(g,h,i)perylene	µg/kg	0.86 J Z	1.7 U	1.7 U	0.82 J Z	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U
8270D SIM	192-97-2	Benzo(e)pyrene	µg/kg	17 U	17 U	18 U	18 U	18 U	18 U	18 U	17 U	18 U
8270D SIM	193-39-5	Indeno(1,2,3-cd)pyrene	µg/kg	0.86 J Z	1.7 U	1.7 U	0.77 J Z	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U
8270D SIM	205-99-2	Benzo(b)fluoranthene	µg/kg	1.4 J Z	1.7 U	1.7 U	1.9	1.7 U	1.4 J Z	1.7 U	1.2 J Z	1.7 U
8270D SIM	206-44-0	Fluoranthene	µg/kg	1.5 J Z	0.96 J Z	0.75 J Z	1.8	1.7 U	1.8	1.7 U	1.1 J Z	1.7 U
8270D SIM	207-08-9	Benzo(k)fluoranthene	µg/kg	4.4	1.7 U	1.7 U	8.7	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U
8270D SIM	208-96-8	Acenaphthylene	µg/kg	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U
8270D SIM	218-01-9	Chrysene	µg/kg	1.4 J Z	0.61 J Z	0.58 J Z	1.6 J Z	1.7 U	1.5 J Z	1.7 U	1.1 J Z	1.7 U
8270D SIM	50-32-8	Benzo(a)pyrene	µg/kg	1.7 U	1.7 U	1.7 U	1.0 J Z	1.7 U	0.91 J Z	1.7 U	1.7 U	1.7 U
8270D SIM	53-70-3	Dibenzo(a,h)anthracene	µg/kg	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U
8270D SIM	56-55-3	Benzo(a)anthracene	µg/kg	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U
8270D SIM	62-75-9	N-Nitrosodimethylamine	µg/kg	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U
8270D SIM	83-32-9	Acenaphthene	µg/kg	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U
8270D SIM	84-66-2	Diethylphthalate	µg/kg	18 U	18 U	19 U	19 U	19 U	19 U	19 U	18 U	19 U
8270D SIM	84-74-2	Di-n-butylphthalate	µg/kg	18 U	18 U	19 U	19 U	19 U	19 U	19 U	18 U	19 U
8270D SIM	85-01-8	Phenanthrene	µg/kg	1.3 J Z	1.5 J Z	1.7 U	0.95 J Z	1.7 U	1.1 J Z	1.7 U	0.76 J Z	1.7 U
8270D SIM	85-68-7	Butylbenzylphthalate	µg/kg	18 U	18 U	19 U	12 J Z	19 U	19 U	19 U	18 U	19 U
8270D SIM	86-73-7	Fluorene	µg/kg	1.7 U	1.7 U	1.7 U	0.86 J Z	1.7 U	1.4 J Z	1.7 U	0.79 J Z	1.7 U
8270D SIM	90-12-0	1-Methylnaphthalene	µg/kg	0.90 J Z	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U
8270D SIM	91-20-3	Naphthalene	µg/kg	1.1 J Z	0.92 J Z	1.0 J Z	1.1 J Z	1.1 J Z	1.7 U F	1.7 U	1.7 U	1.7 U
8270D SIM	91-57-6	2-Methylnaphthalene	µg/kg	0.87 J Z	1.7 U	1.7 U	0.86 J Z	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U

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			Sample Name	SL-535-SA7-SB-9.0-10.0	SL-536-SA7-SB-0.0-0.5	SL-536-SA7-SB-3.0-4.0	SL-836-SA7-SB-3.0-4.0	SL-537-SA7-SB-0.0-0.5	SL-538-SA7-SB-0.0-0.5	SL-539-SA7-SB-0.0-0.5	SL-540-SA7-SB-0.0-0.5
			Sample Type	N	N	N	FD	N	N	N	N
			Sample Date	04/12/2013	04/11/2013	04/12/2013	04/12/2013	04/15/2013	04/15/2013	04/08/2013	04/09/2013
			SDG	PH030	PH029	PH030	PH030	PH031	PH031	PH027	PH027
			Start Depth	9	0	3	3	0	0	0	0
			End Depth	10	0.5	4	4	0.5	0.5	0.5	0.5
Analytic Method	CAS Number	Chemical Name	Unit								
8270D SIM	117-81-7	Bis(2-ethylhexyl)phthalate	µg/kg	19 U	10 J Z	18 U	18 U	32	18 U	180 U	15 J Z
8270D SIM	117-84-0	Di-n-octylphthalate	µg/kg	19 U	18 U	18 U	18 U	18 U	18 U	180 U	19 U
8270D SIM	120-12-7	Anthracene	µg/kg	1.7 U	0.41 J Z	1.7 U	1.7 U	1.7 U	0.50 J Z	6.0 J Z	1.7 U
8270D SIM	129-00-0	Pyrene	µg/kg	1.7 U	11	2.6 J Q	3.8	3.1	9.6	64	1.5 J Z
8270D SIM	131-11-3	Dimethylphthalate	µg/kg	19 U	18 U	18 U	18 U	18 U	18 U	180 U	19 U
8270D SIM	191-24-2	Benzo(g,h,i)perylene	µg/kg	1.7 U	3	1.1 J Z	1.7	1.6 J Z	3.7	17 U	0.98 J Z
8270D SIM	192-97-2	Benzo(e)pyrene	µg/kg	18 U	4.3 J Z	17 U	17 U	17 U	3.9 J Z	170 U	18 UJ Q
8270D SIM	193-39-5	Indeno(1,2,3-cd)pyrene	µg/kg	1.7 U	2.4	0.91 J Z	1.3 J Z	0.97 J Z	3.1	17 U	1.7 U
8270D SIM	205-99-2	Benzo(b)fluoranthene	µg/kg	1.7 U	9.9	2.1	3.5	3	8.8	11 J Z	1.4 J Z
8270D SIM	206-44-0	Fluoranthene	µg/kg	1.7 U	10	2.4	3.5	2.5	8.2	82	1.4 J Z
8270D SIM	207-08-9	Benzo(k)fluoranthene	µg/kg	1.7 U	3.2	0.89 J Z	1.0 J Z	1.4 J Z	3.2	17 U	1.7 U
8270D SIM	208-96-8	Acenaphthylene	µg/kg	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	17 U	1.7 U
8270D SIM	218-01-9	Chrysene	µg/kg	1.7 U	7	1.8	2.6	2.8	6.4	22	1.6 J Z
8270D SIM	50-32-8	Benzo(a)pyrene	µg/kg	1.7 U	4.4	1.2 J Z	1.5 J Z	1.5 J Z	4.4	17 U	0.74 J Z
8270D SIM	53-70-3	Dibenzo(a,h)anthracene	µg/kg	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	0.89 J Z	17 U	1.7 U
8270D SIM	56-55-3	Benzo(a)anthracene	µg/kg	1.7 U	2.3	0.98 J Z	0.91 J Z	1.1 J Z	3.4	17 U	1.7 UJ FD
8270D SIM	62-75-9	N-Nitrosodimethylamine	µg/kg	1.7 U	1.7 U	1.7 U	1.7 U	3.4	1.7 U	17 U	1.7 U
8270D SIM	83-32-9	Acenaphthene	µg/kg	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	17 U	1.7 U
8270D SIM	84-66-2	Diethylphthalate	µg/kg	19 U	18 U	18 U	18 U	18 U	18 U	180 U	19 U
8270D SIM	84-74-2	Di-n-butylphthalate	µg/kg	19 U	7.6 J Z	18 U	18 U	18 U	18 U	180 U	19 U
8270D SIM	85-01-8	Phenanthrene	µg/kg	1.7 U	5.8	1.2 J Z	2	2.1	4.8	63	0.77 J Z
8270D SIM	85-68-7	Butylbenzylphthalate	µg/kg	19 U	18 U	18 U	18 U	18 U	18 U	180 U	6.7 J Z
8270D SIM	86-73-7	Fluorene	µg/kg	1.7 U	0.72 J Z	1.7 U	1.7 U	1.7 U	0.79 J Z	17 U	1.7 U
8270D SIM	90-12-0	1-Methylnaphthalene	µg/kg	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	17 U	1.7 U
8270D SIM	91-20-3	Naphthalene	µg/kg	1.7 U	1.2 J Z	1.7 U	1.7 U	1.7 U F	0.88 J Z	17 U	1.7 UJ F, FD
8270D SIM	91-57-6	2-Methylnaphthalene	µg/kg	1.7 U	1.7 U	1.7 U	1.7 U	0.72 J Z	0.93 J Z	17 U	1.7 U

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			Sample Name	SL-840-SA7-SB-0.0-0.5	SL-541-SA7-SB-0.0-0.5	SL-541-SA7-SB-2.0-3.0	SL-542-SA7-SB-0.0-0.5	SL-544-SA7-SB-0.0-0.5	SL-547-SA7-SB-0.0-0.5	SL-548-SA7-SB-0.0-0.5	SL-549-SA7-SB-0.0-0.5	SL-551-SA7-SB-0.0-0.5
			Sample Type	FD	N	N	N	N	N	N	N	N
			Sample Date	04/09/2013	10/02/2013	10/02/2013	04/09/2013	04/09/2013	04/09/2013	04/10/2013	04/10/2013	04/10/2013
			SDG	PH027	PH121	PH121	PH027	PH027	PH028	PH028	PH028	PH028
			Start Depth	0	0	2	0	0	0	0	0	0
			End Depth	0.5	0.5	3	0.5	0.5	0.5	0.5	0.5	0.5
Analytic Method	CAS Number	Chemical Name	Unit									
8270D SIM	117-81-7	Bis(2-ethylhexyl)phthalate	µg/kg	13 J Z	190 U	18 U	18 U	18 U	18 U	18 U	18 U	9.0 J Z
8270D SIM	117-84-0	Di-n-octylphthalate	µg/kg	19 U	190 U	18 U	18 U	18 U	18 U	18 U	18 U	19 U
8270D SIM	120-12-7	Anthracene	µg/kg	1.7 U	18 U	1.7 U	1.8	1.7 U	1.7 U	0.35 J Z	1.7 U	0.47 J Z
8270D SIM	129-00-0	Pyrene	µg/kg	2.1	18 U	1.7 U	13	1.1 J Z	4.7	3.9	1.6 J Z	6.2
8270D SIM	131-11-3	Dimethylphthalate	µg/kg	19 U	190 U	18 U	18 U	18 U	18 U	18 U	18 U	19 U
8270D SIM	191-24-2	Benzo(g,h,i)perylene	µg/kg	0.77 J Z	18 U	1.7 U	3.7	1.2 J Z	1.0 J Z	1.3 J Z	1.7 U	2.3
8270D SIM	192-97-2	Benzo(e)pyrene	µg/kg	17 U	180 U	17 U	4.0 J Z	17 U	17 U	17 U	17 U	18 U
8270D SIM	193-39-5	Indeno(1,2,3-cd)pyrene	µg/kg	1.7 U	18 U	1.7 U	3.2	1.7 U	1.0 J Z	1.0 J Z	1.7 U	1.6 J Z
8270D SIM	205-99-2	Benzo(b)fluoranthene	µg/kg	1.6 J Z	18 U	1.7 U	8	1.4 J Z	2.9	3	1.5 J Z	5
8270D SIM	206-44-0	Fluoranthene	µg/kg	1.7	18 U	1.7 U	12	1.1 J Z	4.7	4	1.6 J Z	6.8
8270D SIM	207-08-9	Benzo(k)fluoranthene	µg/kg	1.7 U	18 U	1.7 U	4.4	1.7 U	0.93 J Z	1.2 J Z	1.7 U	1.9
8270D SIM	208-96-8	Acenaphthylene	µg/kg	1.7 U	18 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U
8270D SIM	218-01-9	Chrysene	µg/kg	1.5 J Z	18 U	0.42 J Z	7.8	1.6 J Z	2.9	2.8	1.7	4.3
8270D SIM	50-32-8	Benzo(a)pyrene	µg/kg	0.89 J Z	18 U	1.7 U	5.6	0.71 J Z	1.4 J Z	1.5 J Z	1.7 U	2.8
8270D SIM	53-70-3	Dibenzo(a,h)anthracene	µg/kg	1.7 U	18 U	1.7 U	1.0 J Z	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U
8270D SIM	56-55-3	Benzo(a)anthracene	µg/kg	0.80 J FD, Z	18 U	1.7 U	5.8	1.7 U	1.1 J Z	1.2 J Z	1.7 U	1.9
8270D SIM	62-75-9	N-Nitrosodimethylamine	µg/kg	1.7 U	18 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U
8270D SIM	83-32-9	Acenaphthene	µg/kg	1.7 U	18 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U
8270D SIM	84-66-2	Diethylphthalate	µg/kg	19 U	190 U	18 U	18 U	18 U	18 U	18 U	18 U	19 U
8270D SIM	84-74-2	Di-n-butylphthalate	µg/kg	19 U	190 U	18 U	18 U	18 U	18 U	18 U	18 U	19 U
8270D SIM	85-01-8	Phenanthrene	µg/kg	1.1 J Z	18 U	1.7 U	6.6	0.84 J Z	3	3.3	0.93 J Z	5
8270D SIM	85-68-7	Butylbenzylphthalate	µg/kg	8.7 J Z	190 U	18 U	18 U	18 U	18 U	18 U	18 U	19 U
8270D SIM	86-73-7	Fluorene	µg/kg	1.7 U	18 U	1.7 U	0.71 J Z	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U
8270D SIM	90-12-0	1-Methylnaphthalene	µg/kg	1.7 U	18 U	1.7 U	1.7 U	1.7 U	1.7 U	0.94 J Z	1.7 U	1.0 J Z
8270D SIM	91-20-3	Naphthalene	µg/kg	1.7 UJ FD	18 U	1.7 U	1.2 J Z	1.7 U	1.7 U	2.6	1.0 J Z	2.5
8270D SIM	91-57-6	2-Methylnaphthalene	µg/kg	1.7 U	18 U	1.7 U	1.7 U	1.7 U	1.7 U	1.6 J Z	0.73 J Z	1.7

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			Sample Name	SL-551-SA7-SB-2.0-3.0	SL-552-SA7-SB-0.0-0.5	SL-553-SA7-SB-0.0-0.5	SL-554-SA7-SB-0.0-0.5	SL-555-SA7-SB-0.0-0.5	SL-557-SA7-SB-0.0-0.5	SL-558-SA7-SB-0.0-0.5	SL-558-SA7-SB-3.0-4.0	SL-559-SA7-SB-0.0-0.5
			Sample Type	N	N	N	N	N	N	N	N	N
			Sample Date	04/10/2013	04/10/2013	04/11/2013	04/11/2013	04/11/2013	04/17/2013	04/16/2013	04/17/2013	04/16/2013
			SDG	PH028	PH028	PH029	PH029	PH029	PH033	PH032	PH033	PH032
			Start Depth	2	0	0	0	0	0	0	3	0
			End Depth	3	0.5	0.5	0.5	0.5	0.5	0.5	4	0.5
Analytic Method	CAS Number	Chemical Name	Unit									
8270D SIM	117-81-7	Bis(2-ethylhexyl)phthalate	µg/kg	19 U	29	6.8 J Z	190 U	1900 U	7.3 J Z	14 J Z	19 U	180 U
8270D SIM	117-84-0	Di-n-octylphthalate	µg/kg	19 U	19 U	18 U	190 U	1900 U	19 U	18 U	19 U	180 U
8270D SIM	120-12-7	Anthracene	µg/kg	1.7 U	1.7 U	1.7 U	17 U	180 U	1.7 U	0.36 J Z	1.7 U	17 U
8270D SIM	129-00-0	Pyrene	µg/kg	0.74 J Z	3.7	1.2 J Z	8.3 J Z	180 U	1.0 J Z	3.8	1.7 U	11 J Z
8270D SIM	131-11-3	Dimethylphthalate	µg/kg	19 U	19 U	18 U	190 U	1900 U	19 U	18 U	19 U	180 U
8270D SIM	191-24-2	Benzo(g,h,i)perylene	µg/kg	1.7 U	2	1.7 U	35	180 U	1.7 U	1.2 J Z	1.7 U	9.5 J Z
8270D SIM	192-97-2	Benzo(e)pyrene	µg/kg	18 U	18 U	17 U	80 J Z	1800 U	18 U	17 U	18 U	170 U
8270D SIM	193-39-5	Indeno(1,2,3-cd)pyrene	µg/kg	1.7 U	1.3 J Z	1.7 U	17 U	180 U	1.7 U	0.90 J Z	1.7 U	17 U
8270D SIM	205-99-2	Benzo(b)fluoranthene	µg/kg	1.7 U	3.7	1.2 J Z	68	180 U	1.2 J Z	3.1	1.7 U	18
8270D SIM	206-44-0	Fluoranthene	µg/kg	0.72 J Z	4.3	1.2 J Z	17 U	180 U	1.3 J Z	3.5	1.7 U	9.1 J Z
8270D SIM	207-08-9	Benzo(k)fluoranthene	µg/kg	1.7 U	1.7	1.7 U	17 U	180 U	3.8	1.1 J Z	4.4	17 U
8270D SIM	208-96-8	Acenaphthylene	µg/kg	1.7 U	1.7 U	1.7 U	17 U	180 U	1.7 U	1.7 U	1.7 U	17 U
8270D SIM	218-01-9	Chrysene	µg/kg	0.76 J Z	3	1.1 J Z	17 U	180 U	0.97 J Z	3.2	0.47 J Z	23
8270D SIM	50-32-8	Benzo(a)pyrene	µg/kg	1.7 U	2.2	1.7 U	17 U	180 U	1.7 U	1.8	1.7 U	7.8 J Z
8270D SIM	53-70-3	Dibenzo(a,h)anthracene	µg/kg	1.7 U	1.7 U	1.7 U	17 U	180 U	1.7 U	1.7 U	1.7 U	17 U
8270D SIM	56-55-3	Benzo(a)anthracene	µg/kg	1.7 U	1.3 J Z	1.7 U	17 U	180 U	1.7 U	1.4 J Z	1.7 U	17 U
8270D SIM	62-75-9	N-Nitrosodimethylamine	µg/kg	1.7 U	1.7 U	1.7 U	17 U	180 U	1.7 U	1.7 U	1.7 U	17 U
8270D SIM	83-32-9	Acenaphthene	µg/kg	1.7 U	1.7 U	1.7 U	17 U	180 U	1.7 U	1.7 U	1.7 U	17 U
8270D SIM	84-66-2	Diethylphthalate	µg/kg	19 U	19 U	18 U	190 U	1900 U	19 U	18 U	19 U	180 U
8270D SIM	84-74-2	Di-n-butylphthalate	µg/kg	19 U	19 U	18 U	190 U	1900 U	19 U	870	24 J Q	180 U
8270D SIM	85-01-8	Phenanthrene	µg/kg	1.7 U	1.7 U	0.68 J Z	17 U	180 U	0.80 J Z	3.3	1.7 U	8.2 J Z
8270D SIM	85-68-7	Butylbenzylphthalate	µg/kg	19 U	6.4 J Z	18 U	190 U	1900 U	19	18 U	19 U	180 U
8270D SIM	86-73-7	Fluorene	µg/kg	1.7 U	1.7 U	1.7 U	17 U	180 U	1.7 U	1.7 U	1.7 U	17 U
8270D SIM	90-12-0	1-Methylnaphthalene	µg/kg	1.7 U	1.7 U	1.7 U	17 U	180 U	1.7 U	1.7 U	1.7 U	17 U
8270D SIM	91-20-3	Naphthalene	µg/kg	1.7 U	1.7 U	1.7 U	17 U	180 U	1.7 U F	1.6 J Z	1.7 U	17 U
8270D SIM	91-57-6	2-Methylnaphthalene	µg/kg	1.7 U	1.7 U	1.7 U	17 U	180 U	1.7 U	1.2 J Z	1.7 U	17 U

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			Sample Name	SL-559-SA7-SB-2.0-3.0	SL-560-SA7-SB-0.0-0.5	SL-560-SA7-SB-3.0-4.0	SL-561-SA7-SB-0.0-0.5	SL-562-SA7-SB-0.0-0.5	SL-562-SA7-SB-2.0-3.0
			Sample Type	N	N	N	N	N	N
			Sample Date	04/16/2013	04/16/2013	04/16/2013	04/16/2013	04/26/2013	04/26/2013
			SDG	PH032	PH032	PH032	PH032	PH040	PH040
			Start Depth	2	0	3	0	0	2
			End Depth	3	0.5	4	0.5	0.5	3
Analytic Method	CAS Number	Chemical Name	Unit						
8270D SIM	117-81-7	Bis(2-ethylhexyl)phthalate	µg/kg	78 J Z	6.6 J Z	20 U	8.8 J Z	190 U	150 J Z
8270D SIM	117-84-0	Di-n-octylphthalate	µg/kg	190 U	19 U	20 U	19 U	190 U	190 U
8270D SIM	120-12-7	Anthracene	µg/kg	17 U	4.6	1.9 U	2.3	17 U	17 U
8270D SIM	129-00-0	Pyrene	µg/kg	17 U	62	1.2 J Z	38	19	13 J Z
8270D SIM	131-11-3	Dimethylphthalate	µg/kg	190 U	19 U	20 U	19 U	190 U	190 U
8270D SIM	191-24-2	Benzo(g,h,i)perylene	µg/kg	17 U	12	1.9 U	1.6 J Z	9.8 J Z	40
8270D SIM	192-97-2	Benzo(e)pyrene	µg/kg	180 U	25	19 U	18 U	180 U	100 J Z
8270D SIM	193-39-5	Indeno(1,2,3-cd)pyrene	µg/kg	17 U	13	1.9 U	1.1 J Z	7.8 J Z	15 J Z
8270D SIM	205-99-2	Benzo(b)fluoranthene	µg/kg	17 U	62	1.3 J Z	6.7	23	39
8270D SIM	206-44-0	Fluoranthene	µg/kg	17 U	54	1.9 U	42	22	15 J Z
8270D SIM	207-08-9	Benzo(k)fluoranthene	µg/kg	17 U	26	1.9 U	2.9	7.9 J Z	46
8270D SIM	208-96-8	Acenaphthylene	µg/kg	9.2 J Z	1.7 U	1.9 U	0.94 J Z	17 U	17 U
8270D SIM	218-01-9	Chrysene	µg/kg	14 J Z	47	2.2	11	16 J Z	39
8270D SIM	50-32-8	Benzo(a)pyrene	µg/kg	17 U	41	1.9 U	2.2	12 J Z	28
8270D SIM	53-70-3	Dibenzo(a,h)anthracene	µg/kg	17 U	4.4	1.9 U	1.7 U	17 U	17
8270D SIM	56-55-3	Benzo(a)anthracene	µg/kg	17 U	42	1.9 U	3.4	17 U	7.9 J Z
8270D SIM	62-75-9	N-Nitrosodimethylamine	µg/kg	17 U	1.7 U	1.9 U	1.7 U	17 U	17 U
8270D SIM	83-32-9	Acenaphthene	µg/kg	7.8 J Z	1.7 U	1.9 U	1.7 U	17 U	17 U
8270D SIM	84-66-2	Diethylphthalate	µg/kg	190 U	19 U	20 U	19 U	190 U	190 U
8270D SIM	84-74-2	Di-n-butylphthalate	µg/kg	190 U	7.4 J Z	20 U	33	190 U	190 U
8270D SIM	85-01-8	Phenanthrene	µg/kg	16 J Z	8.6	1.9 U	29	12 J Z	17 U
8270D SIM	85-68-7	Butylbenzylphthalate	µg/kg	190 U	19 U	20 U	19 U	190 U	190 U
8270D SIM	86-73-7	Fluorene	µg/kg	28	1.7 U	1.9 U	1.0 J Z	17 U	17 U
8270D SIM	90-12-0	1-Methylnaphthalene	µg/kg	560	1.7 U	1.9 U	1.2 J Z	17 U	17 U
8270D SIM	91-20-3	Naphthalene	µg/kg	200	0.93 J Z	1.9 U	3.3	17 U	17 U
8270D SIM	91-57-6	2-Methylnaphthalene	µg/kg	690	0.94 J Z	1.9 U	1.7	17 U	17 U

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			Sample Name	SL-500-SA7-SB-0.0-0.5	SL-501-SA7-SB-0.0-0.5	SL-502-SA7-SB-0.0-0.5	SL-503-SA7-SB-0.0-0.5	SL-504-SA7-SB-0.0-0.5	SL-504-SA7-SB-4.0-5.0	SL-505-SA7-SB-0.0-0.5	SL-506-SA7-SB-0.0-0.5	SL-507-SA7-SB-0.0-0.5
			Sample Type	N	N	N	N	N	N	N	N	N
			Sample Date	04/17/2013	04/17/2013	04/17/2013	04/22/2013	04/22/2013	04/22/2013	04/17/2013	04/25/2013	04/24/2013
			SDG	PH033	PH033	PH033	PH036	PH036	PH036	PH033	PH039	PH039
			Start Depth	0	0	0	0	0	4	0	0	0
			End Depth	0.5	0.5	0.5	0.5	0.5	5	0.5	0.5	0.5
Analytic Method	CAS Number	Chemical Name	Unit									
8082A	11096-82-5	Aroclor 1260	µg/kg	17 U	17 U	17 U	17 U	18 U	18 U	17 U	17 U	17 U
8082A	11097-69-1	Aroclor 1254	µg/kg	17 U	17 U	18	11 J S, Z	41	8.3 J S, Z	44	17 U	17 U
8082A	11100-14-4	Aroclor 1268	µg/kg	17 U	17 U	17 U	17 U	18 U	18 U	17 U	17 U	17 U
8082A	11104-28-2	Aroclor 1221	µg/kg	17 U	17 U	17 U	17 U	18 U	18 U	17 U	17 U	17 U
8082A	11126-42-4	Aroclor 5460	µg/kg	33 U	33 U	24 J Z	16 J S, Z	57	13 J S, Z	33 U	34 UJ E	34 UJ E
8082A	11141-16-5	Aroclor 1232	µg/kg	17 U	17 U	17 U	17 U	18 U	18 U	17 U	17 U	17 U
8082A	12642-23-8	Aroclor 5442	µg/kg	33 U	33 U	34 U	34 U	34 U	35 U	33 U	34 UJ E	34 UJ E
8082A	12672-29-6	Aroclor 1248	µg/kg	17 U	17 U	17 U	17 U	18 U	18 U	17 U	17 U	17 U
8082A	12674-11-2	Aroclor 1016	µg/kg	17 U	17 U	17 U	17 U	18 U	18 U	17 U	17 U	17 U
8082A	37324-23-5	Aroclor 1262	µg/kg	17 U	17 U	17 U	17 U	18 U	18 U	17 U	17 U	17 U
8082A	53469-21-9	Aroclor 1242	µg/kg	17 U	17 U	17 U	17 U	18 U	18 U	17 U	17 U	17 U
8082A	63496-31-1	Aroclor 5432	µg/kg	33 U	33 U	34 U	34 U	34 U	35 U	33 U	34 UJ E	34 UJ E

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			Sample Name	SL-508-SA7-SB-0.0-0.5	SL-509-SA7-SB-0.0-0.5	SL-510-SA7-SB-0.0-0.5	SL-810-SA7-SB-0.0-0.5	SL-511-SA7-SB-0.0-0.5	SL-512-SA7-SB-0.0-0.5	SL-513-SA7-SB-0.0-0.5	SL-913-SA7-SB-0.0-0.5	SL-514-SA7-SB-0.0-0.5
			Sample Type	N	N	N	FD	N	N	N	FD	N
			Sample Date	04/25/2013	04/25/2013	04/22/2013	04/22/2013	04/19/2013	04/23/2013	06/04/2013	06/04/2013	06/06/2013
			SDG	PH039	PH039	PH036	PH036	PH035	PH037	PH046	PH046	PH049
			Start Depth	0	0	0	0	0	0	0	0	0
			End Depth	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Analytic Method	CAS Number	Chemical Name	Unit									
8082A	11096-82-5	Aroclor 1260	µg/kg	17 U	17 U	18 U	17 U	7.8 J Z	17 U	17 U	17 U	17 U
8082A	11097-69-1	Aroclor 1254	µg/kg	110 J S	100	14 J FD, Z	25 J FD, S	13 J Z	17 U	13 J Z	13 J Z	52
8082A	11100-14-4	Aroclor 1268	µg/kg	17 U	17 U	18 U	17 U	18 U	17 U	17 U	17 U	17 U
8082A	11104-28-2	Aroclor 1221	µg/kg	17 U	17 U	18 U	17 U	18 U	17 U	17 U	17 U	17 U
8082A	11126-42-4	Aroclor 5460	µg/kg	49 J S, E	57 J E	17 J FD, Z	32 J FD, S, Z	34	34 U	33 UJ FD	17 J FD, Z	180
8082A	11141-16-5	Aroclor 1232	µg/kg	17 U	17 U	18 U	17 U	18 U	17 U	17 U	17 U	17 U
8082A	12642-23-8	Aroclor 5442	µg/kg	33 UJ E	34 UJ E	34 U	34 U	34 U	34 U	33 U	34 U	33 U
8082A	12672-29-6	Aroclor 1248	µg/kg	17 U	17 U	18 U	17 U	18 U	17 U	17 U	17 U	17 U
8082A	12674-11-2	Aroclor 1016	µg/kg	17 U	17 U	18 U	17 U	18 U	17 U	17 U	17 U	17 U
8082A	37324-23-5	Aroclor 1262	µg/kg	17 U	17 U	18 U	17 U	18 U	17 U	17 U	17 U	17 U
8082A	53469-21-9	Aroclor 1242	µg/kg	17 U	17 U	18 U	17 U	18 U	17 U	17 U	17 U	17 U
8082A	63496-31-1	Aroclor 5432	µg/kg	33 UJ E	34 UJ E	34 U	34 U	34 U	34 U	33 U	34 U	33 U

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			Sample Name	SL-515-SA7-SB-0.0-0.5	SL-516-SA7-SB-0.0-0.5	SL-517-SA7-SB-0.0-0.5	SL-518-SA7-SB-0.0-0.5	SL-519-SA7-SB-0.0-0.5	SL-819-SA7-SB-0.0-0.5	SL-519-SA7-SB-2.0-3.0	SL-520-SA7-SB-0.0-0.5	SL-521-SA7-SB-0.0-0.5
			Sample Type	N	N	N	N	N	FD	N	N	N
			Sample Date	06/06/2013	06/04/2013	04/22/2013	04/19/2013	04/25/2013	04/25/2013	04/25/2013	04/19/2013	04/15/2013
			SDG	PH049	PH046	PH036	PH035	PH039	PH039	PH039	PH035	PH031
			Start Depth	0	0	0	0	0	0	2	0	0
			End Depth	0.5	0.5	0.5	0.5	0.5	0.5	3	0.5	0.5
Analytic Method	CAS Number	Chemical Name	Unit									
8082A	11096-82-5	Aroclor 1260	µg/kg	17 U	18 U	280 J S	87 U	17 U	17 U	17 U	5.0 J Z	17 U
8082A	11097-69-1	Aroclor 1254	µg/kg	17 U	18 U	87 U	430	7.0 J Z	6.1 J Z	17 U	17 U	6.7 J Z
8082A	11100-14-4	Aroclor 1268	µg/kg	17 U	18 U	87 U	87 U	17 U	17 U	17 U	17 U	17 U
8082A	11104-28-2	Aroclor 1221	µg/kg	17 U	18 U	87 U	87 U	17 U	17 U	17 U	17 U	17 U
8082A	11126-42-4	Aroclor 5460	µg/kg	33 U	34 U	250 J S	110 J Z	33 UJ E	34 UJ E	34 UJ E	24 J Z	17 J Z
8082A	11141-16-5	Aroclor 1232	µg/kg	17 U	18 U	87 U	87 U	17 U	17 U	17 U	17 U	17 U
8082A	12642-23-8	Aroclor 5442	µg/kg	33 U	34 U	170 U	170 U	33 UJ E	34 UJ E	34 UJ E	33 U	33 U
8082A	12672-29-6	Aroclor 1248	µg/kg	17 U	18 U	87 U	87 U	17 U	17 U	17 U	17 U	17 U
8082A	12674-11-2	Aroclor 1016	µg/kg	17 U	18 U	87 U	87 U	17 U	17 U	17 U	17 U	17 U
8082A	37324-23-5	Aroclor 1262	µg/kg	17 U	18 U	87 U	87 U	17 U	17 U	17 U	17 U	17 U
8082A	53469-21-9	Aroclor 1242	µg/kg	17 U	18 U	87 U	87 U	17 U	17 U	17 U	17 U	17 U
8082A	63496-31-1	Aroclor 5432	µg/kg	33 U	34 U	170 U	170 U	33 UJ E	34 UJ E	34 UJ E	33 U	33 U

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			Sample Name	SL-522-SA7-SB-0.0-0.5	SL-524-SA7-SB-0.0-0.5	SL-524-SA7-SB-1.0-2.0	SL-924-SA7-SB-1.0-2.0	SL-525-SA7-SB-0.0-0.5	SL-525-SA7-SB-4.0-5.0	SL-525-SA7-SB-6.5-7.5	SL-525-SA7-SB-9.5-10.5	SL-526-SA7-SB-0.0-0.5
			Sample Type	N	N	N	FD	N	N	N	N	N
			Sample Date	04/15/2013	06/04/2013	06/04/2013	06/04/2013	04/23/2013	06/03/2013	04/24/2013	06/03/2013	04/23/2013
			SDG	PH031	PH046	PH046	PH046	PH037	PH045	PH038	PH045	PH037
			Start Depth	0	0	1	1	0	4	6.5	9.5	0
			End Depth	0.5	0.5	2	2	0.5	5	7.5	10.5	0.5
Analytic Method	CAS Number	Chemical Name	Unit									
8082A	11096-82-5	Aroclor 1260	µg/kg	17 U	18 U	18 U	18 U	18 U	9.5 J Z	18 U	18 U	19 U
8082A	11097-69-1	Aroclor 1254	µg/kg	17 U	18 U	18 U	18 U	47	18 U	14 J Z	18 U	19 U
8082A	11100-14-4	Aroclor 1268	µg/kg	17 U	18 U	18 U	18 U	18 U	18 U	18 U	18 U	19 U
8082A	11104-28-2	Aroclor 1221	µg/kg	17 U	18 U	18 U	18 U	18 U	18 U	18 U	18 U	19 U
8082A	11126-42-4	Aroclor 5460	µg/kg	34 U	36 U	36 U	36 U	34 U	34 U	34 U	34 U	36 U
8082A	11141-16-5	Aroclor 1232	µg/kg	17 U	18 U	18 U	18 U	18 U	18 U	18 U	18 U	19 U
8082A	12642-23-8	Aroclor 5442	µg/kg	34 U	36 U	36 U	36 U	34 U	34 U	34 U	34 U	36 U
8082A	12672-29-6	Aroclor 1248	µg/kg	17 U	18 U	18 U	18 U	18 U	18 U	18 U	18 U	19 U
8082A	12674-11-2	Aroclor 1016	µg/kg	17 U	18 U	18 U	18 U	18 U	18 U	18 U	18 U	19 U
8082A	37324-23-5	Aroclor 1262	µg/kg	17 U	18 U	18 U	18 U	18 U	18 U	18 U	18 U	19 U
8082A	53469-21-9	Aroclor 1242	µg/kg	17 U	18 U	18 U	18 U	18 U	18 U	18 U	18 U	19 U
8082A	63496-31-1	Aroclor 5432	µg/kg	34 U	36 U	36 U	36 U	34 U	34 U	34 U	34 U	36 U

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			Sample Name	SL-526-SA7-SB-3.5-4.5	SL-526-SA7-SB-9.0-10.0	SL-527-SA7-SB-0.0-0.5	SL-527-SA7-SB-2.5-3.5	SL-528-SA7-SB-0.0-0.5	SL-529-SA7-SB-0.0-0.5	SL-530-SA7-SB-0.0-0.5	SL-531-SA7-SB-0.0-0.5	SL-532-SA7-SB-0.0-0.5
			Sample Type	N	N	N	N	N	N	N	N	N
			Sample Date	04/23/2013	06/03/2013	04/24/2013	04/24/2013	04/24/2013	04/24/2013	04/18/2013	04/18/2013	04/18/2013
			SDG	PH037	PH045	PH038	PH038	PH038	PH038	PH034	PH034	PH034
			Start Depth	3.5	9	0	2.5	0	0	0	0	0
			End Depth	4.5	10	0.5	3.5	0.5	0.5	0.5	0.5	0.5
Analytic Method	CAS Number	Chemical Name	Unit									
8082A	11096-82-5	Aroclor 1260	µg/kg	18 U	18 U	17 U	17 U	17 U	18 U	18 U	17 U	17 U
8082A	11097-69-1	Aroclor 1254	µg/kg	18 U	18 U	17 U	17 U	17 U	18 U	18 U	17 U	17 U
8082A	11100-14-4	Aroclor 1268	µg/kg	18 U	18 U	17 U	17 U	17 U	18 U	18 U	17 U	17 U
8082A	11104-28-2	Aroclor 1221	µg/kg	18 U	18 U	17 U	17 U	17 U	18 U	18 U	17 U	17 U
8082A	11126-42-4	Aroclor 5460	µg/kg	35 U	36 U	34 U	34 U	34 U	35 U	34 U	34 U	34 U
8082A	11141-16-5	Aroclor 1232	µg/kg	18 U	18 U	17 U	17 U	17 U	18 U	18 U	17 U	17 U
8082A	12642-23-8	Aroclor 5442	µg/kg	35 U	36 U	34 U	34 U	34 U	35 U	34 U	34 U	34 U
8082A	12672-29-6	Aroclor 1248	µg/kg	18 U	18 U	17 U	17 U	17 U	18 U	18 U	17 U	17 U
8082A	12674-11-2	Aroclor 1016	µg/kg	18 U	18 U	17 U	17 U	17 U	18 U	18 U	17 U	17 U
8082A	37324-23-5	Aroclor 1262	µg/kg	18 U	18 U	17 U	17 U	17 U	18 U	18 U	17 U	17 U
8082A	53469-21-9	Aroclor 1242	µg/kg	18 U	18 U	17 U	17 U	17 U	18 U	18 U	17 U	17 U
8082A	63496-31-1	Aroclor 5432	µg/kg	35 U	36 U	34 U	34 U	34 U	35 U	34 U	34 U	34 U

U-Compound not detected above reporting limit
J-Result is an estimated value
R-Result is rejected if R qualifier is in first position. If R qualifier is after another qualifier, result is not rejected but qualified as estimated during validation

			Sample Name	SL-532-SA7-SB-3.0-4.0	SL-533-SA7-SB-0.0-0.5	SL-533-SA7-SB-2.5-3.5	SL-534-SA7-SB-0.0-0.5	SL-534-SA7-SB-5.5-6.5	SL-535-SA7-SB-0.0-0.5	SL-535-SA7-SB-4.0-5.0	SL-535-SA7-SB-9.0-10.0	SL-536-SA7-SB-0.0-0.5
			Sample Type	N	N	N	N	N	N	N	N	N
			Sample Date	06/03/2013	04/18/2013	06/03/2013	04/12/2013	04/15/2013	04/12/2013	04/12/2013	04/12/2013	04/11/2013
			SDG	PH045	PH034	PH045	PH030	PH031	PH030	PH030	PH030	PH029
			Start Depth	3	0	2.5	0	5.5	0	4	9	0
			End Depth	4	0.5	3.5	0.5	6.5	0.5	5	10	0.5
Analytic Method	CAS Number	Chemical Name	Unit									
8082A	11096-82-5	Aroclor 1260	µg/kg	18 U	18 U	17 U	17 U	18 U	17 U	17 U	17 U	17 U
8082A	11097-69-1	Aroclor 1254	µg/kg	18 U	18 U	17 U	17 U	18 U	17 U	17 U	17 U	17 U
8082A	11100-14-4	Aroclor 1268	µg/kg	18 U	18 U	17 U	17 U	18 U	17 U	17 U	17 U	17 U
8082A	11104-28-2	Aroclor 1221	µg/kg	18 U	18 U	17 U	17 U	18 U	17 U	17 U	17 U	17 U
8082A	11126-42-4	Aroclor 5460	µg/kg	34 U	34 U	34 U	34 U	34 U	33 U	34 U	34 U	33 U
8082A	11141-16-5	Aroclor 1232	µg/kg	18 U	18 U	17 U	17 U	18 U	17 U	17 U	17 U	17 U
8082A	12642-23-8	Aroclor 5442	µg/kg	34 U	34 U	34 U	34 U	34 U	33 U	34 U	34 U	33 U
8082A	12672-29-6	Aroclor 1248	µg/kg	18 U	18 U	17 U	17 U	18 U	17 U	17 U	17 U	17 U
8082A	12674-11-2	Aroclor 1016	µg/kg	18 U	18 U	17 U	17 U	18 U	17 U	17 U	17 U	17 U
8082A	37324-23-5	Aroclor 1262	µg/kg	18 U	18 U	17 U	17 U	18 U	17 U	17 U	17 U	17 U
8082A	53469-21-9	Aroclor 1242	µg/kg	18 U	18 U	17 U	17 U	18 U	17 U	17 U	17 U	17 U
8082A	63496-31-1	Aroclor 5432	µg/kg	34 U	34 U	34 U	34 U	34 U	33 U	34 U	34 U	33 U

U-Compound not detected above reporting limit
J-Result is an estimated value
R-Result is rejected if R qualifier is in first position. If R qualifier is after another qualifier, result is not rejected but qualified as estimated during validation

			Sample Name	SL-536-SA7-SB-3.0-4.0	SL-836-SA7-SB-3.0-4.0	SL-537-SA7-SB-0.0-0.5	SL-538-SA7-SB-0.0-0.5	SL-539-SA7-SB-0.0-0.5	SL-540-SA7-SB-0.0-0.5	SL-840-SA7-SB-0.0-0.5	SL-541-SA7-SB-0.0-0.5	SL-541-SA7-SB-2.0-3.0
			Sample Type	N	FD	N	N	N	N	FD	N	N
			Sample Date	04/12/2013	04/12/2013	04/15/2013	04/15/2013	04/08/2013	04/09/2013	04/09/2013	10/02/2013	10/02/2013
			SDG	PH030	PH030	PH031	PH031	PH027	PH027	PH027	PH121	PH121
			Start Depth	3	3	0	0	0	0	0	0	2
			End Depth	4	4	0.5	0.5	0.5	0.5	0.5	0.5	3
Analytic Method	CAS Number	Chemical Name	Unit									
8082A	11096-82-5	Aroclor 1260	µg/kg	17 U	17 U	11 J S, Z	17 U	17 U	18 U	17 U	18 U	17 U
8082A	11097-69-1	Aroclor 1254	µg/kg	17 U	17 U	17 U	17 U	37	18 U	17 U	18 U	17 U
8082A	11100-14-4	Aroclor 1268	µg/kg	17 U	17 U	17 U	17 U	17 U	18 U	17 U	18 U	17 U
8082A	11104-28-2	Aroclor 1221	µg/kg	17 U	17 U	17 U	17 U	17 U	18 U	17 U	18 U	17 U
8082A	11126-42-4	Aroclor 5460	µg/kg	33 U	33 U	33 U	33 U	23 J Z	34 U	34 U	35 U	34 U
8082A	11141-16-5	Aroclor 1232	µg/kg	17 U	17 U	17 U	17 U	17 U	18 U	17 U	18 U	17 U
8082A	12642-23-8	Aroclor 5442	µg/kg	33 U	33 U	33 U	33 U	34 U	34 U	34 U	35 U	34 U
8082A	12672-29-6	Aroclor 1248	µg/kg	17 U	17 U	17 U	17 U	17 U	18 U	17 U	18 U	17 U
8082A	12674-11-2	Aroclor 1016	µg/kg	17 U	17 U	17 U	17 U	17 U	18 U	17 U	18 U	17 U
8082A	37324-23-5	Aroclor 1262	µg/kg	17 U	17 U	17 U	17 U	17 U	18 U	17 U	18 U	17 U
8082A	53469-21-9	Aroclor 1242	µg/kg	17 U	17 U	17 U	17 U	17 U	18 U	17 U	18 U	17 U
8082A	63496-31-1	Aroclor 5432	µg/kg	33 U	33 U	33 U	33 U	34 U	34 U	34 U	35 U	34 U

U-Compound not detected above reporting limit
J-Result is an estimated value
R-Result is rejected if R qualifier is in first position. If R qualifier is after another qualifier, result is not rejected but qualified as estimated during validation

			Sample Name	SL-542-SA7-SB-0.0-0.5	SL-543A-SA7-SB-0.0-0.5	SL-543B-SA7-SB-0.0-0.5	SL-543C-SA7-SB-0.0-0.5	SL-543D-SA7-SB-0.0-0.5	SL-544-SA7-SB-0.0-0.5	SL-545A-SA7-SB-0.0-0.5	SL-545B-SA7-SB-0.0-0.5	SL-545C-SA7-SB-0.0-0.5
			Sample Type	N	N	N	N	N	N	N	N	N
			Sample Date	04/09/2013	04/25/2013	04/25/2013	04/25/2013	04/25/2013	04/09/2013	06/03/2013	06/03/2013	06/03/2013
			SDG	PH027	PH040	PH040	PH040	PH040	PH027	PH046	PH046	PH046
			Start Depth	0	0	0	0	0	0	0	0	0
			End Depth	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Analytic Method	CAS Number	Chemical Name	Unit									
8082A	11096-82-5	Aroclor 1260	µg/kg	17 U	17 U	17 U	17 U	17 U	17 U	18 U	18 U	17 U
8082A	11097-69-1	Aroclor 1254	µg/kg	17 U	17 U	17 U	17 U	17 U	17 U	18 U	18 U	17 U
8082A	11100-14-4	Aroclor 1268	µg/kg	17 U	17 U	17 U	17 U	17 U	17 U	18 U	18 U	17 U
8082A	11104-28-2	Aroclor 1221	µg/kg	17 U	17 U	17 U	17 U	17 U	17 U	18 U	18 U	17 U
8082A	11126-42-4	Aroclor 5460	µg/kg	34 U	33 UJ E	33 UJ E	33 UJ E	33 UJ E	34 U	34 U	35 U	34 U
8082A	11141-16-5	Aroclor 1232	µg/kg	17 U	17 U	17 U	17 U	17 U	17 U	18 U	18 U	17 U
8082A	12642-23-8	Aroclor 5442	µg/kg	34 U	33 UJ E	33 UJ E	33 UJ E	33 UJ E	34 U	34 U	35 U	34 U
8082A	12672-29-6	Aroclor 1248	µg/kg	17 U	17 U	17 U	17 U	17 U	17 U	18 U	18 U	17 U
8082A	12674-11-2	Aroclor 1016	µg/kg	17 U	17 U	17 U	17 U	17 U	17 U	18 U	18 U	17 U
8082A	37324-23-5	Aroclor 1262	µg/kg	17 U	17 U	17 U	17 U	17 U	17 U	18 U	18 U	17 U
8082A	53469-21-9	Aroclor 1242	µg/kg	17 U	17 U	17 U	17 U	17 U	17 U	18 U	18 U	17 U
8082A	63496-31-1	Aroclor 5432	µg/kg	34 U	33 UJ E	33 UJ E	33 UJ E	33 UJ E	34 U	34 U	35 U	34 U

U-Compound not detected above reporting limit
J-Result is an estimated value
R-Result is rejected if R qualifier is in first position. If R qualifier is after another qualifier, result is not rejected but qualified as estimated during validation

			Sample Name	SL-547-SA7-SB-0.0-0.5	SL-548-SA7-SB-0.0-0.5	SL-549-SA7-SB-0.0-0.5	SL-551-SA7-SB-0.0-0.5	SL-551-SA7-SB-2.0-3.0	SL-552-SA7-SB-0.0-0.5	SL-553-SA7-SB-0.0-0.5	SL-554-SA7-SB-0.0-0.5	SL-555-SA7-SB-0.0-0.5
			Sample Type	N	N	N	N	N	N	N	N	N
			Sample Date	04/09/2013	04/10/2013	04/10/2013	04/10/2013	04/10/2013	04/10/2013	04/11/2013	04/11/2013	04/11/2013
			SDG	PH028	PH028	PH028	PH028	PH028	PH028	PH029	PH029	PH029
			Start Depth	0	0	0	0	2	0	0	0	0
			End Depth	0.5	0.5	0.5	0.5	3	0.5	0.5	0.5	0.5
Analytic Method	CAS Number	Chemical Name	Unit									
8082A	11096-82-5	Aroclor 1260	µg/kg	17 U	17 U	17 U	17 U	18 U	17 U	17 U	17 U	18 U
8082A	11097-69-1	Aroclor 1254	µg/kg	17 U	17 U	17 U	17 U	18 U	17 U	17 U	17 U	18 U
8082A	11100-14-4	Aroclor 1268	µg/kg	17 U	17 U	17 U	17 U	18 U	17 U	17 U	17 U	18 U
8082A	11104-28-2	Aroclor 1221	µg/kg	17 U	17 U	17 U	17 U	18 U	17 U	17 U	17 U	18 U
8082A	11126-42-4	Aroclor 5460	µg/kg	34 U	34 U	34 U	34 U	34 U	34 U	33 U	34 U	35 U
8082A	11141-16-5	Aroclor 1232	µg/kg	17 U	17 U	17 U	17 U	18 U	17 U	17 U	17 U	18 U
8082A	12642-23-8	Aroclor 5442	µg/kg	34 U	34 U	34 U	34 U	34 U	34 U	33 U	34 U	35 U
8082A	12672-29-6	Aroclor 1248	µg/kg	17 U	17 U	17 U	17 U	18 U	17 U	17 U	17 U	18 U
8082A	12674-11-2	Aroclor 1016	µg/kg	17 U	17 U	17 U	17 U	18 U	17 U	17 U	17 U	18 U
8082A	37324-23-5	Aroclor 1262	µg/kg	17 U	17 U	17 U	17 U	18 U	17 U	17 U	17 U	18 U
8082A	53469-21-9	Aroclor 1242	µg/kg	17 U	17 U	17 U	17 U	18 U	17 U	17 U	17 U	18 U
8082A	63496-31-1	Aroclor 5432	µg/kg	34 U	34 U	34 U	34 U	34 U	34 U	33 U	34 U	35 U

U-Compound not detected above reporting limit
J-Result is an estimated value
R-Result is rejected if R qualifier is in first position. If R qualifier is after another qualifier, result is not rejected but qualified as estimated during validation

			Sample Name	SL-557-SA7-SB-0.0-0.5	SL-558-SA7-SB-0.0-0.5	SL-558-SA7-SB-3.0-4.0	SL-559-SA7-SB-0.0-0.5	SL-559-SA7-SB-2.0-3.0	SL-560-SA7-SB-0.0-0.5	SL-560-SA7-SB-3.0-4.0	SL-561-SA7-SB-0.0-0.5	SL-562-SA7-SB-0.0-0.5
			Sample Type	N	N	N	N	N	N	N	N	N
			Sample Date	04/17/2013	04/16/2013	04/17/2013	04/16/2013	04/16/2013	04/16/2013	04/16/2013	04/16/2013	04/26/2013
			SDG	PH033	PH032	PH033	PH032	PH032	PH032	PH032	PH032	PH040
			Start Depth	0	0	3	0	2	0	3	0	0
			End Depth	0.5	0.5	4	0.5	3	0.5	4	0.5	0.5
Analytic Method	CAS Number	Chemical Name	Unit									
8082A	11096-82-5	Aroclor 1260	µg/kg	17 U	17 U	17 U	17 U	18 U	18 U	19 U	17 U	17 U
8082A	11097-69-1	Aroclor 1254	µg/kg	17 U	17 U	17 U	13 J Z	12 J Z	18 U	19 U	17 U	17 U
8082A	11100-14-4	Aroclor 1268	µg/kg	17 U	17 U	17 U	17 U	18 U	18 U	19 U	17 U	17 U
8082A	11104-28-2	Aroclor 1221	µg/kg	17 U	17 U	17 U	17 U	18 U	18 U	19 U	17 U	17 U
8082A	11126-42-4	Aroclor 5460	µg/kg	34 U	33 U	34 U	17 J Z	15 J Z	34 U	36 U	34 U	34 UJ E
8082A	11141-16-5	Aroclor 1232	µg/kg	17 U	17 U	17 U	17 U	18 U	18 U	19 U	17 U	17 U
8082A	12642-23-8	Aroclor 5442	µg/kg	34 U	33 U	34 U	34 U	34 U	34 U	36 U	34 U	34 UJ E
8082A	12672-29-6	Aroclor 1248	µg/kg	17 U	17 U	17 U	17 U	18 U	18 U	19 U	17 U	17 U
8082A	12674-11-2	Aroclor 1016	µg/kg	17 U	17 U	17 U	17 U	18 U	18 U	19 U	17 U	17 U
8082A	37324-23-5	Aroclor 1262	µg/kg	17 U	17 U	17 U	17 U	18 U	18 U	19 U	17 U	17 U
8082A	53469-21-9	Aroclor 1242	µg/kg	17 U	17 U	17 U	17 U	18 U	18 U	19 U	17 U	17 U
8082A	63496-31-1	Aroclor 5432	µg/kg	34 U	33 U	34 U	34 U	34 U	34 U	36 U	34 U	34 UJ E

U-Compound not detected above reporting limit
J-Result is an estimated value
R-Result is rejected if R qualifier is in first position. If R qualifier is after another qualifier, result is not rejected but qualified as estimated during validation

			Sample Name	SL-562-SA7-SB-2.0-3.0
			Sample Type	N
			Sample Date	04/26/2013
			SDG	PH040
			Start Depth	2
			End Depth	3
Analytic Method	CAS Number	Chemical Name	Unit	
8082A	11096-82-5	Aroclor 1260	µg/kg	17 U
8082A	11097-69-1	Aroclor 1254	µg/kg	17 U
8082A	11100-14-4	Aroclor 1268	µg/kg	17 U
8082A	11104-28-2	Aroclor 1221	µg/kg	17 U
8082A	11126-42-4	Aroclor 5460	µg/kg	33 UJ E
8082A	11141-16-5	Aroclor 1232	µg/kg	17 U
8082A	12642-23-8	Aroclor 5442	µg/kg	33 UJ E
8082A	12672-29-6	Aroclor 1248	µg/kg	17 U
8082A	12674-11-2	Aroclor 1016	µg/kg	17 U
8082A	37324-23-5	Aroclor 1262	µg/kg	17 U
8082A	53469-21-9	Aroclor 1242	µg/kg	17 U
8082A	63496-31-1	Aroclor 5432	µg/kg	33 UJ E

U-Compound not detected above reporting limit
J-Result is an estimated value
R-Result is rejected if R qualifier is in first position. If R qualifier is after another qualifier, result is not rejected but qualified as estimated during validation

			Sample Name	SL-503-SA7-SB-0.0-0.5	SL-504-SA7-SB-0.0-0.5	SL-504-SA7-SB-4.0-5.0	SL-510-SA7-SB-0.0-0.5	SL-810-SA7-SB-0.0-0.5	SL-511-SA7-SB-0.0-0.5	SL-513-SA7-SB-0.0-0.5	SL-913-SA7-SB-0.0-0.5	SL-515-SA7-SB-0.0-0.5
			Sample Type	N	N	N	N	FD	N	N	FD	N
			Sample Date	04/22/2013	04/22/2013	04/22/2013	04/22/2013	04/22/2013	04/19/2013	06/04/2013	06/04/2013	06/06/2013
			SDG	PH036	PH036	PH036	PH036	PH036	PH035	PH046	PH046	PH049
			Start Depth	0	0	4	0	0	0	0	0	0
			End Depth	0.5	0.5	5	0.5	0.5	0.5	0.5	0.5	0.5
Analytic Method	CAS Number	Chemical Name	Unit									
8081B	1024-57-3	Heptachlor Epoxide	µg/kg	0.85 U	0.86 U	0.88 U	0.86 U	0.86 U	0.87 U	0.85 U	0.84 U	0.84 U
8081B	1031-07-8	Endosulfan Sulfate	µg/kg	1.7 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.7 U	1.7 U	1.7 U
8081B	2385-85-5	Mirex	µg/kg	1.7 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	0.63 J Z	0.89 J Z	1.7 U
8081B	309-00-2	Aldrin	µg/kg	0.85 U	0.86 U	0.88 U	0.86 U	0.86 U	0.87 U	0.85 U	0.84 U	0.84 U
8081B	319-84-6	Alpha-Bhc	µg/kg	0.85 U	0.86 U	0.88 U	0.86 U	0.86 U	0.87 U	0.85 U	0.84 U	0.84 U
8081B	319-85-7	Beta-Bhc	µg/kg	1.9 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	1.9 U	1.9 U	1.9 UJ L
8081B	319-86-8	Delta-Bhc	µg/kg	0.85 U	0.86 U	0.88 U	0.86 U	0.86 U	0.87 U	0.85 U	0.84 U	0.84 U
8081B	33213-65-9	Endosulfan II	µg/kg	1.7 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.7 U	1.7 U	1.7 U
8081B	50-29-3	4,4'-DDT	µg/kg	0.83 J Z	5.1 U	4	0.72 J FD, Z	1.8 UJ FD	6.5	7.0 J Q	6.3	1.7 U
8081B	53494-70-5	Endrin Ketone	µg/kg	1.8 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.8 U	1.8 U	1.8 U
8081B	57-74-9	Chlordane	µg/kg	17 U	18 U	18 U	18 U	18 U	18 U	17 U	17 U	17 U
8081B	58-89-9	Gamma-Bhc (Lindane)	µg/kg	0.85 U	0.86 U	0.88 U	0.86 U	0.86 U	0.87 U	0.85 U	0.84 U	0.84 U
8081B	60-57-1	Dieldrin	µg/kg	1.7 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.7 U	1.7 U	1.7 U
8081B	72-20-8	Endrin	µg/kg	1.7 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.7 U	1.7 U	1.7 U
8081B	72-43-5	Methoxychlor	µg/kg	6.9 U	6.9 U	7.1 U	7.0 U	6.9 U	7.0 U	6.8 U	6.8 U	6.8 U
8081B	72-54-8	4,4'-DDD	µg/kg	1.7 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.7 U	1.7 U	1.7 U
8081B	72-55-9	4,4'-DDE	µg/kg	1.7 U	1.9 U	1.8 U	0.67 J FD, Z	1.4 J FD, Z	2.7	0.53 J FD, Z	1.8 UJ FD	1.7 U
8081B	7421-93-4	Endrin Aldehyde	µg/kg	1.7 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.7 U	1.7 U	1.7 U
8081B	76-44-8	Heptachlor	µg/kg	0.85 U	0.86 U	0.88 U	0.86 U	0.86 U	0.18 J Z	0.85 U	0.84 U	0.84 U
8081B	8001-35-2	Technical Toxaphene	µg/kg	34 U	34 U	35 U	34 U	34 U	35 U	34 U	34 U	33 U
8081B	959-98-8	Endosulfan I	µg/kg	0.85 U	0.86 U	0.88 U	0.86 U	0.86 U	0.87 U	0.85 U	0.84 U	0.84 U

U-Compound not detected above reporting limit
J-Result is an estimated value
R-Result is rejected if R qualifier is in first position. If R qualifier is after another qualifier, result is not rejected but qualified as estimated during validation

			Sample Name	SL-521-SA7-SB-0.0-0.5	SL-522-SA7-SB-0.0-0.5
			Sample Type	N	N
			Sample Date	04/15/2013	04/15/2013
			SDG	PH031	PH031
			Start Depth	0	0
			End Depth	0.5	0.5
Analytic Method	CAS Number	Chemical Name	Unit		
8081B	1024-57-3	Heptachlor Epoxide	µg/kg	0.85 U	0.86 U
8081B	1031-07-8	Endosulfan Sulfate	µg/kg	1.7 U	1.8 U
8081B	2385-85-5	Mirex	µg/kg	1.7 U	1.8 U
8081B	309-00-2	Aldrin	µg/kg	0.85 U	0.86 U
8081B	319-84-6	Alpha-Bhc	µg/kg	0.85 U	0.86 U
8081B	319-85-7	Beta-Bhc	µg/kg	1.9 U	2.0 U
8081B	319-86-8	Delta-Bhc	µg/kg	0.85 U	0.86 U
8081B	33213-65-9	Endosulfan II	µg/kg	1.7 U	1.8 U
8081B	50-29-3	4,4'-DDT	µg/kg	0.62 J Z, *#	1.7 J Z
8081B	53494-70-5	Endrin Ketone	µg/kg	1.8 U	1.9 U
8081B	57-74-9	Chlordane	µg/kg	17 U	18 U
8081B	58-89-9	Gamma-Bhc (Lindane)	µg/kg	0.85 U	0.86 U
8081B	60-57-1	Dieldrin	µg/kg	1.7 U	1.8 U
8081B	72-20-8	Endrin	µg/kg	1.7 U	1.8 U
8081B	72-43-5	Methoxychlor	µg/kg	6.8 U	7.0 U
8081B	72-54-8	4,4'-DDD	µg/kg	1.7 U	1.8 U
8081B	72-55-9	4,4'-DDE	µg/kg	0.80 J Z	1.5 J Z
8081B	7421-93-4	Endrin Aldehyde	µg/kg	1.7 U	1.8 U
8081B	76-44-8	Heptachlor	µg/kg	0.85 U	0.86 U
8081B	8001-35-2	Technical Toxaphene	µg/kg	34 U	34 U
8081B	959-98-8	Endosulfan I	µg/kg	0.85 U	0.86 R

U-Compound not detected above reporting limit
J-Result is an estimated value
R-Result is rejected if R qualifier is in first position. If R qualifier is after another qualifier, result is not rejected but qualified as estimated during validation

			Sample Name	SL-500-SA7-SB-0.0-0.5	SL-501-SA7-SB-0.0-0.5	SL-502-SA7-SB-0.0-0.5	SL-503-SA7-SB-0.0-0.5	SL-504-SA7-SB-0.0-0.5	SL-504-SA7-SB-4.0-5.0	SL-505-SA7-SB-0.0-0.5	SL-506-SA7-SB-0.0-0.5	SL-507-SA7-SB-0.0-0.5
			Sample Type	N	N	N	N	N	N	N	N	N
			Sample Date	04/17/2013	04/17/2013	04/17/2013	04/22/2013	04/22/2013	04/22/2013	04/17/2013	04/25/2013	04/24/2013
			SDG	PH033	PH033	PH033	PH036	PH036	PH036	PH033	PH039	PH039
			Start Depth	0	0	0	0	0	4	0	0	0
			End Depth	0.5	0.5	0.5	0.5	0.5	5	0.5	0.5	0.5
Analytic Method	CAS Number	Chemical Name	Unit									
9045M	pH	pH	pH	7.28	6.95	7.02	7.88	7.96	7.33	7.2	6.23	7.01

U-Compound not detected above reporting limit
J-Result is an estimated value
R-Result is rejected if R qualifier is in first position. If R qualifier is after another qualifier, result is not rejected but qualified as estimated during validation

			Sample Name	SL-508-SA7-SB-0.0-0.5	SL-509-SA7-SB-0.0-0.5	SL-510-SA7-SB-0.0-0.5	SL-810-SA7-SB-0.0-0.5	SL-511-SA7-SB-0.0-0.5	SL-512-SA7-SB-0.0-0.5	SL-513-SA7-SB-0.0-0.5	SL-913-SA7-SB-0.0-0.5	SL-514-SA7-SB-0.0-0.5
			Sample Type	N	N	N	FD	N	N	N	FD	N
			Sample Date	04/25/2013	04/25/2013	04/22/2013	04/22/2013	04/19/2013	04/23/2013	06/04/2013	06/04/2013	06/06/2013
			SDG	PH039	PH039	PH036	PH036	PH035	PH037	PH046	PH046	PH049
			Start Depth	0	0	0	0	0	0	0	0	0
			End Depth	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Analytic Method	CAS Number	Chemical Name	Unit									
9045M	pH	pH	pH	7.98	7.76	6.77	6.68	7.34	7.24	6.68	6.72	7.18

U-Compound not detected above reporting limit
J-Result is an estimated value
R-Result is rejected if R qualifier is in first position. If R qualifier is after another qualifier, result is not rejected but qualified as estimated during validation

			Sample Name	SL-515-SA7-SB-0.0-0.5	SL-516-SA7-SB-0.0-0.5	SL-517-SA7-SB-0.0-0.5	SL-518-SA7-SB-0.0-0.5	SL-519-SA7-SB-0.0-0.5	SL-819-SA7-SB-0.0-0.5	SL-519-SA7-SB-2.0-3.0	SL-520-SA7-SB-0.0-0.5	SL-521-SA7-SB-0.0-0.5
			Sample Type	N	N	N	N	N	FD	N	N	N
			Sample Date	06/06/2013	06/04/2013	04/22/2013	04/19/2013	04/25/2013	04/25/2013	04/25/2013	04/19/2013	04/15/2013
			SDG	PH049	PH046	PH036	PH035	PH039	PH039	PH039	PH035	PH031
			Start Depth	0	0	0	0	0	0	2	0	0
			End Depth	0.5	0.5	0.5	0.5	0.5	0.5	3	0.5	0.5
Analytic Method	CAS Number	Chemical Name	Unit									
9045M	pH	pH	pH	8.32	8.14	7.67	7.78	7.32	7.59	7.59	7.81	6.85

U-Compound not detected above reporting limit
J-Result is an estimated value
R-Result is rejected if R qualifier is in first position. If R qualifier is after another qualifier, result is not rejected but qualified as estimated during validation

			Sample Name	SL-522-SA7-SB-0.0-0.5	SL-524-SA7-SB-0.0-0.5	SL-524-SA7-SB-1.0-2.0	SL-924-SA7-SB-1.0-2.0	SL-525-SA7-SB-0.0-0.5	SL-525-SA7-SB-4.0-5.0	SL-525-SA7-SB-6.5-7.5	SL-525-SA7-SB-9.5-10.5	SL-526-SA7-SB-0.0-0.5
			Sample Type	N	N	N	FD	N	N	N	N	N
			Sample Date	04/15/2013	06/04/2013	06/04/2013	06/04/2013	04/23/2013	06/03/2013	04/24/2013	06/03/2013	04/23/2013
			SDG	PH031	PH046	PH046	PH046	PH037	PH045	PH038	PH045	PH037
			Start Depth	0	0	1	1	0	4	6.5	9.5	0
			End Depth	0.5	0.5	2	2	0.5	5	7.5	10.5	0.5
Analytic Method	CAS Number	Chemical Name	Unit									
9045M	pH	pH	pH	6.84	8.25	8.18	8.3	6.66	7.14	7.06	7.11	7.26

U-Compound not detected above reporting limit
J-Result is an estimated value
R-Result is rejected if R qualifier is in first position. If R qualifier is after another qualifier, result is not rejected but qualified as estimated during validation

			Sample Name	SL-526-SA7-SB-3.5-4.5	SL-526-SA7-SB-9.0-10.0	SL-527-SA7-SB-0.0-0.5	SL-527-SA7-SB-2.5-3.5	SL-528-SA7-SB-0.0-0.5	SL-529-SA7-SB-0.0-0.5	SL-530-SA7-SB-0.0-0.5	SL-531-SA7-SB-0.0-0.5	SL-532-SA7-SB-0.0-0.5
			Sample Type	N	N	N	N	N	N	N	N	N
			Sample Date	04/23/2013	06/03/2013	04/24/2013	04/24/2013	04/24/2013	04/24/2013	04/18/2013	04/18/2013	04/18/2013
			SDG	PH037	PH045	PH038	PH038	PH038	PH038	PH034	PH034	PH034
			Start Depth	3.5	9	0	2.5	0	0	0	0	0
			End Depth	4.5	10	0.5	3.5	0.5	0.5	0.5	0.5	0.5
Analytic Method	CAS Number	Chemical Name	Unit									
9045M	pH	pH	pH	6.78	6.98	6.54	6.4	6.63	6.06	7.38	6.85	7.11

U-Compound not detected above reporting limit
J-Result is an estimated value
R-Result is rejected if R qualifier is in first position. If R qualifier is after another qualifier, result is not rejected but qualified as estimated during validation

			Sample Name	SL-532-SA7-SB-3.0-4.0	SL-533-SA7-SB-0.0-0.5	SL-533-SA7-SB-2.5-3.5	SL-534-SA7-SB-0.0-0.5	SL-534-SA7-SB-5.5-6.5	SL-535-SA7-SB-0.0-0.5	SL-535-SA7-SB-4.0-5.0	SL-535-SA7-SB-9.0-10.0	SL-536-SA7-SB-0.0-0.5
			Sample Type	N	N	N	N	N	N	N	N	N
			Sample Date	06/03/2013	04/18/2013	06/03/2013	04/12/2013	04/15/2013	04/12/2013	04/12/2013	04/12/2013	04/11/2013
			SDG	PH045	PH034	PH045	PH030	PH031	PH030	PH030	PH030	PH029
			Start Depth	3	0	2.5	0	5.5	0	4	9	0
			End Depth	4	0.5	3.5	0.5	6.5	0.5	5	10	0.5
Analytic Method	CAS Number	Chemical Name	Unit									
9045M	pH	pH	pH	7.06	6.99	6.49	7.58	7.09	7.53	7.4	7.45	7.42

U-Compound not detected above reporting limit
J-Result is an estimated value
R-Result is rejected if R qualifier is in first position. If R qualifier is after another qualifier, result is not rejected but qualified as estimated during validation

			Sample Name	SL-536-SA7-SB-3.0-4.0	SL-836-SA7-SB-3.0-4.0	SL-537-SA7-SB-0.0-0.5	SL-538-SA7-SB-0.0-0.5	SL-539-SA7-SB-0.0-0.5	SL-541-SA7-SB-0.0-0.5	SL-541-SA7-SB-2.0-3.0	SL-542-SA7-SB-0.0-0.5	SL-544-SA7-SB-0.0-0.5
			Sample Type	N	FD	N	N	N	N	N	N	N
			Sample Date	04/12/2013	04/12/2013	04/15/2013	04/15/2013	04/08/2013	10/02/2013	10/02/2013	04/09/2013	04/09/2013
			SDG	PH030	PH030	PH031	PH031	PH027	PH121	PH121	PH027	PH027
			Start Depth	3	3	0	0	0	0	2	0	0
			End Depth	4	4	0.5	0.5	0.5	0.5	3	0.5	0.5
Analytic Method	CAS Number	Chemical Name	Unit									
9045M	pH	pH	pH	7.71	7.92	7.43	7.5	7.59	8.06	8.27	8.34	7.67

U-Compound not detected above reporting limit
J-Result is an estimated value
R-Result is rejected if R qualifier is in first position. If R qualifier is after another qualifier, result is not rejected but qualified as estimated during validation

			Sample Name	SL-547-SA7-SB-0.0-0.5	SL-548-SA7-SB-0.0-0.5	SL-549-SA7-SB-0.0-0.5	SL-551-SA7-SB-0.0-0.5	SL-551-SA7-SB-2.0-3.0	SL-552-SA7-SB-0.0-0.5	SL-553-SA7-SB-0.0-0.5	SL-554-SA7-SB-0.0-0.5	SL-555-SA7-SB-0.0-0.5
			Sample Type	N	N	N	N	N	N	N	N	N
			Sample Date	04/09/2013	04/10/2013	04/10/2013	04/10/2013	04/10/2013	04/10/2013	04/11/2013	04/11/2013	04/11/2013
			SDG	PH028	PH028	PH028	PH028	PH028	PH028	PH029	PH029	PH029
			Start Depth	0	0	0	0	2	0	0	0	0
			End Depth	0.5	0.5	0.5	0.5	3	0.5	0.5	0.5	0.5
Analytic Method	CAS Number	Chemical Name	Unit									
9045M	pH	pH	pH	5.94	7.49	7.71	7.74	7.45	7.33	7.9	7.18	7.79

U-Compound not detected above reporting limit
J-Result is an estimated value
R-Result is rejected if R qualifier is in first position. If R qualifier is after another qualifier, result is not rejected but qualified as estimated during validation

			Sample Name	SL-557-SA7-SB-0.0-0.5	SL-558-SA7-SB-0.0-0.5	SL-558-SA7-SB-3.0-4.0	SL-559-SA7-SB-0.0-0.5	SL-559-SA7-SB-2.0-3.0	SL-560-SA7-SB-0.0-0.5	SL-560-SA7-SB-3.0-4.0	SL-561-SA7-SB-0.0-0.5	SL-562-SA7-SB-0.0-0.5
			Sample Type	N	N	N	N	N	N	N	N	N
			Sample Date	04/17/2013	04/16/2013	04/17/2013	04/16/2013	04/16/2013	04/16/2013	04/16/2013	04/16/2013	04/26/2013
			SDG	PH033	PH032	PH033	PH032	PH032	PH032	PH032	PH032	PH040
			Start Depth	0	0	3	0	2	0	3	0	0
			End Depth	0.5	0.5	4	0.5	3	0.5	4	0.5	0.5
Analytic Method	CAS Number	Chemical Name	Unit									
9045M	pH	pH	pH	6.76	7.39	7.43	6.48	7.87	7.94	7.92	7.06	7.34

U-Compound not detected above reporting limit
J-Result is an estimated value
R-Result is rejected if R qualifier is in first position. If R qualifier is after another qualifier, result is not rejected but qualified as estimated during validation

			Sample Name	SL-562-SA7-SB-2.0-3.0
			Sample Type	N
			Sample Date	04/26/2013
			SDG	PH040
			Start Depth	2
			End Depth	3
Analytic Method	CAS Number	Chemical Name	Unit	
9045M	pH	pH	pH	8.12

U-Compound not detected above reporting limit
J-Result is an estimated value
R-Result is rejected if R qualifier is in first position. If R qualifier is after another qualifier, result is not rejected but qualified as estimated during validation

			Sample Name	SL-500-SA7-SB-0.0-0.5	SL-501-SA7-SB-0.0-0.5	SL-502-SA7-SB-0.0-0.5	SL-503-SA7-SB-0.0-0.5	SL-504-SA7-SB-0.0-0.5	SL-504-SA7-SB-4.0-5.0	SL-505-SA7-SB-0.0-0.5	SL-506-SA7-SB-0.0-0.5	SL-507-SA7-SB-0.0-0.5
			Sample Type	N	N	N	N	N	N	N	N	N
			Sample Date	04/17/2013	04/17/2013	04/17/2013	04/22/2013	04/22/2013	04/22/2013	04/17/2013	04/25/2013	04/24/2013
			SDG	PH033	PH033	PH033	PH036	PH036	PH036	PH033	PH039	PH039
			Start Depth	0	0	0	0	0	4	0	0	0
			End Depth	0.5	0.5	0.5	0.5	0.5	5	0.5	0.5	0.5
Analytic Method	CAS Number	Chemical Name	Unit									
8015M	PHCC12C14	EFH (C12-C14)	mg/kg	5.1 U	5.1 U	5.2 U	5.1 U	26 U	5.3 U	5.1 U	5.2 U	5.2 U
8015M	PHCC15C20	EFH (C15-C20)	mg/kg	5.1 U	5.1 U	2.1 J Z	2.3 J Z	26 U	4.7 J Z	2.3 J Z	2.8 J Z	5.2 U
8015M	PHCC21C30	EFH (C21-C30)	mg/kg	16	7.5	11	13	77	57	19	20	9.1
8015M	PHCC30C40	EFH (C30-C40)	mg/kg	39	27	27	48 J L	230 J L	77 J L	98	40 J L	23 J L
8015M	PHCC8C11	EFH (C8-C11)	mg/kg	5.1 U	5.1 U	5.2 U	5.1 U	26 U	5.3 U	5.1 U	5.2 U	5.2 U

U-Compound not detected above reporting limit
J-Result is an estimated value
R-Result is rejected if R qualifier is in first position. If R qualifier is after another qualifier, result is not rejected but qualified as estimated during validation

			Sample Name	SL-508-SA7-SB-0.0-0.5	SL-509-SA7-SB-0.0-0.5	SL-510-SA7-SB-0.0-0.5	SL-810-SA7-SB-0.0-0.5	SL-511-SA7-SB-0.0-0.5	SL-512-SA7-SB-0.0-0.5	SL-513-SA7-SB-0.0-0.5	SL-913-SA7-SB-0.0-0.5	SL-514-SA7-SB-0.0-0.5
			Sample Type	N	N	N	FD	N	N	N	FD	N
			Sample Date	04/25/2013	04/25/2013	04/22/2013	04/22/2013	04/19/2013	04/23/2013	06/04/2013	06/04/2013	06/06/2013
			SDG	PH039	PH039	PH036	PH036	PH035	PH037	PH046	PH046	PH049
			Start Depth	0	0	0	0	0	0	0	0	0
			End Depth	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Analytic Method	CAS Number	Chemical Name	Unit									
8015M	PHCC12C14	EFH (C12-C14)	mg/kg	5.1 U	26 U	5.2 U	5.2 U	5.2 U	5.1 U	25 U	50 U	10 U
8015M	PHCC15C20	EFH (C15-C20)	mg/kg	5.1 U	26 U	5.2 U	5.2 U	3.5 J Z	5.1 U	25 U	50 U	10 U
8015M	PHCC21C30	EFH (C21-C30)	mg/kg	25	52	6.9 J FD, Q	13 J FD	28	7.8	100	160	46
8015M	PHCC30C40	EFH (C30-C40)	mg/kg	42 J L	140 J L	21 J FD, L	39 J FD, L	66 J L	29 J L	160 J FD	350 J FD	100
8015M	PHCC8C11	EFH (C8-C11)	mg/kg	5.1 U	26 U	5.2 U	5.2 U	5.2 U	5.1 U	25 U	50 U	10 U

U-Compound not detected above reporting limit
J-Result is an estimated value
R-Result is rejected if R qualifier is in first position. If R qualifier is after another qualifier, result is not rejected but qualified as estimated during validation

			Sample Name	SL-515-SA7-SB-0.0-0.5	SL-516-SA7-SB-0.0-0.5	SL-517-SA7-SB-0.0-0.5	SL-518-SA7-SB-0.0-0.5	SL-519-SA7-SB-0.0-0.5	SL-819-SA7-SB-0.0-0.5	SL-519-SA7-SB-2.0-3.0	SL-520-SA7-SB-0.0-0.5	SL-521-SA7-SB-0.0-0.5
			Sample Type	N	N	N	N	N	FD	N	N	N
			Sample Date	06/06/2013	06/04/2013	04/22/2013	04/19/2013	04/25/2013	04/25/2013	04/25/2013	04/19/2013	04/15/2013
			SDG	PH049	PH046	PH036	PH035	PH039	PH039	PH039	PH035	PH031
			Start Depth	0	0	0	0	0	0	2	0	0
			End Depth	0.5	0.5	0.5	0.5	0.5	0.5	3	0.5	0.5
Analytic Method	CAS Number	Chemical Name	Unit									
8015M	PHCC12C14	EFH (C12-C14)	mg/kg	5.1 U	5.1 U	5.1 U	5.1 U	2.5 J FD, Q, Z	5.2 UJ FD	5.2 U	5.1 U	5.1 U
8015M	PHCC15C20	EFH (C15-C20)	mg/kg	5.1 U	5.1 U	5.1 U	5.1 U	14	14	9.2	5.1 U	5.1 U
8015M	PHCC21C30	EFH (C21-C30)	mg/kg	5.1 U	3.4 J Z	9.5	6.2	41	56	40	10	7
8015M	PHCC30C40	EFH (C30-C40)	mg/kg	10 U	4.8 J Z	29 J L	35 J L	95 J L	79 J L	51 J L	21 J L	14
8015M	PHCC8C11	EFH (C8-C11)	mg/kg	5.1 U	5.1 U	5.1 U	5.1 U	3.0 J FD, Q, Z	5.2 UJ FD	5.2 U	5.1 U	5.1 U

U-Compound not detected above reporting limit
J-Result is an estimated value
R-Result is rejected if R qualifier is in first position. If R qualifier is after another qualifier, result is not rejected but qualified as estimated during validation

			Sample Name	SL-522-SA7-SB-0.0-0.5	SL-524-SA7-SB-0.0-0.5	SL-524-SA7-SB-1.0-2.0	SL-924-SA7-SB-1.0-2.0	SL-525-SA7-SB-0.0-0.5	SL-525-SA7-SB-4.0-5.0	SL-525-SA7-SB-6.5-7.5	SL-525-SA7-SB-9.5-10.5	SL-526-SA7-SB-0.0-0.5
			Sample Type	N	N	N	FD	N	N	N	N	N
			Sample Date	04/15/2013	06/04/2013	06/04/2013	06/04/2013	04/23/2013	06/03/2013	04/24/2013	06/03/2013	04/23/2013
			SDG	PH031	PH046	PH046	PH046	PH037	PH045	PH038	PH045	PH037
			Start Depth	0	0	1	1	0	4	6.5	9.5	0
			End Depth	0.5	0.5	2	2	0.5	5	7.5	10.5	0.5
Analytic Method	CAS Number	Chemical Name	Unit									
8015M	PHCC12C14	EFH (C12-C14)	mg/kg	5.2 U	11 U	5.4 U	5.4 U	26 U	5.2 U	5.3 U	5.2 U	5.5 U
8015M	PHCC15C20	EFH (C15-C20)	mg/kg	2.2 J Z	11 U	5.4 U	5.4 U	26 U	5.2 U	4.4 J Z	5.2 U	5.5 U
8015M	PHCC21C30	EFH (C21-C30)	mg/kg	16	28	12 J Q	14	23 J Z	7.8	59	5.2 U	15
8015M	PHCC30C40	EFH (C30-C40)	mg/kg	32	120	23	36	72 J L	11	81 J L	5.8 J Z	27 J L
8015M	PHCC8C11	EFH (C8-C11)	mg/kg	5.2 U	11 U	5.4 U	5.4 U	26 U	5.2 U	5.3 U	5.2 U	5.5 U

U-Compound not detected above reporting limit
J-Result is an estimated value
R-Result is rejected if R qualifier is in first position. If R qualifier is after another qualifier, result is not rejected but qualified as estimated during validation

			Sample Name	SL-526-SA7-SB-3.5-4.5	SL-526-SA7-SB-9.0-10.0	SL-527-SA7-SB-0.0-0.5	SL-527-SA7-SB-2.5-3.5	SL-528-SA7-SB-0.0-0.5	SL-529-SA7-SB-0.0-0.5	SL-530-SA7-SB-0.0-0.5	SL-531-SA7-SB-0.0-0.5	SL-532-SA7-SB-0.0-0.5
			Sample Type	N	N	N	N	N	N	N	N	N
			Sample Date	04/23/2013	06/03/2013	04/24/2013	04/24/2013	04/24/2013	04/24/2013	04/18/2013	04/18/2013	04/18/2013
			SDG	PH037	PH045	PH038	PH038	PH038	PH038	PH034	PH034	PH034
			Start Depth	3.5	9	0	2.5	0	0	0	0	0
			End Depth	4.5	10	0.5	3.5	0.5	0.5	0.5	0.5	0.5
Analytic Method	CAS Number	Chemical Name	Unit									
8015M	PHCC12C14	EFH (C12-C14)	mg/kg	5.4 U	5.4 U	5.2 U	5.2 U	5.1 U	5.2 U	5.1 U	5.1 U	5.1 U
8015M	PHCC15C20	EFH (C15-C20)	mg/kg	5.4 U	5.4 U	5.2 U	5.2 U	5.1 U	5.2 U	5.1 U	4.9 J Z	5.1 U
8015M	PHCC21C30	EFH (C21-C30)	mg/kg	9.2	5.4 U	5.6	3.1 J Z	3.0 J Z	5.0 J Z	15	25	14
8015M	PHCC30C40	EFH (C30-C40)	mg/kg	24 J L	11 U	7.8 J L, Z	8.8 J L, Z	8.3 J L, Z	11 J L	44 J L	84 J L	40 J L
8015M	PHCC8C11	EFH (C8-C11)	mg/kg	5.4 U	5.4 U	5.2 U	5.2 U	5.1 U	5.2 U	5.1 U	5.1 U	5.1 U

U-Compound not detected above reporting limit
J-Result is an estimated value
R-Result is rejected if R qualifier is in first position. If R qualifier is after another qualifier, result is not rejected but qualified as estimated during validation

			Sample Name	SL-532-SA7-SB-3.0-4.0	SL-533-SA7-SB-0.0-0.5	SL-533-SA7-SB-2.5-3.5	SL-534-SA7-SB-0.0-0.5	SL-534-SA7-SB-5.5-6.5	SL-535-SA7-SB-0.0-0.5	SL-535-SA7-SB-4.0-5.0	SL-535-SA7-SB-9.0-10.0	SL-536-SA7-SB-0.0-0.5
			Sample Type	N	N	N	N	N	N	N	N	N
			Sample Date	06/03/2013	04/18/2013	06/03/2013	04/12/2013	04/15/2013	04/12/2013	04/12/2013	04/12/2013	04/11/2013
			SDG	PH045	PH034	PH045	PH030	PH031	PH030	PH030	PH030	PH029
			Start Depth	3	0	2.5	0	5.5	0	4	9	0
			End Depth	4	0.5	3.5	0.5	6.5	0.5	5	10	0.5
Analytic Method	CAS Number	Chemical Name	Unit									
8015M	PHCC12C14	EFH (C12-C14)	mg/kg	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.1 U	5.2 U	5.2 U	5.1 U
8015M	PHCC15C20	EFH (C15-C20)	mg/kg	5.2 U	5.2 U	5.2 U	3.6 J Z	2.8 J Z	3.5 J Z	5.2 U	5.2 U	2.2 J Z
8015M	PHCC21C30	EFH (C21-C30)	mg/kg	6.5	9.7	2.6 J Z	13	8.1 J Q	13	5.2 U	5.2 U	18
8015M	PHCC30C40	EFH (C30-C40)	mg/kg	15	26 J L	5.6 J Z	32	12 J Q	28	10 U	10 U	55
8015M	PHCC8C11	EFH (C8-C11)	mg/kg	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.1 U	5.2 U	5.2 U	5.1 U

U-Compound not detected above reporting limit
J-Result is an estimated value
R-Result is rejected if R qualifier is in first position. If R qualifier is after another qualifier, result is not rejected but qualified as estimated during validation

			Sample Name	SL-536-SA7-SB-3.0-4.0	SL-836-SA7-SB-3.0-4.0	SL-537-SA7-SB-0.0-0.5	SL-538-SA7-SB-0.0-0.5	SL-539-SA7-SB-0.0-0.5	SL-540-SA7-SB-0.0-0.5	SL-840-SA7-SB-0.0-0.5	SL-541-SA7-SB-0.0-0.5	SL-541-SA7-SB-2.0-3.0
			Sample Type	N	FD	N	N	N	N	FD	N	N
			Sample Date	04/12/2013	04/12/2013	04/15/2013	04/15/2013	04/08/2013	04/09/2013	04/09/2013	10/02/2013	10/02/2013
			SDG	PH030	PH030	PH031	PH031	PH027	PH027	PH027	PH121	PH121
			Start Depth	3	3	0	0	0	0	0	0	2
			End Depth	4	4	0.5	0.5	0.5	0.5	0.5	0.5	3
Analytic Method	CAS Number	Chemical Name	Unit									
8015M	PHCC12C14	EFH (C12-C14)	mg/kg	5.1 U	5.1 U	5.1 U	5.1 U	51 U	5.1 U	5.1 U	5.3 U	5.1 U
8015M	PHCC15C20	EFH (C15-C20)	mg/kg	5.1 U	5.1 U	5.1 U	5.1 U	51 U	3.0 J Q, Z	4.3 J Z	5.3 U	5.1 U
8015M	PHCC21C30	EFH (C21-C30)	mg/kg	6.7 J FD, Q	5.1 UJ FD	6	18	140	4.9 J Z	7	4.5 J Z	3.0 J Z
8015M	PHCC30C40	EFH (C30-C40)	mg/kg	14 J FD, Q	10 UJ FD	12	34	700	17 J FD, Q	46 J FD	18	13
8015M	PHCC8C11	EFH (C8-C11)	mg/kg	5.1 U	5.1 U	5.1 U	5.1 U	51 U	5.1 U	5.1 U	5.3 U	5.1 U

U-Compound not detected above reporting limit
J-Result is an estimated value
R-Result is rejected if R qualifier is in first position. If R qualifier is after another qualifier, result is not rejected but qualified as estimated during validation

			Sample Name	SL-542-SA7-SB-0.0-0.5	SL-544-SA7-SB-0.0-0.5	SL-547-SA7-SB-0.0-0.5	SL-548-SA7-SB-0.0-0.5	SL-549-SA7-SB-0.0-0.5	SL-551-SA7-SB-0.0-0.5	SL-551-SA7-SB-2.0-3.0	SL-552-SA7-SB-0.0-0.5	SL-553-SA7-SB-0.0-0.5
			Sample Type	N	N	N	N	N	N	N	N	N
			Sample Date	04/09/2013	04/09/2013	04/09/2013	04/10/2013	04/10/2013	04/10/2013	04/10/2013	04/10/2013	04/11/2013
			SDG	PH027	PH027	PH028	PH028	PH028	PH028	PH028	PH028	PH029
			Start Depth	0	0	0	0	0	0	2	0	0
			End Depth	0.5	0.5	0.5	0.5	0.5	0.5	3	0.5	0.5
Analytic Method	CAS Number	Chemical Name	Unit									
8015M	PHCC12C14	EFH (C12-C14)	mg/kg	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.2 U	5.2 U	5.2 U	5.1 U
8015M	PHCC15C20	EFH (C15-C20)	mg/kg	3.5 J Z	5.4	5.1 U	2.2 J Z	5.1 U	5.2 U	2.3 J Z	2.2 J Z	5.1 U
8015M	PHCC21C30	EFH (C21-C30)	mg/kg	7.6	11	4.7 J Z	16	10	13	15	4.6 J Z	11
8015M	PHCC30C40	EFH (C30-C40)	mg/kg	53	54	9.6 J Z	39	33	29	48	11	16
8015M	PHCC8C11	EFH (C8-C11)	mg/kg	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	5.2 U	5.2 U	5.2 U	5.1 U

U-Compound not detected above reporting limit
J-Result is an estimated value
R-Result is rejected if R qualifier is in first position. If R qualifier is after another qualifier, result is not rejected but qualified as estimated during validation

			Sample Name	SL-554-SA7-SB-0.0-0.5	SL-555-SA7-SB-0.0-0.5	SL-557-SA7-SB-0.0-0.5	SL-558-SA7-SB-0.0-0.5	SL-558-SA7-SB-3.0-4.0	SL-559-SA7-SB-0.0-0.5	SL-559-SA7-SB-2.0-3.0	SL-560-SA7-SB-0.0-0.5	SL-560-SA7-SB-3.0-4.0
			Sample Type	N	N	N	N	N	N	N	N	N
			Sample Date	04/11/2013	04/11/2013	04/17/2013	04/16/2013	04/17/2013	04/16/2013	04/16/2013	04/16/2013	04/16/2013
			SDG	PH029	PH029	PH033	PH032	PH033	PH032	PH032	PH032	PH032
			Start Depth	0	0	0	0	3	0	2	0	3
			End Depth	0.5	0.5	0.5	0.5	4	0.5	3	0.5	4
Analytic Method	CAS Number	Chemical Name	Unit									
8015M	PHCC12C14	EFH (C12-C14)	mg/kg	520 U	1100 U	5.2 U	5.1 U	5.2 U	100 U	110 U	5.3 U	5.6 U
8015M	PHCC15C20	EFH (C15-C20)	mg/kg	520 U	1100 U	5.2 U	5.1 U	5.2 U	100 U	110 U	3.0 J Z	5.6 U
8015M	PHCC21C30	EFH (C21-C30)	mg/kg	1500	2100	17	28	5.2 U	140	84 J Z	22	10
8015M	PHCC30C40	EFH (C30-C40)	mg/kg	4100	5100	28	36	10 U	440	420	72	27
8015M	PHCC8C11	EFH (C8-C11)	mg/kg	520 U	1100 U	5.2 U	5.1 U	5.2 U	100 U	110 U	5.3 U	5.6 U

U-Compound not detected above reporting limit
J-Result is an estimated value
R-Result is rejected if R qualifier is in first position. If R qualifier is after another qualifier, result is not rejected but qualified as estimated during validation

			Sample Name	SL-561-SA7-SB-0.0-0.5	SL-562-SA7-SB-0.0-0.5	SL-562-SA7-SB-2.0-3.0
			Sample Type	N	N	N
			Sample Date	04/16/2013	04/26/2013	04/26/2013
			SDG	PH032	PH040	PH040
			Start Depth	0	0	2
			End Depth	0.5	0.5	3
Analytic Method	CAS Number	Chemical Name	Unit			
8015M	PHCC12C14	EFH (C12-C14)	mg/kg	26 U	26 U	26 U
8015M	PHCC15C20	EFH (C15-C20)	mg/kg	11 J Z	26 U	26 U
8015M	PHCC21C30	EFH (C21-C30)	mg/kg	52	48	82
8015M	PHCC30C40	EFH (C30-C40)	mg/kg	230	130 J L	220 J L
8015M	PHCC8C11	EFH (C8-C11)	mg/kg	26 U	26 U	26 U

U-Compound not detected above reporting limit
J-Result is an estimated value
R-Result is rejected if R qualifier is in first position. If R qualifier is after another qualifier, result is not rejected but qualified as estimated during validation

			Sample Name	SL-504-SA7-SB-4.0-5.0	SL-519-SA7-SB-2.0-3.0	SL-524-SA7-SB-1.0-2.0	SL-924-SA7-SB-1.0-2.0	SL-525-SA7-SB-4.0-5.0	SL-525-SA7-SB-6.5-7.5	SL-525-SA7-SB-9.5-10.5	SL-526-SA7-SB-3.5-4.5
			Sample Type	N	N	N	FD	N	N	N	N
			Sample Date	04/22/2013	04/25/2013	06/04/2013	06/04/2013	06/03/2013	04/24/2013	06/03/2013	04/23/2013
			SDG	PH036	PH039	PH046	PH046	PH045	PH038	PH045	PH037
			Start Depth	4	2	1	1	4	6.5	9.5	3.5
			End Depth	5	3	2	2	5	7.5	10.5	4.5
Analytic Method	CAS Number	Chemical Name	Unit								
8015M	GROC5C12	Gasoline Range Organics (C5-C12)	mg/kg	1 U	1.4	1 U	1.0 U	1.1 U	1.2 U	1 U	1.6 U

U-Compound not detected above reporting limit
J-Result is an estimated value
R-Result is rejected if R qualifier is in first position. If R qualifier is after another qualifier, result is not rejected but qualified as estimated during validation

			Sample Name	SL-526-SA7-SB-9.0-10.0	SL-527-SA7-SB-2.5-3.5	SL-532-SA7-SB-3.0-4.0	SL-533-SA7-SB-2.5-3.5	SL-534-SA7-SB-5.5-6.5	SL-535-SA7-SB-4.0-5.0	SL-535-SA7-SB-9.0-10.0	SL-536-SA7-SB-3.0-4.0
			Sample Type	N	N	N	N	N	N	N	N
			Sample Date	06/03/2013	04/24/2013	06/03/2013	06/03/2013	04/15/2013	04/12/2013	04/12/2013	04/12/2013
			SDG	PH045	PH038	PH045	PH045	PH031	PH030	PH030	PH030
			Start Depth	9	2.5	3	2.5	5.5	4	9	3
			End Depth	10	3.5	4	3.5	6.5	5	10	4
Analytic Method	CAS Number	Chemical Name	Unit								
8015M	GROC5C12	Gasoline Range Organics (C5-C12)	mg/kg	1.1 U	0.3 J Z	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.0 U

U-Compound not detected above reporting limit
J-Result is an estimated value
R-Result is rejected if R qualifier is in first position. If R qualifier is after another qualifier, result is not rejected but qualified as estimated during validation

			Sample Name	SL-836-SA7-SB-3.0-4.0	SL-541-SA7-SB-2.0-3.0	SL-551-SA7-SB-2.0-3.0	SL-558-SA7-SB-3.0-4.0	SL-559-SA7-SB-2.0-3.0	SL-560-SA7-SB-3.0-4.0	SL-562-SA7-SB-2.0-3.0
			Sample Type	FD	N	N	N	N	N	N
			Sample Date	04/12/2013	10/02/2013	04/10/2013	04/17/2013	04/16/2013	04/16/2013	04/26/2013
			SDG	PH030	PH121	PH028	PH033	PH032	PH032	PH040
			Start Depth	3	2	2	3	2	3	2
			End Depth	4	3	3	4	3	4	3
Analytic Method	CAS Number	Chemical Name	Unit							
8015M	GROC5C12	Gasoline Range Organics (C5-C12)	mg/kg	1.0 U	0.9 U	1.1 U	1.1 U	1.1 U	1.2 U	1.2 U

U-Compound not detected above reporting limit
J-Result is an estimated value
R-Result is rejected if R qualifier is in first position. If R qualifier is after another qualifier, result is not rejected but qualified as estimated during validation

			Sample Name	SL-545-NBZ-SB-0.0-0.5	SL-845-NBZ-SB-0.0-0.5
			Sample Type	N	FD
			Sample Date	12/04/2013	12/04/2013
			SDG	PH139	PH139
			Start Depth	0	0
			End Depth	0.5	0.5
Analytic Method	CAS Number	Chemical Name	Unit		
9012B	57-12-5	Cyanide	mg/kg	0.52 U	0.53 U

U-Compound not detected above reporting limit
J-Result is an estimated value
R-Result is rejected if R qualifier is in first position. If R qualifier is after another qualifier, result is not rejected but qualified as estimated during validation

			Sample Name	SL-505-NBZ-SB-0.0-0.5		SL-508-NBZ-SB-0.0-0.5		SL-508-NBZ-SB-4.0-5.0		SL-509-NBZ-SB-0.0-0.5		SL-509-NBZ-SB-2.5-3.5		SL-809-NBZ-SB-2.5-3.5		SL-510-NBZ-SB-0.0-0.5	
			Sample Type	N		N		N		N		N		FD		N	
			Sample Date	12/13/2013		12/04/2013		12/04/2013		12/03/2013		12/03/2013		12/03/2013		12/03/2013	
			SDG	PH151		PH139		PH139		PH138		PH138		PH138		PH138	
			Start Depth	0		0		4		0		2.5		2.5		0	
			End Depth	0.5		0.5		5		0.5		3.5		3.5		0.5	
Analytic Method	CAS Number	Chemical Name	Unit														
1613B	1746-01-6	2,3,7,8-TCDD	ng/kg	0.0807	J-EMPC J (Z)	1.1	J-EMPC U (B)	1.1	U	0.996	J-EMPC U (B)	1.04	U	1.03	U	1.03	U (B)
1613B	19408-74-3	1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	ng/kg	0.419	J (Z)	5.51	J-EMPC U (B)	5.5	J-EMPC U (B)	4.98	J-EMPC U (B)	5.18	J-EMPC U (B)	5.17	J-EMPC U (B)	5.17	J-EMPC U (B)
1613B	3268-87-9	OCDD	ng/kg	24		11	U (B)	11	U (B)	9.96	U (B)	10.4	UJ (B, FD)	10.3	J-EMPC UJ (B, FD)	10.3	U (B)
1613B	35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	ng/kg	3.44	J (Z)	5.51	U (B)	5.5	J-EMPC U (B)	4.98	J-EMPC U (B)	5.18	UJ (B, FD)	5.17	J-EMPC UJ (B, FD)	5.17	J-EMPC U (B)
1613B	39001-02-0	OCDF	ng/kg	1.79	J (Z)	11	U (B)	11	U (B)	9.96	J-EMPC U (B)	10.4	J-EMPC U (B)	10.3	J-EMPC U (B)	10.3	J-EMPC U (B)
1613B	39227-28-6	1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	ng/kg	5.24	U (B)	5.51	J-EMPC U (B)	5.5	U	4.98	U	5.18	J-EMPC UJ (B, FD)	5.17	J-EMPC UJ (B, FD)	5.17	U
1613B	40321-76-4	1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	ng/kg	5.24	J-EMPC U (B)	5.51	U	5.5	U	4.98	U	5.18	UJ (FD)	0.107	J-EMPC J (FD, Z)	0.0784	J-EMPC J (Z)
1613B	51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	ng/kg	0.44	J-EMPC J (Z)	1.1	J-EMPC U (B)	1.1	J-EMPC U (B)	0.996	U	1.04	U	1.03	U	0.081	J-EMPC J (Z)
1613B	55673-89-7	1,2,3,4,7,8,9-HPCDF	ng/kg	5.24	J-EMPC U (B)	5.51	U (B)	5.5	J-EMPC U (B)	4.98	J-EMPC U (B)	5.18	J-EMPC UJ (B, FD)	5.17	J-EMPC UJ (B, FD)	5.17	J-EMPC U (B)
1613B	57117-31-4	2,3,4,7,8-PECDF	ng/kg	0.608	J (Z)	5.51	J-EMPC U (B)	5.5	J-EMPC U (B)	4.98	U	5.18	J-EMPC U (B)	5.17	J-EMPC U (B)	5.17	J-EMPC U (B)
1613B	57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	ng/kg	0.718	J (Z)	5.51	U (B)	5.5	J-EMPC U (B)	4.98	J-EMPC U (B)	5.18	J-EMPC U (B)	5.17	J-EMPC U (B)	5.17	U (B)
1613B	57117-44-9	1,2,3,6,7,8-HXCDF	ng/kg	5.24	J-EMPC U (B)	5.51	U (B)	5.5	U	4.98	J-EMPC U (B)	5.18	UJ (FD)	5.17	UJ (B, FD)	5.17	U
1613B	57653-85-7	1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	ng/kg	0.394	J (Z)	5.51	J-EMPC U (B)	5.5	U (B)	4.98	J-EMPC U (B)	5.18	J-EMPC UJ (B, FD)	5.17	J-EMPC UJ (B, FD)	5.17	J-EMPC U (B)
1613B	60851-34-5	2,3,4,6,7,8-HXCDF	ng/kg	0.272	J-EMPC J (Z)	5.51	U (B)	5.5	J-EMPC U (B)	4.98	J-EMPC U (B)	5.18	UJ (FD)	5.17	UJ (B, FD)	5.17	J-EMPC U (B)
1613B	67562-39-4	1,2,3,4,6,7,8-HPCDF	ng/kg	1.08	J (Z)	5.51	U (B)	5.5	J-EMPC U (B)	4.98	J-EMPC U (B)	5.18	UJ (B, FD)	5.17	J-EMPC UJ (B, FD)	5.17	J-EMPC U (B)
1613B	70648-26-9	1,2,3,4,7,8-HXCDF	ng/kg	5.24	U (B)	5.51	J-EMPC U (B)	5.5	J-EMPC U (B)	0.831	J (Z)	5.18	J-EMPC U (B)	5.17	U (B)	5.17	U (B)
1613B	72918-21-9	1,2,3,7,8,9-HXCDF	ng/kg	5.24	U (B)	5.51	J-EMPC U (B)	5.5	J-EMPC U (B)	4.98	U (B)	5.18	UJ (FD)	5.17	J-EMPC UJ (B, FD)	5.17	J-EMPC U (B)

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

			Sample Name	SL-510-NBZ-SB-4.0-5.0		SL-511-NBZ-SB-0.0-0.5		SL-511-NBZ-SB-2.5-3.5		SL-512-NBZ-SB-0.0-0.5		SL-516-NBZ-SB-0.0-0.5		SL-516-NBZ-SB-4.0-5.0		SL-517-NBZ-SB-0.0-0.5	
			Sample Type	N		N		N		N		N		N		N	
			Sample Date	12/03/2013		12/04/2013		12/04/2013		12/06/2013		12/09/2013		12/09/2013		12/16/2013	
			SDG	PH138		PH139		PH139		PH141		PH142		PH142		PH155	
			Start Depth	4		0		2.5		0		0		4		0	
			End Depth	5		0.5		3.5		0.5		0.5		5		0.5	
Analytic Method	CAS Number	Chemical Name	Unit														
1613B	1746-01-6	2,3,7,8-TCDD	ng/kg	1.06	U	1	U	1.01	U	0.999	U	1.03	U	1.02	U	0.0989	J-EMPC J (Z)
1613B	19408-74-3	1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	ng/kg	5.31	U	5.01	J-EMPC U (B)	5.07	U (B)	5	J-EMPC U (B)	0.14	J-EMPC J (Z)	0.0337	J-EMPC J (Z)	5.07	U (B)
1613B	3268-87-9	OCDD	ng/kg	10.6	U (B)	12.4		10.1	U (B)	8.5	J (Z)	10.3		10.2	U (B)	6.05	J (Z)
1613B	35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	ng/kg	5.31	U (B)	2.23	J (Z)	5.07	U (B)	5	U (B)	1.52	J (Z)	5.1	J-EMPC U (B)	0.913	J (Z)
1613B	39001-02-0	OCDF	ng/kg	10.6	J-EMPC U (B)	10	J-EMPC U (B)	10.1	J-EMPC U (B)	9.99	U (B)	0.775	J (Z)	10.2	J-EMPC U (B)	10.1	U (B)
1613B	39227-28-6	1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	ng/kg	5.31	J-EMPC U (B)	5.01	U (B)	5.07	J-EMPC U (B)	5	J-EMPC U (B)	5.15	U	5.1	U	5.07	J-EMPC U (B)
1613B	40321-76-4	1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	ng/kg	5.31	U	5.01	J-EMPC U (B)	5.07	J-EMPC U (B)	5	J-EMPC U (B)	5.15	U	5.1	J-EMPC U (B)	5.07	J-EMPC U (B)
1613B	51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	ng/kg	1.06	U	1	J-EMPC U (B)	1.01	J-EMPC U (B)	0.999	J-EMPC U (B)	0.115	J-EMPC J (Z)	1.02	U	0.147	J (Z)
1613B	55673-89-7	1,2,3,4,7,8,9-HPCDF	ng/kg	5.31	U (B)	5.01	J-EMPC U (B)	5.07	J-EMPC U (B)	5	J-EMPC U (B)	5.15	J-EMPC U (B)	5.1	J-EMPC U (B)	5.07	U (B)
1613B	57117-31-4	2,3,4,7,8-PECDF	ng/kg	5.31	J-EMPC U (B)	5.01	U (B)	5.07	J-EMPC U (B)	5	J-EMPC U (B)	0.3	J-EMPC J (Z)	5.1	U	0.369	J (Z)
1613B	57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	ng/kg	5.31	J-EMPC U (B)	5.01	J-EMPC U (B)	5.07	U (B)	5	U (B)	0.231	J-EMPC J (Z)	5.1	J-EMPC U (B)	0.408	J (Z)
1613B	57117-44-9	1,2,3,6,7,8-HXCDF	ng/kg	5.31	U	5.01	U (B)	5.07	U (B)	5	U (B)	5.15	U (B)	5.1	U	5.07	U (B)
1613B	57653-85-7	1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	ng/kg	5.31	J-EMPC U (B)	5.01	U (B)	5.07	J-EMPC U (B)	5	J-EMPC U (B)	0.144	J (Z)	5.1	U	5.07	U (B)
1613B	60851-34-5	2,3,4,6,7,8-HXCDF	ng/kg	5.31	U (B)	5.01	U (B)	5.07	J-EMPC U (B)	5	U (B)	0.153	J (Z)	5.1	U	5.07	J-EMPC U (B)
1613B	67562-39-4	1,2,3,4,6,7,8-HPCDF	ng/kg	5.31	J-EMPC U (B)	5.01	U (B)	5.07	U (B)	5	U (B)	0.411	J (Z)	5.1	J-EMPC U (B)	5.07	U (B)
1613B	70648-26-9	1,2,3,4,7,8-HXCDF	ng/kg	5.31	J-EMPC U (B)	5.01	U (B)	5.07	U (B)	5	U (B)	0.156	J-EMPC J (Z)	5.1	J-EMPC U (B)	5.07	J-EMPC U (B)
1613B	72918-21-9	1,2,3,7,8,9-HXCDF	ng/kg	5.31	J-EMPC U (B)	5.01	J-EMPC U (B)	5.07	J-EMPC U (B)	5	J-EMPC U (B)	5.15	U (B)	5.1	J-EMPC U (B)	5.07	U (B)

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			Sample Name	SL-517-NBZ-SB-2.0-3.0		SL-518-NBZ-SB-0.0-0.5		SL-519-NBZ-SB-0.0-0.5		SL-520-NBZ-SB-0.0-0.5		SL-521-NBZ-SB-0.0-0.5		SL-527-NBZ-SB-0.0-0.5		SL-528-NBZ-SB-0.0-0.5	
			Sample Type	N		N		N		N		N		N		N	
			Sample Date	12/16/2013		12/16/2013		12/16/2013		12/16/2013		12/13/2013		12/05/2013		12/05/2013	
			SDG	PH155		PH155		PH155		PH155		PH151		PH140		PH140	
			Start Depth	2		0		0		0		0		0		0	
			End Depth	3		0.5		0.5		0.5		0.5		0.5		0.5	
Analytic Method	CAS Number	Chemical Name	Unit														
1613B	1746-01-6	2,3,7,8-TCDD	ng/kg	0.0455	J-EMPC J (Z)	1.04	U	1.03	U	0.997	U	1.02	U	1.12	J-EMPC U (B)	1.01	J-EMPC U (B)
1613B	19408-74-3	1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	ng/kg	5.28	J-EMPC U (B)	0.297	J-EMPC J (Z)	0.258	J (Z)	0.578	J (Z)	0.286	J-EMPC J (Z)	5.61	U (B)	5.04	U (B)
1613B	3268-87-9	OCDD	ng/kg	10.6	U (B)	13.6		10	J (Z)	9.9	J (Z)	15.6		157		22.5	
1613B	35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	ng/kg	5.28	J-EMPC U (B)	2.12	J (Z)	1.45	J (Z)	1.27	J (Z)	2.19	J (Z)	20.1		2.55	J (Z)
1613B	39001-02-0	OCDF	ng/kg	10.6	J-EMPC U (B)	0.95	J (Z)	0.824	J (Z)	9.97	J-EMPC U (B)	1.1	J (Z)	5.93	J (Z)	10.1	U (B)
1613B	39227-28-6	1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	ng/kg	5.28	J-EMPC U (B)	5.18	J-EMPC U (B)	5.13	J-EMPC U (B)	4.99	U (B)	5.11	J-EMPC U (B)	5.61	U (B)	5.04	J-EMPC U (B)
1613B	40321-76-4	1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	ng/kg	5.28	U (B)	5.18	J-EMPC U (B)	5.13	U	4.99	J-EMPC U (B)	5.11	U	5.61	J-EMPC U (B)	5.04	J-EMPC U (B)
1613B	51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	ng/kg	0.0363	J-EMPC J (Z)	0.151	J (Z)	0.0786	J-EMPC J (Z)	0.102	J (Z)	0.161	J-EMPC J (Z)	0.347	J (Z)	1.01	J-EMPC U (B)
1613B	55673-89-7	1,2,3,4,7,8,9-HPCDF	ng/kg	5.28	U (B)	5.18	U (B)	5.13	J-EMPC U (B)	4.99	J-EMPC U (B)	5.11	J-EMPC U (B)	5.61	U (B)	5.04	J-EMPC U (B)
1613B	57117-31-4	2,3,4,7,8-PECDF	ng/kg	5.28	U (B)	0.38	J (Z)	5.13	J-EMPC U (B)	4.99	J-EMPC U (B)	5.11	J-EMPC U (B)	5.61	U (B)	5.04	J-EMPC U (B)
1613B	57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	ng/kg	5.28	J-EMPC U (B)	5.18	U (B)	5.13	J-EMPC U (B)	4.99	J-EMPC U (B)	5.11	J-EMPC U (B)	5.61	U (B)	5.04	J-EMPC U (B)
1613B	57117-44-9	1,2,3,6,7,8-HXCDF	ng/kg	5.28	J-EMPC U (B)	5.18	U (B)	5.13	U (B)	4.99	J-EMPC U (B)	5.11	J-EMPC U (B)	5.61	U (B)	5.04	J-EMPC U (B)
1613B	57653-85-7	1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	ng/kg	5.28	U (B)	5.18	U (B)	5.13	U (B)	0.355	J (Z)	5.11	U (B)	1.27	J (Z)	5.04	U (B)
1613B	60851-34-5	2,3,4,6,7,8-HXCDF	ng/kg	5.28	J-EMPC U (B)	5.18	J-EMPC U (B)	5.13	U (B)	4.99	J-EMPC U (B)	5.11	J-EMPC U (B)	5.61	U (B)	5.04	J-EMPC U (B)
1613B	67562-39-4	1,2,3,4,6,7,8-HPCDF	ng/kg	5.28	J-EMPC U (B)	0.605	J (Z)	5.13	U (B)	4.99	J-EMPC U (B)	0.625	J (Z)	3.33	J (Z)	5.04	J-EMPC U (B)
1613B	70648-26-9	1,2,3,4,7,8-HXCDF	ng/kg	5.28	J-EMPC U (B)	5.18	U (B)	5.13	J-EMPC U (B)	4.99	J-EMPC U (B)	5.11	J-EMPC U (B)	5.61	U (B)	5.04	U (B)
1613B	72918-21-9	1,2,3,7,8,9-HXCDF	ng/kg	5.28	J-EMPC U (B)	5.18	U (B)	5.13	J-EMPC U (B)	4.99	U (B)	5.11	U (B)	5.61	U (B)	5.04	U

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			Sample Name	SL-529-NBZ-SB-0.0-0.5		SL-537-NBZ-SB-0.0-0.5		SL-538-NBZ-SB-0.0-0.5		SL-539-NBZ-SB-0.0-0.5		SL-540-NBZ-SB-0.0-0.5		SL-840-NBZ-SB-0.0-0.5		SL-541-NBZ-SB-0.0-0.5	
			Sample Type	N		N		N		N		N		FD		N	
			Sample Date	12/05/2013		12/06/2013		12/06/2013		12/12/2013		12/11/2013		12/11/2013		12/11/2013	
			SDG	PH140		PH141		PH141		PH148		PH148		PH148		PH148	
			Start Depth	0		0		0		0		0		0		0	
			End Depth	0.5		0.5		0.5		0.5		0.5		0.5		0.5	
Analytic Method	CAS Number	Chemical Name	Unit														
1613B	1746-01-6	2,3,7,8-TCDD	ng/kg	1.05	J-EMPC U (B)	0.996	J-EMPC U (B)	0.972	U	1.03	U	1.18	J-EMPC UJ (B, FD)	1.16	UJ (FD)	1.01	U
1613B	19408-74-3	1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	ng/kg	5.27	U (B)	4.98	J-EMPC U (B)	4.86	U (B)	0.297	J (Z)	0.583	J (FD, Z)	1.18	J (FD, Z)	0.878	J-EMPC J (Z)
1613B	3268-87-9	OCDD	ng/kg	51.8		19.3		6.81	J (Z)	33.8		288	J (FD)	856	J (FD)	468	
1613B	35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	ng/kg	8.87		2.71	J (Z)	4.86	U (B)	3.9	J (Z)	36.2	J (FD)	90.2	J (FD)	58.3	
1613B	39001-02-0	OCDF	ng/kg	10.5	U (B)	9.96	U (B)	9.72	U (B)	2.03	J (Z)	21.2		35.2		38.3	
1613B	39227-28-6	1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	ng/kg	5.27	J-EMPC U (B)	4.98	U (B)	4.86	J-EMPC U (B)	0.151	J (Z)	0.35	J (FD, Z)	0.665	J-EMPC J (FD, Z)	0.343	J-EMPC J (Z)
1613B	40321-76-4	1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	ng/kg	5.27	J-EMPC U (B)	4.98	J-EMPC U (B)	4.86	J-EMPC U (B)	0.129	J-EMPC J (Z)	5.9	J-EMPC U (B)	0.215	J-EMPC J (Z)	0.304	J-EMPC J (Z)
1613B	51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	ng/kg	1.05	U (B)	0.996	J-EMPC U (B)	0.972	U	0.246	J-EMPC J (Z)	1.18	U (B)	0.466	J (Z)	0.134	J (Z)
1613B	55673-89-7	1,2,3,4,7,8,9-HPCDF	ng/kg	5.27	J-EMPC U (B)	4.98	J-EMPC U (B)	4.86	J-EMPC U (B)	5.17	J-EMPC U (B)	0.654	J (FD, Z)	1.18	J-EMPC J (FD, Z)	1.22	J (Z)
1613B	57117-31-4	2,3,4,7,8-PECDF	ng/kg	5.27	U (B)	4.98	U (B)	4.86	J-EMPC U (B)	0.43	J (Z)	0.58	J (Z)	0.59	J (Z)	0.325	J-EMPC J (Z)
1613B	57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	ng/kg	5.27	J-EMPC U (B)	4.98	U (B)	4.86	J-EMPC U (B)	5.17	U (B)	0.785	J (Z)	1.21	J (Z)	0.316	J (Z)
1613B	57117-44-9	1,2,3,6,7,8-HXCDF	ng/kg	5.27	U (B)	4.98	U (B)	4.86	U (B)	0.169	J-EMPC J (Z)	0.49	J (Z)	0.563	J (Z)	0.419	J (Z)
1613B	57653-85-7	1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	ng/kg	5.27	U (B)	4.98	U (B)	4.86	J-EMPC U (B)	5.17	J-EMPC U (B)	1.75	J (FD, Z)	3.07	J (FD, Z)	2.78	J (Z)
1613B	60851-34-5	2,3,4,6,7,8-HXCDF	ng/kg	5.27	J-EMPC U (B)	4.98	U (B)	4.86	J-EMPC U (B)	5.17	U (B)	0.575	J (Z)	0.787	J (Z)	0.577	J (Z)
1613B	67562-39-4	1,2,3,4,6,7,8-HPCDF	ng/kg	5.27	U (B)	4.98	U (B)	4.86	U (B)	1.01	J-EMPC J (Z)	8.53	J (FD)	14.5	J (FD)	14.5	
1613B	70648-26-9	1,2,3,4,7,8-HXCDF	ng/kg	5.27	J-EMPC U (B)	4.98	U (B)	4.86	U (B)	5.17	J-EMPC U (B)	0.337	J-EMPC J (Z)	0.501	J (Z)	0.426	J (Z)
1613B	72918-21-9	1,2,3,7,8,9-HXCDF	ng/kg	5.27	U (B)	4.98	J-EMPC U (B)	4.86	J-EMPC U (B)	5.17	U (B)	5.9	J-EMPC U (B)	5.8	J-EMPC U (B)	0.207	J-EMPC J (Z)

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			Sample Name	SL-542-NBZ-SB-0.0-0.5		SL-544-NBZ-SB-0.0-0.5		SL-844-NBZ-SB-0.0-0.5		SL-545-NBZ-SB-0.0-0.5		SL-845-NBZ-SB-0.0-0.5		SL-548-NBZ-SB-0.0-0.5	
			Sample Type	N		N		FD		N		FD		N	
			Sample Date	12/11/2013		12/12/2013		12/12/2013		12/04/2013		12/04/2013		12/04/2013	
			SDG	PH148		PH148		PH148		PH139		PH139		PH139	
			Start Depth	0		0		0		0		0		0	
			End Depth	0.5		0.5		0.5		0.5		0.5		0.5	
Analytic Method	CAS Number	Chemical Name	Unit												
1613B	1746-01-6	2,3,7,8-TCDD	ng/kg	1.07	U	0.993	UJ (FD)	0.11	J-EMPC J (FD, Z)	1.03	U (B)	1.05	J-EMPC U (B)	0.994	J-EMPC U (B)
1613B	19408-74-3	1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	ng/kg	0.799	J (Z)	0.429	J (Z)	0.472	J-EMPC J (Z)	5.17	U (B)	5.27	U (B)	4.97	J-EMPC U (B)
1613B	3268-87-9	OCDD	ng/kg	453		43.6		26.9		142		106		9.94	U (B)
1613B	35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	ng/kg	44.8		4.41	J (Z)	3.2	J (Z)	17.3		13.2		4.97	U (B)
1613B	39001-02-0	OCDF	ng/kg	28.7		2.24	J (Z)	2.03	J (Z)	8.97	J (Z)	8.17	J (Z)	9.94	J-EMPC U (B)
1613B	39227-28-6	1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	ng/kg	0.404	J-EMPC J (Z)	0.133	J-EMPC J (Z)	0.157	J-EMPC J (Z)	5.17	U (B)	5.27	U (B)	4.97	J-EMPC U (B)
1613B	40321-76-4	1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	ng/kg	0.151	J-EMPC J (Z)	0.126	J-EMPC J (FD, Z)	0.328	J-EMPC J (FD, Z)	5.17	J-EMPC UJ (B, FD)	5.27	J-EMPC UJ (B, FD)	4.97	J-EMPC U (B)
1613B	51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	ng/kg	0.127	J-EMPC J (Z)	0.126	J (Z)	0.202	J-EMPC J (Z)	0.622	J-EMPC J (Z)	0.487	J-EMPC J (Z)	0.994	J-EMPC U (B)
1613B	55673-89-7	1,2,3,4,7,8,9-HPCDF	ng/kg	0.93	J (Z)	4.96	UJ (B, FD)	4.96	J-EMPC UJ (B, FD)	5.17	J-EMPC U (B)	5.27	U (B)	4.97	J-EMPC U (B)
1613B	57117-31-4	2,3,4,7,8-PECDF	ng/kg	0.345	J-EMPC J (Z)	4.96	U (B)	0.395	J-EMPC J (Z)	5.17	U (B)	5.27	U (B)	4.97	J-EMPC U (B)
1613B	57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	ng/kg	0.402	J (Z)	4.96	U (B)	0.288	J-EMPC J (Z)	5.17	U (B)	1.13	J (Z)	4.97	U (B)
1613B	57117-44-9	1,2,3,6,7,8-HXCDF	ng/kg	0.382	J (Z)	0.214	J-EMPC J (Z)	0.22	J (Z)	5.17	U (B)	5.27	U (B)	4.97	J-EMPC U (B)
1613B	57653-85-7	1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	ng/kg	2.03	J (Z)	0.474	J (Z)	0.391	J (Z)	1.04	J (Z)	1.1	J (Z)	4.97	J-EMPC U (B)
1613B	60851-34-5	2,3,4,6,7,8-HXCDF	ng/kg	0.626	J (Z)	4.96	U (B)	0.301	J (Z)	5.17	U (B)	5.27	U (B)	4.97	J-EMPC U (B)
1613B	67562-39-4	1,2,3,4,6,7,8-HPCDF	ng/kg	10.8		1.99	J (FD, Z)	0.851	J (FD, Z)	3.75	J (Z)	4.26	J (Z)	4.97	U (B)
1613B	70648-26-9	1,2,3,4,7,8-HXCDF	ng/kg	0.366	J-EMPC J (Z)	4.96	U (B)	4.96	U (B)	5.17	U (B)	5.27	J-EMPC U (B)	4.97	J-EMPC U (B)
1613B	72918-21-9	1,2,3,7,8,9-HXCDF	ng/kg	5.34	J-EMPC U (B)	4.96	J-EMPC UJ (B, FD)	0.258	J-EMPC J (FD, Z)	5.17	UJ (B, FD)	5.27	UJ (B, FD)	4.97	U (B)

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			Sample Name	SL-525-NBZ-SB-0.0-0.5	SL-525-NBZ-SB-4.0-5.0	SL-825-NBZ-SB-4.0-5.0	SL-526-NBZ-SB-0.0-0.5	SL-526-NBZ-SB-2.5-3.5	SL-533-NBZ-SB-0.0-0.5	SL-540-NBZ-SB-0.0-0.5	SL-840-NBZ-SB-0.0-0.5	SL-541-NBZ-SB-0.0-0.5
			Sample Type	N	N	FD	N	N	N	N	FD	N
			Sample Date	12/05/2013	12/05/2013	12/05/2013	12/05/2013	12/05/2013	12/03/2013	12/11/2013	12/11/2013	12/11/2013
			SDG	PH140	PH140	PH140	PH140	PH140	PH138	PH148	PH148	PH148
			Start Depth	0	4	4	0	2.5	0	0	0	0
			End Depth	0.5	5	5	0.5	3.5	0.5	0.5	0.5	0.5
Analytic Method	CAS Number	Chemical Name	Unit									
8151A	120-36-5	Dichlorprop	µg/kg	17 U	17 U	17 U	17 U	17 U	17 U	20 U	20 U	18 U
8151A	1918-00-9	Dicamba	µg/kg	12 U	12 U	12 U	12 U	12 U	12 U	14 U	14 U	12 U
8151A	75-99-0	2,2-Dichlor-Propionic Acid	µg/kg	110 U	200 U	92 U	91 U	92 U	91 U	110 U	110 U	93 U
8151A	88-85-7	Dinitrobutyl Phenol	µg/kg	24 U	24 U	25 U	24 U	24 U	24 U	28 U	28 U	25 U
8151A	93-65-2	MCPP	µg/kg	2500 U	2500 U	2600 U	2500 U	2600 U	2500 U	2900 U	3000 U	1200 J Z
8151A	93-72-1	Silvex (2,4,5-TP)	µg/kg	1.4 J Z	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	0.98 J FD, Z	2.0 UJ FD	1.8 U
8151A	93-76-5	2,4,5-T	µg/kg	1.7	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	2.0 UJ FD	2.2 J FD	2.1
8151A	94-74-6	MCPA	µg/kg	2500 U	2500 U	2600 U	2500 U	2600 U	2500 U	2900 U	3000 U	2600 U
8151A	94-75-7	2,4-D	µg/kg	37 U	37 U	37 U	37 U	37 U	37 U	42 U	43 U	37 U
8151A	94-82-6	2,4-DB	µg/kg	30 U	17 U	17 U	24 J L	22 J L	27 U	20 U	20 U	18 U

U-Compound not detected above reporting limit
J-Result is an estimated value
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			Sample Name	SL-542-NBZ-SB-0.0-0.5	SL-556-NBZ-SB-0.0-0.5	SL-556-NBZ-SB-4.0-5.0
			Sample Type	N	N	N
			Sample Date	12/11/2013	12/06/2013	12/06/2013
			SDG	PH148	PH141	PH141
			Start Depth	0	0	4
			End Depth	0.5	0.5	5
Analytic Method	CAS Number	Chemical Name	Unit			
8151A	120-36-5	Dichlorprop	µg/kg	18 U	17 U	17 U
8151A	1918-00-9	Dicamba	µg/kg	13 U	12 U	12 U
8151A	75-99-0	2,2-Dichlor-Propionic Acid	µg/kg	96 U	92 U	100 U
8151A	88-85-7	Dinitrobutyl Phenol	µg/kg	26 U	25 U	25 U
8151A	93-65-2	MCPP	µg/kg	1300 J Z	2600 U	2600 U
8151A	93-72-1	Silvex (2,4,5-TP)	µg/kg	1.8 U	0.97 J Z	1.7 U
8151A	93-76-5	2,4,5-T	µg/kg	1.8 U	2.0	1.7 U
8151A	94-74-6	MCPA	µg/kg	2700 U	2600 U	2600 U
8151A	94-75-7	2,4-D	µg/kg	38 U	37 U	37 U
8151A	94-82-6	2,4-DB	µg/kg	18 U	26 U	17 U

U-Compound not detected above reporting limit
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			Sample Name	SL-501-NBZ-SB-0.0-0.5	SL-505-NBZ-SB-0.0-0.5	SL-511-NBZ-SB-0.0-0.5	SL-511-NBZ-SB-2.5-3.5	SL-512-NBZ-SB-0.0-0.5	SL-516-NBZ-SB-0.0-0.5	SL-516-NBZ-SB-4.0-5.0	SL-517-NBZ-SB-0.0-0.5	SL-517-NBZ-SB-2.0-3.0
			Sample Type	N	N	N	N	N	N	N	N	N
			Sample Date	12/06/2013	12/13/2013	12/04/2013	12/04/2013	12/06/2013	12/09/2013	12/09/2013	12/16/2013	12/16/2013
			SDG	PH141	PH151	PH139	PH139	PH141	PH142	PH142	PH155	PH155
			Start Depth	0	0	0	2.5	0	0	4	0	2
			End Depth	0.5	0.5	0.5	3.5	0.5	0.5	5	0.5	3
Analytic Method	CAS Number	Chemical Name	Unit									
7471B	7439-97-6	Mercury	mg/kg	0.0129 J Z	0.0362	0.0195	0.0140 J Z	0.0167 U	0.0162 J Z	0.0166 U	0.0196	0.0144 J Z

U-Compound not detected above reporting limit
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			Sample Name	SL-518-NBZ-SB-0.0-0.5	SL-519-NBZ-SB-0.0-0.5	SL-520-NBZ-SB-0.0-0.5	SL-521-NBZ-SB-0.0-0.5	SL-544-NBZ-SB-0.0-0.5	SL-844-NBZ-SB-0.0-0.5	SL-545-NBZ-SB-0.0-0.5	SL-845-NBZ-SB-0.0-0.5
			Sample Type	N	N	N	N	N	FD	N	FD
			Sample Date	12/16/2013	12/16/2013	12/16/2013	12/13/2013	12/12/2013	12/12/2013	12/04/2013	12/04/2013
			SDG	PH155	PH155	PH155	PH151	PH148	PH148	PH139	PH139
			Start Depth	0	0	0	0	0	0	0	0
			End Depth	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Analytic Method	CAS Number	Chemical Name	Unit								
7471B	7439-97-6	Mercury	mg/kg	0.0126 J Z	0.0165 U	0.0168 U	0.0148 J Z	0.0109 J Z	0.0096 J Z	0.182	0.284

U-Compound not detected above reporting limit
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			Sample Name	SL-501-NBZ-SB-0.0-0.5	SL-505-NBZ-SB-0.0-0.5	SL-511-NBZ-SB-0.0-0.5	SL-511-NBZ-SB-2.5-3.5	SL-512-NBZ-SB-0.0-0.5	SL-516-NBZ-SB-0.0-0.5	SL-516-NBZ-SB-4.0-5.0	SL-517-NBZ-SB-0.0-0.5	SL-517-NBZ-SB-2.0-3.0
			Sample Type	N	N	N	N	N	N	N	N	N
			Sample Date	12/06/2013	12/13/2013	12/04/2013	12/04/2013	12/06/2013	12/09/2013	12/09/2013	12/16/2013	12/16/2013
			SDG	PH141	PH151	PH139	PH139	PH141	PH142	PH142	PH155	PH155
			Start Depth	0	0	0	2.5	0	0	4	0	2
			End Depth	0.5	0.5	0.5	3.5	0.5	0.5	5	0.5	3
Analytic Method	CAS Number	Chemical Name	Unit									
6010C	7429-90-5	Aluminum	mg/kg	13400	12900	21300	23500	11700	15700	13400	26000	23100
6010C	7439-89-6	Iron	mg/kg	21500	21800	29000	35200	18200	23500	17900	38300	36700
6010C	7439-92-1	Lead	mg/kg	10.7	17.3	19.7	15.5	7.30	11.8	5.65	19.2	18.1
6010C	7439-93-2	Lithium	mg/kg	29.0	28.2	43.2	45.9	29.1	29.5	27.4	42.1	41.3
6010C	7439-95-4	Magnesium	mg/kg	5500	4520	5580	5680	4720	5340	4480	8270	7910
6010C	7439-96-5	Manganese	mg/kg	330	333	496	370	257	348	237	348	372
6010C	7439-98-7	Molybdenum	mg/kg	1.97 U F, B	2.07 U F	2.09 U F, B	2.05 U F, B	1.98 U	2.07 U	2.06 U	2.06 U F	2.11 U
6010C	7440-02-0	Nickel	mg/kg	11.2	12.4	17.1	15.8	9.40	12.9	7.91	21.4	21.5
6010C	7440-09-7	Potassium	mg/kg	3520	3710	5660	4010	3290	4550	2490	4530	3490
6010C	7440-23-5	Sodium	mg/kg	84.2 J Z	68.6 J Z	99.6 J Z	106	64.2 J Z	71.7 J Z	58.9 J Z	97.6 J Z	131
6010C	7440-31-5	Tin	mg/kg	9.87 U B	10.4 U B	10.4 U B	10.2 U B	9.91 U B	10.4 U B	10.3 U B	10.3 U B	10.6 U B
6010C	7440-32-6	Titanium	mg/kg	1180	818	1340	1330	1110	1170	994	1250	1030
6010C	7440-36-0	Antimony	mg/kg	3.95 U	1.34 J Q, Z	4.18 UJ Q	4.09 UJ Q	3.96 U	4.15 UJ Q	4.13 UJ Q	2.22 J Q, Z	2.25 J Q, Z
6010C	7440-38-2	Arsenic	mg/kg	3.19 J Z	5.14	6.05	28.0	19.7	4.19	2.81 J Z	10.2	9.97
6010C	7440-39-3	Barium	mg/kg	87.6	89.4	129	106	61.3	90.6	56.3	123	112
6010C	7440-41-7	Beryllium	mg/kg	0.496 J Z	0.570 J Z	0.950 J Z	1.18	0.514 J Z	0.658 J Z	0.577 J Z	1.18	1.17
6010C	7440-42-8	Boron	mg/kg	9.87 U	8.32 J Z	10.4 U	10.2 U	9.91 U	2.00 J Z	1.24 J Z	9.81 J Z	7.71 J Z
6010C	7440-43-9	Cadmium	mg/kg	0.425 J Z	1.04 U	0.489 J Z	0.354 J Z	0.372 J Z	0.430 J Z	0.303 J Z	1.03 U	1.06 U
6010C	7440-47-3	Chromium	mg/kg	17.8	17.0	21.5	21.1	14.9	20.6	13.6	32.6	30.0
6010C	7440-48-4	Cobalt	mg/kg	5.64	6.00	8.18	7.85	4.67	6.89	4.53	9.94	11.3
6010C	7440-50-8	Copper	mg/kg	3.26	12.6	7.76	8.84	1.74 J Z	6.04	1.31 J Z	25.2	24.2
6010C	7440-62-2	Vanadium	mg/kg	36.4	33.6	43.3	47.0	29.3	37.8	28.2	64.9	56.3
6010C	7440-66-6	Zinc	mg/kg	60.9	73.8	84.5	82.1	52.9	69.8	44.2	108	103
6010C	7440-67-7	Zirconium	mg/kg	0.897 J Z	2.09 J Z	2.33 J Z	1.34 J Z	1.48 J Z	2.35 J Z	3.65 J Z	4.64 J Z	4.14 J Z
6010C	7440-70-2	Calcium	mg/kg	2460	5940	4400	3030	1980	3780	2200	5140	4070
6010C	7723-14-0	Phosphorus	mg/kg	472	510 J Q	557	359	458	565	280	595 J Q	500 J Q
6020A	7440-22-4	Silver	mg/kg	0.0322 J Z	0.0674 J Z	0.0824 J Z	0.0769 J Z	0.198 U	0.0598 J Z	0.206 U	0.106 J Z	0.0914 J Z
6020A	7440-24-6	Strontium	mg/kg	14.7	23.3	31.0 J Q	23.3 J Q	8.81	18.9 J Q	10.7 J Q	29.9	22.0
6020A	7440-28-0	Thallium	mg/kg	0.238	0.307	0.369	0.378	0.227	0.297	0.218	0.440	0.429
6020A	7782-49-2	Selenium	mg/kg	0.104 J Z	0.427	0.402 J Z	0.402 J Z	0.396 U	0.184 J Z	0.413 U	0.312 J Z	0.305 J Z

U-Compound not detected above reporting limit
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			Sample Name	SL-518-NBZ-SB-0.0-0.5	SL-519-NBZ-SB-0.0-0.5	SL-520-NBZ-SB-0.0-0.5	SL-521-NBZ-SB-0.0-0.5	SL-544-NBZ-SB-0.0-0.5	SL-844-NBZ-SB-0.0-0.5	SL-545-NBZ-SB-0.0-0.5	SL-845-NBZ-SB-0.0-0.5
			Sample Type	N	N	N	N	N	FD	N	FD
			Sample Date	12/16/2013	12/16/2013	12/16/2013	12/13/2013	12/12/2013	12/12/2013	12/04/2013	12/04/2013
			SDG	PH155	PH155	PH155	PH151	PH148	PH148	PH139	PH139
			Start Depth	0	0	0	0	0	0	0	0
			End Depth	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Analytic Method	CAS Number	Chemical Name	Unit								
6010C	7429-90-5	Aluminum	mg/kg	14700	12500	8940	14000	9680	9880	12100	11800
6010C	7439-89-6	Iron	mg/kg	24200	20200	14800	22900	17600	17800	18500	18000
6010C	7439-92-1	Lead	mg/kg	13.3	11.5	9.28	13.7	6.86	8.44	14.8	15.1
6010C	7439-93-2	Lithium	mg/kg	23.8	16.9	10.5	25.2	25.5	26.1	22.7	22.0
6010C	7439-95-4	Magnesium	mg/kg	5520	5350	3970	5690	3920	3960	4240	4070
6010C	7439-96-5	Manganese	mg/kg	293	246	185	332	276	273	283	273
6010C	7439-98-7	Molybdenum	mg/kg	2.01 U F	1.96 U F	1.99 U F	2.01 U F	2.00 U F	1.99 U F	2.12 UJ F, FD, B	2.08 UJ F, FD, B
6010C	7440-02-0	Nickel	mg/kg	13.7	9.63	6.88	14.4	8.13	7.68	10.7	10.3
6010C	7440-09-7	Potassium	mg/kg	4210	3580	2750	4130	2770	2820	3490	3070
6010C	7440-23-5	Sodium	mg/kg	60.7 J Z	71.2 J Z	58.3 J Z	65.8 J Z	53.9 J Z	57.6 J Z	78.3 J Z	92.1 J Z
6010C	7440-31-5	Tin	mg/kg	10.1 U B	9.80 U B	9.95 U B	10.0 U B	9.98 U B	9.93 U B	10.6 U B	10.4 U B
6010C	7440-32-6	Titanium	mg/kg	942	812	647	896	871	959	1010	1010
6010C	7440-36-0	Antimony	mg/kg	1.73 J Q, Z	1.46 J Q, Z	1.15 J Q, Z	1.50 J Q, Z	3.99 UJ FD, Q	1.22 J FD, Q, Z	4.24 UJ Q	4.15 UJ Q
6010C	7440-38-2	Arsenic	mg/kg	6.49	5.76	4.88	5.36	2.84 J Z	3.75 J Z	3.24 J Z	2.90 J Z
6010C	7440-39-3	Barium	mg/kg	77.7	64.6	48.0	74.8	65.1	63.9	71.5	77.1
6010C	7440-41-7	Beryllium	mg/kg	0.675 J Z	0.579 J Z	0.393 J Z	0.660 J Z	0.359 J Z	0.382 J Z	0.477 J Z	0.466 J Z
6010C	7440-42-8	Boron	mg/kg	6.14 J Z	5.54 J Z	5.50 J Z	8.25 J Z	8.30 J FD, Z	4.20 J FD, Z	4.79 J Z	5.57 J Z
6010C	7440-43-9	Cadmium	mg/kg	1.01 U	0.980 U	0.995 U	1.00 U	0.464 J FD, Z	0.993 UJ FD	0.447 J Z	0.466 J Z
6010C	7440-47-3	Chromium	mg/kg	20.2	15.9	10.9	21.1	13.8	13.5	16.7	17.7
6010C	7440-48-4	Cobalt	mg/kg	7.03	6.05	5.23	6.83	4.46	4.20	4.80	4.62
6010C	7440-50-8	Copper	mg/kg	14.8	11.6	8.38	12.5	3.80 J FD	6.43 J FD	4.81	4.80
6010C	7440-62-2	Vanadium	mg/kg	40.1	35.8	27.7	38.2	27.3	28.4	31.2	29.6
6010C	7440-66-6	Zinc	mg/kg	67.7	52.6	39.9	67.1	51.6	53.6	57.2	63.6
6010C	7440-67-7	Zirconium	mg/kg	2.88 J Z	2.03 J Z	1.80 J Z	3.07 J Z	0.877 J FD, Z	4.96 UJ FD	1.66 J Z	2.00 J Z
6010C	7440-70-2	Calcium	mg/kg	3730	3240	3060	6130	2090	2070	5070	5200
6010C	7723-14-0	Phosphorus	mg/kg	497 J Q	447 J Q	332 J Q	508 J Q	385 J Q	321 J Q	431	372
6020A	7440-22-4	Silver	mg/kg	0.0584 J Z	0.0429 J Z	0.199 U	0.0775 J Z	0.0426 J Z	0.0450 J Z	0.201 J Z	0.233
6020A	7440-24-6	Strontium	mg/kg	24.5	24.6	17.9	28.7	9.84	10.2	25.3 J Q	29.2 J Q
6020A	7440-28-0	Thallium	mg/kg	0.322	0.301	0.231	0.285	0.218	0.233	0.213	0.208 U B
6020A	7782-49-2	Selenium	mg/kg	0.227 J Z	0.181 J Z	0.153 J Z	0.150 J Z	0.284 J Z	0.459	0.203 J Z	0.189 J Z

U-Compound not detected above reporting limit
J-Result is an estimated value
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			Sample Name	SL-501-NBZ-SB-0.0-0.5	SL-502-NBZ-SB-0.0-0.5	SL-502-NBZ-SB-4.0-5.0	SL-503-NBZ-SB-0.0-0.5	SL-503-NBZ-SB-2.0-3.0	SL-504-NBZ-SB-0.0-0.5	SL-804-NBZ-SB-0.0-0.5	SL-505-NBZ-SB-0.0-0.5	SL-506-NBZ-SB-0.0-0.5
			Sample Type	N	N	N	N	N	N	FD	N	N
			Sample Date	12/06/2013	12/03/2013	12/03/2013	12/03/2013	12/03/2013	12/03/2013	12/03/2013	12/13/2013	12/04/2013
			SDG	PH141	PH138	PH138	PH138	PH138	PH138	PH138	PH151	PH139
			Start Depth	0	0	4	0	2	0	0	0	0
			End Depth	0.5	0.5	5	0.5	3	0.5	0.5	0.5	0.5
Analytic Method	CAS Number	Chemical Name	Unit									
160.3M	MOIST	Moisture	%	1.6	7.2	9.4	3.8	2.0	2.2	1.9	4.5	4.4

U-Compound not detected above reporting limit
J-Result is an estimated value
R-Result is rejected if R qualifier is in first position. If R qualifier is after another qualifier, result is not rejected but qualified as estimated during validation

			Sample Name	SL-507-NBZ-SB-0.0-0.5	SL-507-NBZ-SB-3.5-4.5	SL-508-NBZ-SB-0.0-0.5	SL-508-NBZ-SB-4.0-5.0	SL-509-NBZ-SB-0.0-0.5	SL-509-NBZ-SB-2.5-3.5	SL-809-NBZ-SB-2.5-3.5	SL-510-NBZ-SB-0.0-0.5	SL-510-NBZ-SB-4.0-5.0
			Sample Type	N	N	N	N	N	N	FD	N	N
			Sample Date	12/04/2013	12/04/2013	12/04/2013	12/04/2013	12/03/2013	12/03/2013	12/03/2013	12/03/2013	12/03/2013
			SDG	PH139	PH139	PH139	PH139	PH138	PH138	PH138	PH138	PH138
			Start Depth	0	3.5	0	4	0	2.5	2.5	0	4
			End Depth	0.5	4.5	0.5	5	0.5	3.5	3.5	0.5	5
Analytic Method	CAS Number	Chemical Name	Unit									
160.3M	MOIST	Moisture	%	4.5	6.4	9.4	10.0	2.4	4.5	5.4	4.6	8.3

U-Compound not detected above reporting limit
J-Result is an estimated value
R-Result is rejected if R qualifier is in first position. If R qualifier is after another qualifier, result is not rejected but qualified as estimated during validation

			Sample Name	SL-511-NBZ-SB-0.0-0.5	SL-511-NBZ-SB-2.5-3.5	SL-512-NBZ-SB-0.0-0.5	SL-513-NBZ-SB-0.0-0.5	SL-514-NBZ-SB-0.0-0.5	SL-515-NBZ-SB-0.0-0.5	SL-516-NBZ-SB-0.0-0.5	SL-516-NBZ-SB-4.0-5.0	SL-517-NBZ-SB-0.0-0.5
			Sample Type	N	N	N	N	N	N	N	N	N
			Sample Date	12/04/2013	12/04/2013	12/06/2013	12/09/2013	12/09/2013	12/09/2013	12/09/2013	12/09/2013	12/16/2013
			SDG	PH139	PH139	PH141	PH142	PH142	PH142	PH142	PH142	PH155
			Start Depth	0	2.5	0	0	0	0	0	4	0
			End Depth	0.5	3.5	0.5	0.5	0.5	0.5	0.5	5	0.5
Analytic Method	CAS Number	Chemical Name	Unit									
160.3M	MOIST	Moisture	%	4.2	5.1	2.0	6.6	8.0	9.2	6.4	3.1	4.1

U-Compound not detected above reporting limit
J-Result is an estimated value
R-Result is rejected if R qualifier is in first position. If R qualifier is after another qualifier, result is not rejected but qualified as estimated during validation

			Sample Name	SL-517-NBZ-SB-2.0-3.0	SL-518-NBZ-SB-0.0-0.5	SL-519-NBZ-SB-0.0-0.5	SL-520-NBZ-SB-0.0-0.5	SL-521-NBZ-SB-0.0-0.5	SL-522-NBZ-SB-0.0-0.5	SL-522-NBZ-SB-2.5-3.5	SL-523-NBZ-SB-0.0-0.5	SL-524-NBZ-SB-0.0-0.5
			Sample Type	N	N	N	N	N	N	N	N	N
			Sample Date	12/16/2013	12/16/2013	12/16/2013	12/16/2013	12/13/2013	12/09/2013	12/09/2013	12/09/2013	12/09/2013
			SDG	PH155	PH155	PH155	PH155	PH151	PH142	PH142	PH142	PH142
			Start Depth	2	0	0	0	0	0	2.5	0	0
			End Depth	3	0.5	0.5	0.5	0.5	0.5	3.5	0.5	0.5
Analytic Method	CAS Number	Chemical Name	Unit									
160.3M	MOIST	Moisture	%	6.3	3.5	2.8	1.5	4.2	4.3	4.8	4.5	4.6

U-Compound not detected above reporting limit
J-Result is an estimated value
R-Result is rejected if R qualifier is in first position. If R qualifier is after another qualifier, result is not rejected but qualified as estimated during validation

			Sample Name	SL-824-NBZ-SB-0.0-0.5	SL-525-NBZ-SB-0.0-0.5	SL-525-NBZ-SB-4.0-5.0	SL-825-NBZ-SB-4.0-5.0	SL-526-NBZ-SB-0.0-0.5	SL-526-NBZ-SB-2.5-3.5	SL-527-NBZ-SB-0.0-0.5	SL-528-NBZ-SB-0.0-0.5	SL-529-NBZ-SB-0.0-0.5
			Sample Type	FD	N	N	FD	N	N	N	N	N
			Sample Date	12/09/2013	12/05/2013	12/05/2013	12/05/2013	12/05/2013	12/05/2013	12/05/2013	12/05/2013	12/05/2013
			SDG	PH142	PH140	PH140	PH140	PH140	PH140	PH140	PH140	PH140
			Start Depth	0	0	4	4	0	2.5	0	0	0
			End Depth	0.5	0.5	5	5	0.5	3.5	0.5	0.5	0.5
Analytic Method	CAS Number	Chemical Name	Unit									
160.3M	MOIST	Moisture	%	5.4	2.0	2.6	2.6	3.2	3.3	11.1	5.2	7.2

U-Compound not detected above reporting limit
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			Sample Name	SL-530-NBZ-SB-0.0-0.5	SL-531-NBZ-SB-0.0-0.5	SL-532-NBZ-SB-0.0-0.5	SL-533-NBZ-SB-0.0-0.5	SL-534-NBZ-SB-0.0-0.5	SL-535-NBZ-SB-0.0-0.5	SL-537-NBZ-SB-0.0-0.5	SL-538-NBZ-SB-0.0-0.5	SL-539-NBZ-SB-0.0-0.5
			Sample Type	N	N	N	N	N	N	N	N	N
			Sample Date	12/03/2013	12/03/2013	12/03/2013	12/03/2013	12/06/2013	12/06/2013	12/06/2013	12/06/2013	12/12/2013
			SDG	PH138	PH138	PH138	PH138	PH141	PH141	PH141	PH141	PH148
			Start Depth	0	0	0	0	0	0	0	0	0
			End Depth	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Analytic Method	CAS Number	Chemical Name	Unit									
160.3M	MOIST	Moisture	%	2.6	2.1	2.7	2.1	2.2	16.0	3.0	1.6	5.5

U-Compound not detected above reporting limit
J-Result is an estimated value
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			Sample Name	SL-540-NBZ-SB-0.0-0.5	SL-840-NBZ-SB-0.0-0.5	SL-541-NBZ-SB-0.0-0.5	SL-542-NBZ-SB-0.0-0.5	SL-543-NBZ-SB-0.0-0.5	SL-544-NBZ-SB-0.0-0.5	SL-844-NBZ-SB-0.0-0.5	SL-545-NBZ-SB-0.0-0.5	SL-845-NBZ-SB-0.0-0.5
			Sample Type	N	FD	N	N	N	N	FD	N	FD
			Sample Date	12/11/2013	12/11/2013	12/11/2013	12/11/2013	12/12/2013	12/12/2013	12/12/2013	12/04/2013	12/04/2013
			SDG	PH148	PH148	PH148	PH148	PH148	PH148	PH148	PH139	PH139
			Start Depth	0	0	0	0	0	0	0	0	0
			End Depth	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Analytic Method	CAS Number	Chemical Name	Unit									
160.3M	MOIST	Moisture	%	15.2	15.3	3.7	6.4	4.0	3.7	2.2	7.5	5.6

U-Compound not detected above reporting limit
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			Sample Name	SL-546-NBZ-SB-0.0-0.5	SL-547-NBZ-SB-0.0-0.5	SL-548-NBZ-SB-0.0-0.5	SL-549-NBZ-SB-0.0-0.5	SL-551-NBZ-SB-0.0-0.5	SL-552-NBZ-SB-0.0-0.5	SL-552-NBZ-SB-2.0-3.0	SL-553-NBZ-SB-0.0-0.5	SL-554-NBZ-SB-0.0-0.5
			Sample Type	N	N	N	N	N	N	N	N	N
			Sample Date	12/04/2013	12/04/2013	12/04/2013	12/04/2013	12/17/2013	12/10/2013	12/10/2013	12/10/2013	12/10/2013
			SDG	PH139	PH139	PH139	PH139	PH157	PH146	PH146	PH143	PH143
			Start Depth	0	0	0	0	0	0	2	0	0
			End Depth	0.5	0.5	0.5	0.5	0.5	0.5	3	0.5	0.5
Analytic Method	CAS Number	Chemical Name	Unit									
160.3M	MOIST	Moisture	%	3.1	5.4	3.3	1.9	3.1	3.0	2.6	6.9	1.2

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J-Result is an estimated value
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			Sample Name	SL-555-NBZ-SB-0.0-0.5	SL-556-NBZ-SB-0.0-0.5	SL-556-NBZ-SB-4.0-5.0	SL-557-NBZ-SB-0.0-0.5
			Sample Type	N	N	N	N
			Sample Date	12/10/2013	12/06/2013	12/06/2013	12/13/2013
			SDG	PH143	PH141	PH141	PH151
			Start Depth	0	0	4	0
			End Depth	0.5	0.5	5	0.5
Analytic Method	CAS Number	Chemical Name	Unit				
160.3M	MOIST	Moisture	%	4.7	3.4	3.6	3.6

U-Compound not detected above reporting limit
J-Result is an estimated value
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			Sample Name	SL-522-NBZ-SB-0.0-0.5	SL-522-NBZ-SB-2.5-3.5	SL-523-NBZ-SB-0.0-0.5	SL-524-NBZ-SB-0.0-0.5	SL-824-NBZ-SB-0.0-0.5
			Sample Type	N	N	N	N	FD
			Sample Date	12/09/2013	12/09/2013	12/09/2013	12/09/2013	12/09/2013
			SDG	PH142	PH142	PH142	PH142	PH142
			Start Depth	0	2.5	0	0	0
			End Depth	0.5	3.5	0.5	0.5	0.5
Analytic Method	CAS Number	Chemical Name	Unit					
300.0	14797-55-8	Nitrate	mg/kg	3.2 J Q	0.61 J Q, Z	8.6 J Q	0.70 J FD, Q, Z	5.8 J FD, Q

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			Sample Name	SL-505-NBZ-SB-0.0-0.5	SL-508-NBZ-SB-0.0-0.5	SL-508-NBZ-SB-4.0-5.0	SL-509-NBZ-SB-0.0-0.5	SL-509-NBZ-SB-2.5-3.5	SL-809-NBZ-SB-2.5-3.5	SL-510-NBZ-SB-0.0-0.5	SL-510-NBZ-SB-4.0-5.0	SL-511-NBZ-SB-0.0-0.5
			Sample Type	N	N	N	N	N	FD	N	N	N
			Sample Date	12/13/2013	12/04/2013	12/04/2013	12/03/2013	12/03/2013	12/03/2013	12/03/2013	12/03/2013	12/04/2013
			SDG	PH151	PH139	PH139	PH138	PH138	PH138	PH138	PH138	PH139
			Start Depth	0	0	4	0	2.5	2.5	0	4	0
			End Depth	0.5	0.5	5	0.5	3.5	3.5	0.5	5	0.5
Analytic Method	CAS Number	Chemical Name	Unit									
8270D SIM	117-81-7	Bis(2-ethylhexyl)phthalate	µg/kg	8.4 J Z	7.6 J Z	20 U	18 U	19 U	19 U	19 U	20 U	19 U
8270D SIM	117-84-0	Di-n-octylphthalate	µg/kg	19 U	20 U	20 U	18 U	19 U	19 U	19 U	20 U	19 U
8270D SIM	120-12-7	Anthracene	µg/kg	0.84 J Z	1.8 U	1.9 U	1.7 U	1.7 U	1.8 U	1.7 U	1.8 U	1.7 U
8270D SIM	129-00-0	Pyrene	µg/kg	3.5	1.8 U	1.9 U	1.7 U	1.7 U	1.8 U	1.7 U	1.8 U	1.4 J L, Z
8270D SIM	131-11-3	Dimethylphthalate	µg/kg	19 U	20 U	20 U	18 U	19 U	19 U	19 U	20 U	19 U
8270D SIM	191-24-2	Benzo(g,h,i)perylene	µg/kg	1.3 J Z	1.8 U	1.9 U	1.7 U	1.7 U	1.8 U	1.7 U	1.8 U	1.7 U
8270D SIM	192-97-2	Benzo(e)pyrene	µg/kg	18 U	19 U	19 U	17 U	18 U	18 U	18 U	19 U	18 U
8270D SIM	193-39-5	Indeno(1,2,3-cd)pyrene	µg/kg	0.93 J Z	1.8 U	1.9 U	1.7 U	1.7 U	1.8 U	1.7 U	1.8 U	0.70 J Z
8270D SIM	205-99-2	Benzo(b)fluoranthene	µg/kg	4.0	1.8 U	1.9 U	1.7 U	1.7 U	1.8 U	1.7 U	1.8 U	2.3
8270D SIM	206-44-0	Fluoranthene	µg/kg	4.0	1.8 U	1.9 U	1.7 U	1.7 U	1.8 U	1.7 U	1.8 U	1.4 J Z
8270D SIM	207-08-9	Benzo(k)fluoranthene	µg/kg	1.1 J Z	1.8 U	1.9 U	1.7 U	1.7 U	1.8 U	1.7 U	1.8 U	0.71 J Z
8270D SIM	208-96-8	Acenaphthylene	µg/kg	1.7 U	1.8 U	1.9 U	1.7 U	1.7 U	1.8 U	1.7 U	1.8 U	1.7 U
8270D SIM	218-01-9	Chrysene	µg/kg	4.1	1.8 U	0.48 J Z	1.7 U	1.7 U	1.8 U	1.7 U	1.8 U	2.7
8270D SIM	50-32-8	Benzo(a)pyrene	µg/kg	1.3 J Z	1.8 U	1.9 U	1.7 U	1.7 U	1.8 U	1.7 U	1.8 U	1.7 U
8270D SIM	53-70-3	Dibenzo(a,h)anthracene	µg/kg	1.7 U	1.8 U	1.9 U	1.7 U	1.7 U	1.8 U	1.7 U	1.8 U	1.7 U
8270D SIM	56-55-3	Benzo(a)anthracene	µg/kg	1.4 J Z	1.8 U	1.9 U	1.7 U	1.7 U	1.8 U	1.7 U	1.8 U	1.7 U
8270D SIM	62-75-9	N-Nitrosodimethylamine	µg/kg	1.7 U	1.8 U	1.9 U	1.7 U	1.7 U	1.8 U	1.7 U	1.8 U	1.7 U
8270D SIM	83-32-9	Acenaphthene	µg/kg	1.7 U	1.8 U	1.9 U	1.7 U	1.7 U	1.8 U	1.7 U	1.8 U	1.7 U
8270D SIM	84-66-2	Diethylphthalate	µg/kg	19 U	20 U	20 U	18 U	19 U	19 U	19 U	20 U	19 U
8270D SIM	84-74-2	Di-n-butylphthalate	µg/kg	19 U	20 U	20 U	18 U	19 U	19 U	19 U	20 U	19 U
8270D SIM	85-01-8	Phenanthrene	µg/kg	6.2	1.2 J Z	1.9 U	1.7 U	1.7 U	1.8 U	1.7 U	1.8 U	1.4 J Z
8270D SIM	85-68-7	Butylbenzylphthalate	µg/kg	19 U	20 U	20 U	18 U	19 U	19 U	19 U	20 U	19 U
8270D SIM	86-73-7	Fluorene	µg/kg	1.7 U	1.8 U	1.9 U	1.7 U	1.7 U	1.8 U	1.7 U	1.8 U	1.7 U
8270D SIM	90-12-0	1-Methylnaphthalene	µg/kg	5.6	1.8 U	1.9 U	1.7 U	1.7 U	1.8 U	1.7 U	1.8 U	1.1 J Z
8270D SIM	91-20-3	Naphthalene	µg/kg	20	1.8 U	1.9 U	1.7 U	1.7 U	1.8 U	1.7 U	1.8 U	2.6
8270D SIM	91-57-6	2-Methylnaphthalene	µg/kg	7.9	1.8 U	1.9 U	1.7 U	1.7 U	1.8 U	1.7 U	1.8 U	1.9

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			Sample Name	SL-511-NBZ-SB-2.5-3.5	SL-512-NBZ-SB-0.0-0.5	SL-516-NBZ-SB-0.0-0.5	SL-516-NBZ-SB-4.0-5.0	SL-517-NBZ-SB-0.0-0.5	SL-517-NBZ-SB-2.0-3.0	SL-518-NBZ-SB-0.0-0.5	SL-519-NBZ-SB-0.0-0.5	SL-520-NBZ-SB-0.0-0.5
			Sample Type	N	N	N	N	N	N	N	N	N
			Sample Date	12/04/2013	12/06/2013	12/09/2013	12/09/2013	12/16/2013	12/16/2013	12/16/2013	12/16/2013	12/16/2013
			SDG	PH139	PH141	PH142	PH142	PH155	PH155	PH155	PH155	PH155
			Start Depth	2.5	0	0	4	0	2	0	0	0
			End Depth	3.5	0.5	0.5	5	0.5	3	0.5	0.5	0.5
Analytic Method	CAS Number	Chemical Name	Unit									
8270D SIM	117-81-7	Bis(2-ethylhexyl)phthalate	µg/kg	19 U	18 U	19 U	19 U	18 U	19 U	18 U	18 U	18 U
8270D SIM	117-84-0	Di-n-octylphthalate	µg/kg	19 U	18 U	19 U	19 U	18 U	19 U	18 U	18 U	18 U
8270D SIM	120-12-7	Anthracene	µg/kg	1.8 U	1.7 U	1.8 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U
8270D SIM	129-00-0	Pyrene	µg/kg	1.8 U	0.74 J Z	2.4	1.7 U	1.1 J Z	1.7 U	1.7 U	0.68 J Z	1.3 J Z
8270D SIM	131-11-3	Dimethylphthalate	µg/kg	19 U	18 U	19 U	19 U	18 U	19 U	18 U	18 U	18 U
8270D SIM	191-24-2	Benzo(g,h,i)perylene	µg/kg	1.8 U	1.7 U	1.0 J Z	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U
8270D SIM	192-97-2	Benzo(e)pyrene	µg/kg	18 U	17 U	18 U	17 U	17 U	18 U	17 U	17 U	17 U
8270D SIM	193-39-5	Indeno(1,2,3-cd)pyrene	µg/kg	1.8 U	1.7 U	0.82 J Z	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U
8270D SIM	205-99-2	Benzo(b)fluoranthene	µg/kg	1.8 U	0.88 J Z	3.3	1.7 U	1.2 J Z	1.7 U	1.3 J Z	0.97 J Z	1.5 J Z
8270D SIM	206-44-0	Fluoranthene	µg/kg	1.8 U	0.77 J Z	2.3	1.7 U	1.0 J Z	1.7 U	1.7 U	0.70 J Z	1.3 J Z
8270D SIM	207-08-9	Benzo(k)fluoranthene	µg/kg	1.8 U	1.7 U	1.0 J Z	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U
8270D SIM	208-96-8	Acenaphthylene	µg/kg	1.8 U	1.7 U	1.8 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U
8270D SIM	218-01-9	Chrysene	µg/kg	1.8 U	0.68 J Z	2.8	1.7 U	1.6 J Z	0.44 J Z	1.0 J Z	1.0 J Z	1.3 J Z
8270D SIM	50-32-8	Benzo(a)pyrene	µg/kg	1.8 U	1.7 U	1.2 J Z	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	0.68 J Z
8270D SIM	53-70-3	Dibenzo(a,h)anthracene	µg/kg	1.8 U	1.7 U	1.8 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U
8270D SIM	56-55-3	Benzo(a)anthracene	µg/kg	1.8 U	1.7 U	1.1 J Z	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U
8270D SIM	62-75-9	N-Nitrosodimethylamine	µg/kg	1.8 U	1.7 U	1.8 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U
8270D SIM	83-32-9	Acenaphthene	µg/kg	1.8 U	1.7 U	1.8 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U
8270D SIM	84-66-2	Diethylphthalate	µg/kg	19 U	18 U	19 U	19 U	18 U	19 U	18 U	18 U	18 U
8270D SIM	84-74-2	Di-n-butylphthalate	µg/kg	19 U	18 U	19 U	19 U	18 U	19 U	18 U	18 U	18 U
8270D SIM	85-01-8	Phenanthrene	µg/kg	1.8 U	1.7 U	1.7 J Z	1.7 U	1.3 J Z	1.7 U	1.7 U	1.7 U	0.95 J Z
8270D SIM	85-68-7	Butylbenzylphthalate	µg/kg	19 U	18 U	19 U	19 U	18 U	19 U	13 J Z	18 U	18 U
8270D SIM	86-73-7	Fluorene	µg/kg	1.8 U	1.7 U	1.8 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U
8270D SIM	90-12-0	1-Methylnaphthalene	µg/kg	1.8 U	1.7 U	1.1 J Z	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U
8270D SIM	91-20-3	Naphthalene	µg/kg	1.8 U	1.7 U	2.4	1.4 J Z	1.8	1.7 U	1.7 U	0.82 J Z	1.3 J Z
8270D SIM	91-57-6	2-Methylnaphthalene	µg/kg	1.8 U	1.7 U	1.1 J Z	1.7 U	0.99 J Z	1.7 U	1.7 U	1.7 U	1.7 U

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			Sample Name	SL-521-NBZ-SB-0.0-0.5	SL-522-NBZ-SB-0.0-0.5	SL-522-NBZ-SB-2.5-3.5	SL-523-NBZ-SB-0.0-0.5	SL-524-NBZ-SB-0.0-0.5	SL-824-NBZ-SB-0.0-0.5	SL-527-NBZ-SB-0.0-0.5	SL-528-NBZ-SB-0.0-0.5	SL-529-NBZ-SB-0.0-0.5
			Sample Type	N	N	N	N	N	FD	N	N	N
			Sample Date	12/13/2013	12/09/2013	12/09/2013	12/09/2013	12/09/2013	12/09/2013	12/05/2013	12/05/2013	12/05/2013
			SDG	PH151	PH142	PH142	PH142	PH142	PH142	PH140	PH140	PH140
			Start Depth	0	0	2.5	0	0	0	0	0	0
			End Depth	0.5	0.5	3.5	0.5	0.5	0.5	0.5	0.5	0.5
Analytic Method	CAS Number	Chemical Name	Unit									
8270D SIM	117-81-7	Bis(2-ethylhexyl)phthalate	µg/kg	11 J Z	19 U	19 U	19	19 UJ FD	31 J FD	64 J Z	21	19 U
8270D SIM	117-84-0	Di-n-octylphthalate	µg/kg	19 U	19 U	19 U	19 U	19 U	19 U	100 U	19 U	19 U
8270D SIM	120-12-7	Anthracene	µg/kg	1.7 U	1.7 U	1.7 U	1.7 U	1.7 UJ FD	0.37 J FD, Z	9.3 U	1.7 U	1.8 U
8270D SIM	129-00-0	Pyrene	µg/kg	2.1	1.4 J Z	1.7 U	2.5	1.4 J FD, Z	4.7 J FD	6.0 J Z	0.92 J Z	1.4 J Z
8270D SIM	131-11-3	Dimethylphthalate	µg/kg	19 U	19 U	19 U	19 U	19 U	19 U	100 U	19 U	19 U
8270D SIM	191-24-2	Benzo(g,h,i)perylene	µg/kg	1.7 U	0.93 J Z	1.7 U	1.1 J Z	1.7 UJ FD	1.6 J FD, Z	9.3 U	1.7 U	1.8 U
8270D SIM	192-97-2	Benzo(e)pyrene	µg/kg	18 U	18 U	18 U	18 U	18 U	18 U	95 U	18 U	18 U
8270D SIM	193-39-5	Indeno(1,2,3-cd)pyrene	µg/kg	1.7 U	0.77 J Z	1.7 U	0.79 J Z	1.7 UJ FD	1.1 J FD, Z	9.3 U	1.7 U	1.8 U
8270D SIM	205-99-2	Benzo(b)fluoranthene	µg/kg	1.8	1.8	1.7 U	3.4	2.0 J FD	5.7 J FD	4.2 J Z	0.82 J Z	1.6 J Z
8270D SIM	206-44-0	Fluoranthene	µg/kg	1.8	1.3 J Z	1.7 U	2.5	1.3 J FD, Z	4.1 J FD	6.9 J Z	1.2 J Z	1.7 J Z
8270D SIM	207-08-9	Benzo(k)fluoranthene	µg/kg	1.7 U	1.7 U	1.7 U	0.87 J Z	1.7 UJ FD	1.7 J FD, Z	9.3 U	1.7 U	1.8 U
8270D SIM	208-96-8	Acenaphthylene	µg/kg	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.8 U	9.3 U	1.7 U	1.8 U
8270D SIM	218-01-9	Chrysene	µg/kg	2.1	2.0	1.7 U	3.0	2.4 J FD	5.4 J FD	5.6 J Z	1.6 J Z	1.9
8270D SIM	50-32-8	Benzo(a)pyrene	µg/kg	0.90 J Z	1.7 U	1.7 U	1.4 J Z	1.7 UJ FD	2.2 J FD	9.3 U	1.7 U	1.8 U
8270D SIM	53-70-3	Dibenzo(a,h)anthracene	µg/kg	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.8 U	9.3 U	1.7 U	1.8 U
8270D SIM	56-55-3	Benzo(a)anthracene	µg/kg	0.75 J Z	1.7 U	1.7 U	1.0 J Z	1.7 UJ FD	1.7 J FD, Z	9.3 U	1.7 U	1.8 U
8270D SIM	62-75-9	N-Nitrosodimethylamine	µg/kg	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.8 U	9.3 U	1.7 U	1.8 U
8270D SIM	83-32-9	Acenaphthene	µg/kg	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.8 U	9.3 U	1.7 U	1.8 U
8270D SIM	84-66-2	Diethylphthalate	µg/kg	19 U	19 U	19 U	19 U	19 U	19 U	100 U	19 U	19 U
8270D SIM	84-74-2	Di-n-butylphthalate	µg/kg	19 U	19 U	19 U	19 U	19 U	19 U	100 U	19 U	19 U
8270D SIM	85-01-8	Phenanthrene	µg/kg	1.5 J Z	1.1 J Z	1.7 U	1.7	2.1	3.3	9.6	0.86 J Z	2.4
8270D SIM	85-68-7	Butylbenzylphthalate	µg/kg	28	19 U	19 U	7.6 J Z	19 UJ FD	12 J FD, Z	100 U	19 U	19 U
8270D SIM	86-73-7	Fluorene	µg/kg	1.7 U	1.7 U	1.7 U	1.7 U	1.7 UJ FD	0.97 J FD, Z	9.3 U	1.7 U	1.8 U
8270D SIM	90-12-0	1-Methylnaphthalene	µg/kg	0.79 J Z	1.7 U	1.7 U	1.1 J Z	1.7 UJ FD	1.2 J FD, Z	9.3 U	1.7 U	1.2 J Z
8270D SIM	91-20-3	Naphthalene	µg/kg	2.7	0.78 J Z	1.7 U	2.1	1.7	2.3	13	0.71 J Z	5.4
8270D SIM	91-57-6	2-Methylnaphthalene	µg/kg	1.2 J Z	1.7 U	1.7 U	1.6 J Z	0.87 J Z	1.4 J Z	4.7 J Z	1.7 U	1.8

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			Sample Name	SL-538-NBZ-SB-0.0-0.5	SL-539-NBZ-SB-0.0-0.5	SL-540-NBZ-SB-0.0-0.5	SL-840-NBZ-SB-0.0-0.5	SL-541-NBZ-SB-0.0-0.5	SL-542-NBZ-SB-0.0-0.5	SL-543-NBZ-SB-0.0-0.5	SL-544-NBZ-SB-0.0-0.5	SL-844-NBZ-SB-0.0-0.5
			Sample Type	N	N	N	FD	N	N	N	N	FD
			Sample Date	12/06/2013	12/12/2013	12/11/2013	12/11/2013	12/11/2013	12/11/2013	12/12/2013	12/12/2013	12/12/2013
			SDG	PH141	PH148	PH148	PH148	PH148	PH148	PH148	PH148	PH148
			Start Depth	0	0	0	0	0	0	0	0	0
			End Depth	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Analytic Method	CAS Number	Chemical Name	Unit									
8270D SIM	117-81-7	Bis(2-ethylhexyl)phthalate	µg/kg	18 U	13 J Z	15 J Z	13 J Z	19 U	8.1 J Z	190 U	18 U	18 U
8270D SIM	117-84-0	Di-n-octylphthalate	µg/kg	18 U	19 U	21 U	21 U	19 U	19 U	190 U	18 U	18 U
8270D SIM	120-12-7	Anthracene	µg/kg	1.7 U	0.38 J Z	0.53 J Z	0.46 J Z	1.7 U	1.8 U	17 U	1.7 U	1.7 U
8270D SIM	129-00-0	Pyrene	µg/kg	0.88 J Z	2.6	3.2	2.8	0.74 J Z	2.3	17 U	2.0 J FD	0.67 J FD, Z
8270D SIM	131-11-3	Dimethylphthalate	µg/kg	18 U	19 U	21 U	21 U	19 U	19 U	190 U	18 U	18 U
8270D SIM	191-24-2	Benzo(g,h,i)perylene	µg/kg	1.7 U	0.85 J Z	1.1 J Z	1.3 J Z	1.7 U	1.2 J Z	17 U	1.7 U	1.7 U
8270D SIM	192-97-2	Benzo(e)pyrene	µg/kg	17 U	18 U	20 U	20 U	18 U	18 U	180 U	17 U	17 U
8270D SIM	193-39-5	Indeno(1,2,3-cd)pyrene	µg/kg	1.7 U	1.7 U	2.0 UJ FD	0.85 J FD, Z	1.7 U	1.8 U	17 U	1.7 U	1.7 U
8270D SIM	205-99-2	Benzo(b)fluoranthene	µg/kg	0.78 J Z	2.6	3.7	3.3	1.7 U	3.8	17 U	2.5 J FD	0.73 J FD, Z
8270D SIM	206-44-0	Fluoranthene	µg/kg	0.72 J Z	2.8	2.9	3.1	0.85 J Z	2.4	17 U	2.1 J FD	1.7 UJ FD
8270D SIM	207-08-9	Benzo(k)fluoranthene	µg/kg	1.7 U	0.86 J Z	1.2 J Z	1.2 J Z	1.7 U	1.4 J Z	17 U	1.0 J FD, Z	1.7 UJ FD
8270D SIM	208-96-8	Acenaphthylene	µg/kg	1.7 U	1.7 U	2.0 U	1.9 U	1.7 U	1.8 U	17 U	1.7 U	1.7 U
8270D SIM	218-01-9	Chrysene	µg/kg	0.71 J Z	2.7	3.5	3.3	0.81 J Z	4.2	8.1 J Z	2.1 J FD	0.81 J FD, Z
8270D SIM	50-32-8	Benzo(a)pyrene	µg/kg	1.7 U	1.4 J Z	1.5 J Z	1.4 J Z	1.7 U	1.7 J Z	17 U	1.2 J FD, Z	1.7 UJ FD
8270D SIM	53-70-3	Dibenzo(a,h)anthracene	µg/kg	1.7 U	1.7 U	2.0 U	1.9 U	1.7 U	1.8 U	17 U	1.7 U	1.7 U
8270D SIM	56-55-3	Benzo(a)anthracene	µg/kg	1.7 U	0.80 J Z	1.2 J Z	1.2 J Z	1.7 U	1.0 J Z	17 U	1.2 J FD, Z	1.7 UJ FD
8270D SIM	62-75-9	N-Nitrosodimethylamine	µg/kg	1.7 U	1.7 U	2.0 U	1.9 U	1.7 U	1.8 U	17 U	1.7 U	1.7 U
8270D SIM	83-32-9	Acenaphthene	µg/kg	1.7 U	1.7 U	2.0 U	1.9 U	1.7 U	1.8 U	17 U	1.7 U	1.7 U
8270D SIM	84-66-2	Diethylphthalate	µg/kg	18 U	19 U	21 U	21 U	19 U	19 U	190 U	18 U	18 U
8270D SIM	84-74-2	Di-n-butylphthalate	µg/kg	18 U	19 U	21 U	21 U	19 U	19 U	190 U	18 U	18 U
8270D SIM	85-01-8	Phenanthrene	µg/kg	1.7 U	1.8	2.9	2.9	0.87 J Z	2.4	17 U	1.5 J FD, Z	0.80 J FD, Z
8270D SIM	85-68-7	Butylbenzylphthalate	µg/kg	18 U	19 U	21 U	21 U	19 U	19 U	190 U	18 U	18 U
8270D SIM	86-73-7	Fluorene	µg/kg	1.7 U	1.7 U	2.0 UJ FD	5.5 J FD	1.7 U	16	17 U	1.7 U	1.7 U
8270D SIM	90-12-0	1-Methylnaphthalene	µg/kg	1.7 U	1.7 U	2.4 J FD	1.9 UJ FD	0.74 J Z	0.85 J Z	17 U	0.72 J FD, Z	1.7 UJ FD
8270D SIM	91-20-3	Naphthalene	µg/kg	1.7 U	2.3	5.3	3.8	1.8	3.5	17 U	1.7	1.1 J Z
8270D SIM	91-57-6	2-Methylnaphthalene	µg/kg	1.7 U	1.7 U	2.9 J FD	1.5 J FD, Z	0.93 J Z	1.8	17 U	0.85 J FD, Z	1.7 UJ FD

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			Sample Name	SL-545-NBZ-SB-0.0-0.5	SL-845-NBZ-SB-0.0-0.5	SL-551-NBZ-SB-0.0-0.5	SL-552-NBZ-SB-0.0-0.5	SL-552-NBZ-SB-2.0-3.0
			Sample Type	N	FD	N	N	N
			Sample Date	12/04/2013	12/04/2013	12/17/2013	12/10/2013	12/10/2013
			SDG	PH139	PH139	PH157	PH146	PH146
			Start Depth	0	0	0	0	2
			End Depth	0.5	0.5	0.5	0.5	3
Analytic Method	CAS Number	Chemical Name	Unit					
8270D SIM	117-81-7	Bis(2-ethylhexyl)phthalate	µg/kg	190 U	190 U	20	74 J Z	16 J Z
8270D SIM	117-84-0	Di-n-octylphthalate	µg/kg	190 U	190 U	18 U	180 U	18 U
8270D SIM	120-12-7	Anthracene	µg/kg	18 U	18 U	1.7 U	17 U	1.7 U
8270D SIM	129-00-0	Pyrene	µg/kg	18 U	18 U	2.0	17 U	0.73 J Z
8270D SIM	131-11-3	Dimethylphthalate	µg/kg	190 U	190 U	18 U	180 U	18 U
8270D SIM	191-24-2	Benzo(g,h,i)perylene	µg/kg	18 U	18 U	0.88 J Z	17 U	1.7 U
8270D SIM	192-97-2	Benzo(e)pyrene	µg/kg	180 U	180 U	17 U	170 U	17 U
8270D SIM	193-39-5	Indeno(1,2,3-cd)pyrene	µg/kg	18 U	18 U	1.7 U	17 U	1.7 U
8270D SIM	205-99-2	Benzo(b)fluoranthene	µg/kg	15 J FD, Z	18 UJ FD	2.4	17 U	0.96 J Z
8270D SIM	206-44-0	Fluoranthene	µg/kg	18 U	18 U	2.2	17 U	0.75 J Z
8270D SIM	207-08-9	Benzo(k)fluoranthene	µg/kg	18 U	18 U	0.88 J Z	17 U	1.7 U
8270D SIM	208-96-8	Acenaphthylene	µg/kg	18 U	18 U	1.7 U	17 U	1.7 U
8270D SIM	218-01-9	Chrysene	µg/kg	20 J FD	6.9 J FD, Z	2.7	8.2 J Z	1.3 J Z
8270D SIM	50-32-8	Benzo(a)pyrene	µg/kg	18 U	18 U	0.96 J Z	17 U	1.7 U
8270D SIM	53-70-3	Dibenzo(a,h)anthracene	µg/kg	18 U	18 U	1.7 U	17 U	1.7 U
8270D SIM	56-55-3	Benzo(a)anthracene	µg/kg	18 U	18 U	1.3 J Z	17 U	0.76 J Z
8270D SIM	62-75-9	N-Nitrosodimethylamine	µg/kg	18 U	18 U	1.7 U	17 U	1.7 U
8270D SIM	83-32-9	Acenaphthene	µg/kg	18 U	18 U	1.7 U	17 U	1.7 U
8270D SIM	84-66-2	Diethylphthalate	µg/kg	190 U	190 U	18 U	180 U	18 U
8270D SIM	84-74-2	Di-n-butylphthalate	µg/kg	190 U	190 U	18 U	180 U	18 U
8270D SIM	85-01-8	Phenanthrene	µg/kg	18 U	18 U	1.5 J Z	8.2 J Z	0.75 J Z
8270D SIM	85-68-7	Butylbenzylphthalate	µg/kg	190 U	190 U	13 J Z	180 U	58
8270D SIM	86-73-7	Fluorene	µg/kg	18 U	18 U	1.7 U	17 U	1.7 U
8270D SIM	90-12-0	1-Methylnaphthalene	µg/kg	18 U	18 U	0.86 J Z	17 U	1.7 U
8270D SIM	91-20-3	Naphthalene	µg/kg	12 J FD, Z	18 UJ FD	2.1	21	2.6
8270D SIM	91-57-6	2-Methylnaphthalene	µg/kg	18 U	18 U	1.1 J Z	6.8 J Z	0.88 J Z

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			Sample Name	SL-508-NBZ-SB-0.0-0.5	SL-508-NBZ-SB-4.0-5.0	SL-509-NBZ-SB-0.0-0.5	SL-509-NBZ-SB-2.5-3.5	SL-809-NBZ-SB-2.5-3.5	SL-510-NBZ-SB-0.0-0.5	SL-510-NBZ-SB-4.0-5.0	SL-527-NBZ-SB-0.0-0.5	SL-528-NBZ-SB-0.0-0.5
			Sample Type	N	N	N	N	FD	N	N	N	N
			Sample Date	12/04/2013	12/04/2013	12/03/2013	12/03/2013	12/03/2013	12/03/2013	12/03/2013	12/05/2013	12/05/2013
			SDG	PH139	PH139	PH138	PH138	PH138	PH138	PH138	PH140	PH140
			Start Depth	0	4	0	2.5	2.5	0	4	0	0
			End Depth	0.5	5	0.5	3.5	3.5	0.5	5	0.5	0.5
Analytic Method	CAS Number	Chemical Name	Unit									
8082A	11096-82-5	Aroclor 1260	µg/kg	19 U	19 U	17 U	18 U	18 U	18 U	19 U	19 U	18 U
8082A	11097-69-1	Aroclor 1254	µg/kg	19 U	19 U	17 U	18 U	18 U	18 U	19 U	19 U	18 U
8082A	11100-14-4	Aroclor 1268	µg/kg	19 U	19 U	17 U	18 U	18 U	18 U	19 U	19 U	18 U
8082A	11104-28-2	Aroclor 1221	µg/kg	19 U	19 U	17 U	18 U	18 U	18 U	19 U	19 U	18 U
8082A	11126-42-4	Aroclor 5460	µg/kg	36 U	37 U	34 U	35 U	35 U	35 U	36 U	37 U	35 U
8082A	11141-16-5	Aroclor 1232	µg/kg	19 U	19 U	17 U	18 U	18 U	18 U	19 U	19 U	18 U
8082A	12642-23-8	Aroclor 5442	µg/kg	36 U	37 U	34 U	35 U	35 U	35 U	36 U	37 U	35 U
8082A	12672-29-6	Aroclor 1248	µg/kg	19 U	19 U	17 U	18 U	18 U	18 U	19 U	19 U	18 U
8082A	12674-11-2	Aroclor 1016	µg/kg	19 U	19 U	17 U	18 U	18 U	18 U	19 U	19 U	18 U
8082A	37324-23-5	Aroclor 1262	µg/kg	19 U	19 U	17 U	18 U	18 U	18 U	19 U	19 U	18 U
8082A	53469-21-9	Aroclor 1242	µg/kg	19 U	19 U	17 U	18 U	18 U	18 U	19 U	19 U	18 U
8082A	63496-31-1	Aroclor 5432	µg/kg	36 U	37 U	34 U	35 U	35 U	35 U	36 U	37 U	35 U

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			Sample Name	SL-529-NBZ-SB-0.0-0.5	SL-545-NBZ-SB-0.0-0.5	SL-845-NBZ-SB-0.0-0.5	SL-548-NBZ-SB-0.0-0.5	SL-553-NBZ-SB-0.0-0.5	SL-554-NBZ-SB-0.0-0.5	SL-555-NBZ-SB-0.0-0.5	SL-557-NBZ-SB-0.0-0.5
			Sample Type	N	N	FD	N	N	N	N	N
			Sample Date	12/05/2013	12/04/2013	12/04/2013	12/04/2013	12/10/2013	12/10/2013	12/10/2013	12/13/2013
			SDG	PH140	PH139	PH139	PH139	PH143	PH143	PH143	PH151
			Start Depth	0	0	0	0	0	0	0	0
			End Depth	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Analytic Method	CAS Number	Chemical Name	Unit								
8082A	11096-82-5	Aroclor 1260	µg/kg	18 U	18 U	18 U	18 U	18 U	17 U	18 U	18 U
8082A	11097-69-1	Aroclor 1254	µg/kg	18 U	18 U	18 U	18 U	18 U	17 U	18 U	18 U
8082A	11100-14-4	Aroclor 1268	µg/kg	18 U	18 U	18 U	18 U	18 U	17 U	18 U	18 U
8082A	11104-28-2	Aroclor 1221	µg/kg	18 U	18 U	18 U	18 U	18 U	17 U	18 U	18 U
8082A	11126-42-4	Aroclor 5460	µg/kg	35 U	36 U	35 U	34 U	35 U	33 U	35 U	34 U
8082A	11141-16-5	Aroclor 1232	µg/kg	18 U	18 U	18 U	18 U	18 U	17 U	18 U	18 U
8082A	12642-23-8	Aroclor 5442	µg/kg	35 U	36 U	35 U	34 U	35 U	33 U	35 U	34 U
8082A	12672-29-6	Aroclor 1248	µg/kg	18 U	18 U	18 U	18 U	18 U	17 U	18 U	18 U
8082A	12674-11-2	Aroclor 1016	µg/kg	18 U	18 U	18 U	18 U	18 U	17 U	18 U	18 U
8082A	37324-23-5	Aroclor 1262	µg/kg	18 U	18 U	18 U	18 U	18 U	17 U	18 U	18 U
8082A	53469-21-9	Aroclor 1242	µg/kg	18 U	18 U	18 U	18 U	18 U	17 U	18 U	18 U
8082A	63496-31-1	Aroclor 5432	µg/kg	35 U	36 U	35 U	34 U	35 U	33 U	35 U	34 U

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			Sample Name	SL-502-NBZ-SB-0.0-0.5	SL-502-NBZ-SB-4.0-5.0	SL-503-NBZ-SB-0.0-0.5	SL-503-NBZ-SB-2.0-3.0	SL-504-NBZ-SB-0.0-0.5	SL-804-NBZ-SB-0.0-0.5	SL-506-NBZ-SB-0.0-0.5	SL-507-NBZ-SB-0.0-0.5	SL-507-NBZ-SB-3.5-4.5
			Sample Type	N	N	N	N	N	FD	N	N	N
			Sample Date	12/03/2013	12/03/2013	12/03/2013	12/03/2013	12/03/2013	12/03/2013	12/04/2013	12/04/2013	12/04/2013
			SDG	PH138	PH138	PH138	PH138	PH138	PH138	PH139	PH139	PH139
			Start Depth	0	4	0	2	0	0	0	0	3.5
			End Depth	0.5	5	0.5	3	0.5	0.5	0.5	0.5	4.5
Analytic Method	CAS Number	Chemical Name	Unit									
8081B	1024-57-3	Heptachlor Epoxide	µg/kg	0.89 U	0.92 U	0.85 U	0.85 U	0.84 U	0.83 U	0.87 U	0.86 U	0.88 U
8081B	1031-07-8	Endosulfan Sulfate	µg/kg	1.8 U	1.9 U	1.7 U	1.7 U	1.7 U	1.7 U	1.8 U	1.8 U	1.8 U
8081B	2385-85-5	Mirex	µg/kg	1.8 U	1.9 U	1.7 U	1.7 U	1.7 U	1.7 U	1.8 U	1.8 U	1.8 U
8081B	309-00-2	Aldrin	µg/kg	0.89 U	0.92 U	0.85 U	0.85 U	0.84 U	0.83 U	0.87 U	0.86 U	0.88 U
8081B	319-84-6	Alpha-Bhc	µg/kg	0.89 U	0.92 U	0.85 U	0.85 U	0.84 U	0.83 U	0.87 U	0.86 U	0.88 U
8081B	319-85-7	Beta-Bhc	µg/kg	2.0 U	2.1 U	2.0 U	1.9 U	1.9 U	1.9 U	2.0 U	2.0 U	2.0 U
8081B	319-86-8	Delta-Bhc	µg/kg	0.89 U	0.92 U	0.85 U	0.85 U	0.84 U	0.83 U	0.87 U	0.86 U	0.88 U
8081B	33213-65-9	Endosulfan II	µg/kg	1.8 U	1.9 U	1.7 U	1.7 U	1.7 U	1.7 U	1.8 U	1.8 U	1.8 U
8081B	50-29-3	4,4'-DDT	µg/kg	1.8 U	1.9 U	0.37 J Z	1.7 U	1.7 U	1.7 U	1.8 U	0.43 J Z	1.8 U
8081B	53494-70-5	Endrin Ketone	µg/kg	1.9 U	2.0 U	1.9 U	1.8 U	1.8 U	1.8 U	1.9 U	1.9 U	1.9 U
8081B	57-74-9	Chlordane	µg/kg	18 U	19 U	17 U	17 U	17 U	17 U	18 U	18 U	18 U
8081B	58-89-9	Gamma-Bhc (Lindane)	µg/kg	0.89 U	0.92 U	0.85 U	0.85 U	0.84 U	0.83 U	0.87 U	0.86 U	0.88 U
8081B	60-57-1	Dieldrin	µg/kg	1.8 U	1.9 U	1.7 U	1.7 U	1.7 U	1.7 U	1.8 U	1.8 U	1.8 U
8081B	72-20-8	Endrin	µg/kg	1.8 U	1.9 U	1.7 U	1.7 U	1.7 U	1.7 U	1.8 U	1.8 U	1.8 U
8081B	72-43-5	Methoxychlor	µg/kg	7.2 U	7.4 U	6.9 U	6.8 U	6.8 U	6.7 U	7.0 U	6.9 U	7.1 U
8081B	72-54-8	4,4'-DDD	µg/kg	1.8 U	1.9 U	1.7 U	1.7 U	1.7 U	1.7 U	1.8 U	1.8 U	1.8 U
8081B	72-55-9	4,4'-DDE	µg/kg	1.8 U	1.9 U	1.7 U	1.7 U	1.7 U	1.7 U	1.8 U	0.63 J Z	1.8 U
8081B	7421-93-4	Endrin Aldehyde	µg/kg	1.8 U	1.9 U	1.7 U	1.7 U	1.7 U	1.7 U	1.8 U	1.8 U	1.8 U
8081B	76-44-8	Heptachlor	µg/kg	0.89 U	0.92 U	0.85 U	0.85 U	0.84 U	0.83 U	0.87 U	0.86 U	0.88 U
8081B	8001-35-2	Technical Toxaphene	µg/kg	36 U	36 U	34 U	34 U	33 U	33 U	34 U	34 U	35 U
8081B	959-98-8	Endosulfan I	µg/kg	0.89 U	0.92 U	0.85 U	0.85 U	0.84 U	0.83 U	0.87 U	0.86 U	0.88 U

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			Sample Name	SL-508-NBZ-SB-0.0-0.5	SL-508-NBZ-SB-4.0-5.0	SL-509-NBZ-SB-0.0-0.5	SL-509-NBZ-SB-2.5-3.5	SL-809-NBZ-SB-2.5-3.5	SL-510-NBZ-SB-0.0-0.5	SL-510-NBZ-SB-4.0-5.0	SL-514-NBZ-SB-0.0-0.5	SL-515-NBZ-SB-0.0-0.5
			Sample Type	N	N	N	N	FD	N	N	N	N
			Sample Date	12/04/2013	12/04/2013	12/03/2013	12/03/2013	12/03/2013	12/03/2013	12/03/2013	12/09/2013	12/09/2013
			SDG	PH139	PH139	PH138	PH138	PH138	PH138	PH138	PH142	PH142
			Start Depth	0	4	0	2.5	2.5	0	4	0	0
			End Depth	0.5	5	0.5	3.5	3.5	0.5	5	0.5	0.5
Analytic Method	CAS Number	Chemical Name	Unit									
8081B	1024-57-3	Heptachlor Epoxide	µg/kg	0.91 U	0.92 U	0.85 U	0.87 U	0.88 U	0.87 U	0.91 U	0.90 U	0.91 U
8081B	1031-07-8	Endosulfan Sulfate	µg/kg	1.9 U	1.9 U	1.7 U	1.8 U	1.8 U	1.8 U	1.9 U	1.8 U	1.9 U
8081B	2385-85-5	Mirex	µg/kg	1.9 U	1.9 U	1.7 U	1.8 U	1.8 U	1.8 U	1.9 U	1.8 U	1.9 U
8081B	309-00-2	Aldrin	µg/kg	0.91 U	0.92 U	0.85 U	0.87 U	0.88 U	0.87 U	0.91 U	0.90 U	0.91 U
8081B	319-84-6	Alpha-Bhc	µg/kg	0.91 U	0.92 U	0.85 U	0.87 U	0.88 U	0.87 U	0.91 U	0.90 U	0.91 U
8081B	319-85-7	Beta-Bhc	µg/kg	2.1 U	2.1 U	1.9 U	2.0 U	2.0 U	2.0 U	2.1 U	2.1 U	2.1 U
8081B	319-86-8	Delta-Bhc	µg/kg	0.91 U	0.92 U	0.85 U	0.87 U	0.88 U	0.87 U	0.91 U	0.90 U	0.91 U
8081B	33213-65-9	Endosulfan II	µg/kg	1.9 U	1.9 U	1.7 U	1.8 U	1.8 U	1.8 U	1.9 U	1.8 U	1.9 UJ C
8081B	50-29-3	4,4'-DDT	µg/kg	1.9 U	1.9 U	1.7 U	1.8 U	1.8 U	1.8 U	1.9 U	0.61 J Z, *#	1.2 J Z
8081B	53494-70-5	Endrin Ketone	µg/kg	2.0 U	2.0 U	1.8 U	1.9 U	1.9 U	1.9 U	2.0 U	2.0 U	2.0 U
8081B	57-74-9	Chlordane	µg/kg	19 U	19 U	17 U	18 U	18 U	18 U	19 U	18 U	19 U
8081B	58-89-9	Gamma-Bhc (Lindane)	µg/kg	0.91 U	0.92 U	0.85 U	0.87 U	0.88 U	0.87 U	0.91 U	0.90 U	0.91 U
8081B	60-57-1	Dieldrin	µg/kg	1.9 U	1.9 U	1.7 U	1.8 U	1.8 U	1.8 U	1.9 U	1.8 U	1.9 U
8081B	72-20-8	Endrin	µg/kg	1.9 U	1.9 U	1.7 U	1.8 U	1.8 U	1.8 U	1.9 U	1.8 U	1.9 U
8081B	72-43-5	Methoxychlor	µg/kg	7.4 U	7.4 U	6.9 U	7.0 U	7.1 U	7.0 U	7.3 U	7.3 U	7.4 U
8081B	72-54-8	4,4'-DDD	µg/kg	1.9 U	1.9 U	1.7 U	1.8 U	1.8 U	1.8 U	1.9 U	1.8 U	1.9 U
8081B	72-55-9	4,4'-DDE	µg/kg	1.9 U	1.9 U	1.7 U	1.8 U	1.8 U	1.8 U	1.9 U	0.85 J Z	1.0 J Z, *#
8081B	7421-93-4	Endrin Aldehyde	µg/kg	1.9 U	1.9 U	1.7 U	1.8 U	1.8 U	1.8 U	1.9 U	0.50 J Z	1.9 U
8081B	76-44-8	Heptachlor	µg/kg	0.91 U	0.92 U	0.85 U	0.87 U	0.88 U	0.87 U	0.91 U	0.90 U	0.91 U
8081B	8001-35-2	Technical Toxaphene	µg/kg	36 U	36 U	34 U	35 U	35 U	35 U	36 U	36 U	36 U
8081B	959-98-8	Endosulfan I	µg/kg	0.91 U	0.92 U	0.85 U	0.87 U	0.88 U	0.87 U	0.91 U	0.42 J Z	0.91 U

U-Compound not detected above reporting limit
J-Result is an estimated value
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			Sample Name	SL-526-NBZ-SB-0.0-0.5	SL-526-NBZ-SB-2.5-3.5	SL-527-NBZ-SB-0.0-0.5	SL-528-NBZ-SB-0.0-0.5	SL-529-NBZ-SB-0.0-0.5	SL-530-NBZ-SB-0.0-0.5	SL-531-NBZ-SB-0.0-0.5	SL-532-NBZ-SB-0.0-0.5	SL-537-NBZ-SB-0.0-0.5
			Sample Type	N	N	N	N	N	N	N	N	N
			Sample Date	12/05/2013	12/05/2013	12/05/2013	12/05/2013	12/05/2013	12/03/2013	12/03/2013	12/03/2013	12/06/2013
			SDG	PH140	PH140	PH140	PH140	PH140	PH138	PH138	PH138	PH141
			Start Depth	0	2.5	0	0	0	0	0	0	0
			End Depth	0.5	3.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Analytic Method	CAS Number	Chemical Name	Unit									
8081B	1024-57-3	Heptachlor Epoxide	µg/kg	0.86 U	0.86 U	0.93 U	0.88 U	0.89 U	0.84 U	0.84 U	0.85 U	0.86 U
8081B	1031-07-8	Endosulfan Sulfate	µg/kg	1.8 U	1.8 U	1.9 U	1.8 U	1.8 U	1.7 U	1.7 U	1.7 U	1.8 U
8081B	2385-85-5	Mirex	µg/kg	1.8 U	1.8 U	1.9 U	1.8 U	1.8 U	1.7 U	1.7 U	1.7 U	1.8 U
8081B	309-00-2	Aldrin	µg/kg	0.86 U	0.86 U	0.93 U	0.88 U	0.89 U	0.84 U	0.84 U	0.85 U	0.86 U
8081B	319-84-6	Alpha-Bhc	µg/kg	0.86 U	0.86 U	0.93 U	0.88 U	0.89 U	0.84 U	0.84 U	0.85 U	0.86 U
8081B	319-85-7	Beta-Bhc	µg/kg	2.0 U	2.0 U	2.1 U	2.0 U	2.0 U	1.9 U	1.9 U	2.0 U	2.0 U
8081B	319-86-8	Delta-Bhc	µg/kg	0.86 U	0.86 U	0.93 U	0.88 U	0.89 U	0.84 U	0.84 U	0.85 U	0.86 U
8081B	33213-65-9	Endosulfan II	µg/kg	1.8 U	1.8 U	1.9 U	1.8 U	1.8 U	1.7 U	1.7 U	1.7 U	1.8 U
8081B	50-29-3	4,4'-DDT	µg/kg	0.78 J Z	1.8 U	1.0 J Z	1.3 J Z	0.91 J Z	1.7 U	1.7 U	1.0 J Z	0.86 J Z
8081B	53494-70-5	Endrin Ketone	µg/kg	1.9 U	1.9 U	2.0 U	1.9 U	1.9 U	1.8 U	1.8 U	1.8 U	1.9 U
8081B	57-74-9	Chlordane	µg/kg	18 U	18 U	19 U	18 U	18 U	17 U	17 U	17 U	18 U
8081B	58-89-9	Gamma-Bhc (Lindane)	µg/kg	0.86 U	0.86 U	0.93 U	0.32 J Z	0.89 U	0.84 U	0.84 U	0.85 U	0.86 U
8081B	60-57-1	Dieldrin	µg/kg	1.8 U	1.8 U	1.9 U	0.52 J Z	1.8 U	1.7 U	1.7 U	1.7 U	1.9 U
8081B	72-20-8	Endrin	µg/kg	1.8 U	1.8 U	1.9 U	0.41 J Z	1.8 U	1.7 U	1.7 U	1.7 U	1.8 U
8081B	72-43-5	Methoxychlor	µg/kg	6.9 U	6.9 U	7.5 U	7.1 U	7.2 U	6.8 U	6.8 U	6.9 U	6.9 U
8081B	72-54-8	4,4'-DDD	µg/kg	1.8 U	1.8 U	2.0 U	1.8 U	1.8 U	1.7 U	1.7 U	1.7 U	1.8 U
8081B	72-55-9	4,4'-DDE	µg/kg	0.65 J Z	1.8 U	1.1 J Z	2.1	1.6 J Z	1.7 U	1.7 U	1.7 U	0.89 J Z
8081B	7421-93-4	Endrin Aldehyde	µg/kg	1.8 U	1.8 U	0.98 J Z	0.71 J Z	0.36 J Z	1.7 U	1.7 U	1.7 U	1.8 U
8081B	76-44-8	Heptachlor	µg/kg	0.86 U	0.86 U	0.93 U	0.88 U	0.89 U	0.84 U	0.84 U	0.85 U	0.86 U
8081B	8001-35-2	Technical Toxaphene	µg/kg	34 U	34 U	39 U	38 U	36 U	33 U	33 U	34 U	34 U
8081B	959-98-8	Endosulfan I	µg/kg	0.86 U	0.86 U	0.92 J Z	0.88 U	0.89 U	0.84 U	0.84 U	0.85 U	0.86 U

U-Compound not detected above reporting limit
J-Result is an estimated value
R-Result is rejected if R qualifier is in first position. If R qualifier is after another qualifier, result is not rejected but qualified as estimated during validation

			Sample Name	SL-538-NBZ-SB-0.0-0.5	SL-539-NBZ-SB-0.0-0.5	SL-540-NBZ-SB-0.0-0.5	SL-840-NBZ-SB-0.0-0.5	SL-541-NBZ-SB-0.0-0.5	SL-542-NBZ-SB-0.0-0.5	SL-544-NBZ-SB-0.0-0.5	SL-844-NBZ-SB-0.0-0.5	SL-556-NBZ-SB-0.0-0.5
			Sample Type	N	N	N	FD	N	N	N	FD	N
			Sample Date	12/06/2013	12/12/2013	12/11/2013	12/11/2013	12/11/2013	12/11/2013	12/12/2013	12/12/2013	12/06/2013
			SDG	PH141	PH148	PH148	PH148	PH148	PH148	PH148	PH148	PH141
			Start Depth	0	0	0	0	0	0	0	0	0
			End Depth	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Analytic Method	CAS Number	Chemical Name	Unit									
8081B	1024-57-3	Heptachlor Epoxide	µg/kg	0.84 U	0.87 U	0.97 U	0.97 U	0.86 U	0.93 U	0.86 U	0.85 U	0.86 U
8081B	1031-07-8	Endosulfan Sulfate	µg/kg	1.7 U	1.8 U	2.0 U	2.0 U	1.8 U	1.8 U	1.8 U	1.7 U	1.8 U
8081B	2385-85-5	Mirex	µg/kg	1.7 U	1.8 U	2.0 U	2.0 U	0.62 J Z	1.8 U	1.8 U	1.7 U	1.8 U
8081B	309-00-2	Aldrin	µg/kg	0.84 U	0.87 U	0.97 U	0.97 U	0.86 U	0.88 U	0.86 U	0.85 U	0.86 U
8081B	319-84-6	Alpha-Bhc	µg/kg	0.84 U	0.87 U	0.97 U	0.97 U	0.86 U	0.88 U	0.86 U	0.85 U	0.86 U
8081B	319-85-7	Beta-Bhc	µg/kg	1.9 U	2.0 U	2.2 U	2.2 U	2.0 U	2.0 U	2.0 U	1.9 U	2.0 U
8081B	319-86-8	Delta-Bhc	µg/kg	0.84 U	0.87 U	0.97 U	0.97 U	0.86 U	0.74 J Z	0.86 U	0.85 U	0.86 U
8081B	33213-65-9	Endosulfan II	µg/kg	1.7 U	1.8 U	2.0 U	2.0 U	1.8 U	1.8 U	1.8 U	1.7 U	1.8 U
8081B	50-29-3	4,4'-DDT	µg/kg	1.7 U	1.6 J Z	2.0	1.3 J Z	1.8 U	2.3	0.90 J FD, Z	0.49 J FD, Z	2.6
8081B	53494-70-5	Endrin Ketone	µg/kg	1.8 U	1.9 U	2.1 U	2.1 U	1.9 U	1.9 U	1.9 U	1.8 U	1.9 U
8081B	57-74-9	Chlordane	µg/kg	17 U	18 U	20 U	20 U	18 U	18 U	18 U	17 U	18 U
8081B	58-89-9	Gamma-Bhc (Lindane)	µg/kg	0.84 U	0.87 U	0.97 U	0.97 U	0.86 U	0.88 U	0.86 U	0.85 U	0.86 U
8081B	60-57-1	Dieldrin	µg/kg	1.7 U	0.43 J Z	0.56 J FD, Z	2.0 UJ FD	1.8 U	1.8 U	1.8 U	1.7 U	1.8 U
8081B	72-20-8	Endrin	µg/kg	1.7 U	0.39 J Z	0.46 J FD, Z	2.0 UJ FD	1.8 U	1.8 U	1.8 U	1.7 U	1.8 U
8081B	72-43-5	Methoxychlor	µg/kg	6.8 U	7.0 U	7.8 U	7.9 U	6.9 U	7.1 U	7.0 U	6.9 U	6.9 U
8081B	72-54-8	4,4'-DDD	µg/kg	1.7 U	1.8 U	2.0 U	2.0 U	1.8 U	1.8 U	1.8 U	1.7 U	1.8 U
8081B	72-55-9	4,4'-DDE	µg/kg	1.7 U	1.5 J Z	2.0 U	2.0 U	1.8 U	1.2 J Z	0.64 J Z	0.40 J Z	2.7
8081B	7421-93-4	Endrin Aldehyde	µg/kg	1.7 U	0.55 J Z	2.0 U	2.0 U	1.8 U	1.8 U	1.8 U	1.7 U	0.40 J Z
8081B	76-44-8	Heptachlor	µg/kg	0.84 U	0.87 U	0.54 J FD, Z	0.29 J FD, Z	0.86 U	0.88 U	0.86 U	0.85 U	0.86 U
8081B	8001-35-2	Technical Toxaphene	µg/kg	34 U	35 U	39 U	39 U	34 U	35 U	34 U	34 U	34 U
8081B	959-98-8	Endosulfan I	µg/kg	0.84 U	0.87 U	0.97 U	0.97 U	0.86 U	0.88 U	0.86 U	0.85 U	0.86 U

U-Compound not detected above reporting limit
J-Result is an estimated value
R-Result is rejected if R qualifier is in first position. If R qualifier is after another qualifier, result is not rejected but qualified as estimated during validation

			Sample Name	SL-556-NBZ-SB-4.0-5.0
			Sample Type	N
			Sample Date	12/06/2013
			SDG	PH141
			Start Depth	4
			End Depth	5
Analytic Method	CAS Number	Chemical Name	Unit	
8081B	1024-57-3	Heptachlor Epoxide	µg/kg	0.86 U
8081B	1031-07-8	Endosulfan Sulfate	µg/kg	1.8 U
8081B	2385-85-5	Mirex	µg/kg	1.8 U
8081B	309-00-2	Aldrin	µg/kg	0.86 U
8081B	319-84-6	Alpha-Bhc	µg/kg	0.86 U
8081B	319-85-7	Beta-Bhc	µg/kg	2.0 U
8081B	319-86-8	Delta-Bhc	µg/kg	0.86 U
8081B	33213-65-9	Endosulfan II	µg/kg	1.8 U
8081B	50-29-3	4,4'-DDT	µg/kg	1.8 U
8081B	53494-70-5	Endrin Ketone	µg/kg	1.9 U
8081B	57-74-9	Chlordane	µg/kg	18 U
8081B	58-89-9	Gamma-Bhc (Lindane)	µg/kg	0.86 U
8081B	60-57-1	Dieldrin	µg/kg	1.8 U
8081B	72-20-8	Endrin	µg/kg	1.8 U
8081B	72-43-5	Methoxychlor	µg/kg	7.0 U
8081B	72-54-8	4,4'-DDD	µg/kg	1.8 U
8081B	72-55-9	4,4'-DDE	µg/kg	1.8 U
8081B	7421-93-4	Endrin Aldehyde	µg/kg	1.8 U
8081B	76-44-8	Heptachlor	µg/kg	0.86 U
8081B	8001-35-2	Technical Toxaphene	µg/kg	34 U
8081B	959-98-8	Endosulfan I	µg/kg	0.86 U

U-Compound not detected above reporting limit
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			Sample Name	SL-501-NBZ-SB-0.0-0.5	SL-505-NBZ-SB-0.0-0.5	SL-508-NBZ-SB-0.0-0.5	SL-508-NBZ-SB-4.0-5.0	SL-509-NBZ-SB-0.0-0.5	SL-509-NBZ-SB-2.5-3.5	SL-809-NBZ-SB-2.5-3.5	SL-510-NBZ-SB-0.0-0.5	SL-510-NBZ-SB-4.0-5.0
			Sample Type	N	N	N	N	N	N	FD	N	N
			Sample Date	12/06/2013	12/13/2013	12/04/2013	12/04/2013	12/03/2013	12/03/2013	12/03/2013	12/03/2013	12/03/2013
			SDG	PH141	PH151	PH139	PH139	PH138	PH138	PH138	PH138	PH138
			Start Depth	0	0	0	4	0	2.5	2.5	0	4
			End Depth	0.5	0.5	0.5	5	0.5	3.5	3.5	0.5	5
Analytic Method	CAS Number	Chemical Name	Unit									
9045M	pH	pH	pH	6.98	6.93	6.93	7.06	7.23	7.60	7.65	7.93	8.04

U-Compound not detected above reporting limit
J-Result is an estimated value
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			Sample Name	SL-511-NBZ-SB-0.0-0.5	SL-511-NBZ-SB-2.5-3.5	SL-516-NBZ-SB-0.0-0.5	SL-516-NBZ-SB-4.0-5.0	SL-517-NBZ-SB-0.0-0.5	SL-517-NBZ-SB-2.0-3.0	SL-518-NBZ-SB-0.0-0.5	SL-519-NBZ-SB-0.0-0.5	SL-520-NBZ-SB-0.0-0.5
			Sample Type	N	N	N	N	N	N	N	N	N
			Sample Date	12/04/2013	12/04/2013	12/09/2013	12/09/2013	12/16/2013	12/16/2013	12/16/2013	12/16/2013	12/16/2013
			SDG	PH139	PH139	PH142	PH142	PH155	PH155	PH155	PH155	PH155
			Start Depth	0	2.5	0	4	0	2	0	0	0
			End Depth	0.5	3.5	0.5	5	0.5	3	0.5	0.5	0.5
Analytic Method	CAS Number	Chemical Name	Unit									
9045M	pH	pH	pH	6.53	6.72	6.87	7.09	6.50	6.91	6.32	6.56	7.17

U-Compound not detected above reporting limit
J-Result is an estimated value
R-Result is rejected if R qualifier is in first position. If R qualifier is after another qualifier, result is not rejected but qualified as estimated during validation

			Sample Name	SL-521-NBZ-SB-0.0-0.5	SL-544-NBZ-SB-0.0-0.5	SL-844-NBZ-SB-0.0-0.5	SL-545-NBZ-SB-0.0-0.5	SL-845-NBZ-SB-0.0-0.5
			Sample Type	N	N	FD	N	FD
			Sample Date	12/13/2013	12/12/2013	12/12/2013	12/04/2013	12/04/2013
			SDG	PH151	PH148	PH148	PH139	PH139
			Start Depth	0	0	0	0	0
			End Depth	0.5	0.5	0.5	0.5	0.5
Analytic Method	CAS Number	Chemical Name	Unit					
9045M	pH	pH	pH	7.68	6.47	6.41	6.97	7.06

U-Compound not detected above reporting limit
J-Result is an estimated value
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			Sample Name	SL-502-NBZ-SB-0.0-0.5	SL-502-NBZ-SB-4.0-5.0	SL-503-NBZ-SB-0.0-0.5	SL-503-NBZ-SB-2.0-3.0	SL-504-NBZ-SB-0.0-0.5	SL-804-NBZ-SB-0.0-0.5	SL-505-NBZ-SB-0.0-0.5	SL-506-NBZ-SB-0.0-0.5	SL-507-NBZ-SB-0.0-0.5
			Sample Type	N	N	N	N	N	FD	N	N	N
			Sample Date	12/03/2013	12/03/2013	12/03/2013	12/03/2013	12/03/2013	12/03/2013	12/13/2013	12/04/2013	12/04/2013
			SDG	PH138	PH138	PH138	PH138	PH138	PH138	PH151	PH139	PH139
			Start Depth	0	4	0	2	0	0	0	0	0
			End Depth	0.5	5	0.5	3	0.5	0.5	0.5	0.5	0.5
Analytic Method	CAS Number	Chemical Name	Unit									
8015M	PHCC12C14	EFH (C12-C14)	mg/kg	5.4 U	5.5 U	5.2 U	5.1 U	5.1 U	5.1 U	26 U	5.2 U	5.2 U
8015M	PHCC15C20	EFH (C15-C20)	mg/kg	5.4 U	5.5 U	5.2 U	5.1 U	5.1 U	5.1 U	15 J Z	5.2 U	5.2 U
8015M	PHCC21C30	EFH (C21-C30)	mg/kg	5.4 U	5.5 U	6.5	5.1 U	5.1 U	5.1 U	67	4.3 J Z	5.7
8015M	PHCC30C40	EFH (C30-C40)	mg/kg	11 U	11 U	24	10 U	10 U	10 U	230	13	13
8015M	PHCC8C11	EFH (C8-C11)	mg/kg	5.4 U	5.5 U	5.2 U	5.1 U	5.1 U	5.1 U	26 U	5.2 U	5.2 U

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J-Result is an estimated value
R-Result is rejected if R qualifier is in first position. If R qualifier is after another qualifier, result is not rejected but qualified as estimated during validation

			Sample Name	SL-507-NBZ-SB-3.5-4.5	SL-508-NBZ-SB-0.0-0.5	SL-508-NBZ-SB-4.0-5.0	SL-509-NBZ-SB-0.0-0.5	SL-509-NBZ-SB-2.5-3.5	SL-809-NBZ-SB-2.5-3.5	SL-510-NBZ-SB-0.0-0.5	SL-510-NBZ-SB-4.0-5.0	SL-511-NBZ-SB-0.0-0.5
			Sample Type	N	N	N	N	N	FD	N	N	N
			Sample Date	12/04/2013	12/04/2013	12/04/2013	12/03/2013	12/03/2013	12/03/2013	12/03/2013	12/03/2013	12/04/2013
			SDG	PH139	PH139	PH139	PH138	PH138	PH138	PH138	PH138	PH139
			Start Depth	3.5	0	4	0	2.5	2.5	0	4	0
			End Depth	4.5	0.5	5	0.5	3.5	3.5	0.5	5	0.5
Analytic Method	CAS Number	Chemical Name	Unit									
8015M	PHCC12C14	EFH (C12-C14)	mg/kg	5.3 U	5.5 U	5.5 U	5.1 U	5.2 U	5.3 U	5.2 U	5.5 U	5.2 U
8015M	PHCC15C20	EFH (C15-C20)	mg/kg	5.3 U	5.5 U	5.5 U	5.1 U	5.2 U	5.3 U	5.2 U	5.5 U	5.9
8015M	PHCC21C30	EFH (C21-C30)	mg/kg	3.3 J Z	3.2 J Z	3.2 J Z	5.1 U	5.2 U	5.3 U	5.2 U	5.5 U	23
8015M	PHCC30C40	EFH (C30-C40)	mg/kg	8.3 J Z	7.9 J Z	8.2 J Z	10 U	10 U	11 U	10 U	11 U	59
8015M	PHCC8C11	EFH (C8-C11)	mg/kg	5.3 U	5.5 U	5.5 U	5.1 U	5.2 U	5.3 U	5.2 U	5.5 U	5.2 U

U-Compound not detected above reporting limit
J-Result is an estimated value
R-Result is rejected if R qualifier is in first position. If R qualifier is after another qualifier, result is not rejected but qualified as estimated during validation

			Sample Name	SL-511-NBZ-SB-2.5-3.5	SL-512-NBZ-SB-0.0-0.5	SL-513-NBZ-SB-0.0-0.5	SL-516-NBZ-SB-0.0-0.5	SL-516-NBZ-SB-4.0-5.0	SL-517-NBZ-SB-0.0-0.5	SL-517-NBZ-SB-2.0-3.0	SL-518-NBZ-SB-0.0-0.5	SL-519-NBZ-SB-0.0-0.5
			Sample Type	N	N	N	N	N	N	N	N	N
			Sample Date	12/04/2013	12/06/2013	12/09/2013	12/09/2013	12/09/2013	12/16/2013	12/16/2013	12/16/2013	12/16/2013
			SDG	PH139	PH141	PH142	PH142	PH142	PH155	PH155	PH155	PH155
			Start Depth	2.5	0	0	0	4	0	2	0	0
			End Depth	3.5	0.5	0.5	0.5	5	0.5	3	0.5	0.5
Analytic Method	CAS Number	Chemical Name	Unit									
8015M	PHCC12C14	EFH (C12-C14)	mg/kg	5.3 U	5.1 U	11 U	5.3 U	5.1 U	5.2 U	5.3 U	26 U	5.1 U
8015M	PHCC15C20	EFH (C15-C20)	mg/kg	5.3 U	2.4 J Z	12	5.3 U	5.1 U	2.1 J Z	5.3 U	26 U	2.8 J Z
8015M	PHCC21C30	EFH (C21-C30)	mg/kg	3.5 J Z	12	47	14	5.1 U	11	5.0 J Z	59	18
8015M	PHCC30C40	EFH (C30-C40)	mg/kg	8.9 J Z	38	120	21	10 U	31	9.3 J Z	110	42
8015M	PHCC8C11	EFH (C8-C11)	mg/kg	5.3 U	5.1 U	11 U	5.3 U	5.1 U	5.2 U	5.3 U	14 J Z	5.1 U

U-Compound not detected above reporting limit
J-Result is an estimated value
R-Result is rejected if R qualifier is in first position. If R qualifier is after another qualifier, result is not rejected but qualified as estimated during validation

			Sample Name	SL-520-NBZ-SB-0.0-0.5	SL-521-NBZ-SB-0.0-0.5	SL-522-NBZ-SB-0.0-0.5	SL-522-NBZ-SB-2.5-3.5	SL-523-NBZ-SB-0.0-0.5	SL-524-NBZ-SB-0.0-0.5	SL-824-NBZ-SB-0.0-0.5	SL-525-NBZ-SB-0.0-0.5	SL-525-NBZ-SB-4.0-5.0
			Sample Type	N	N	N	N	N	N	FD	N	N
			Sample Date	12/16/2013	12/13/2013	12/09/2013	12/09/2013	12/09/2013	12/09/2013	12/09/2013	12/05/2013	12/05/2013
			SDG	PH155	PH151	PH142	PH142	PH142	PH142	PH142	PH140	PH140
			Start Depth	0	0	0	2.5	0	0	0	0	4
			End Depth	0.5	0.5	0.5	3.5	0.5	0.5	0.5	0.5	5
Analytic Method	CAS Number	Chemical Name	Unit									
8015M	PHCC12C14	EFH (C12-C14)	mg/kg	5.0 U	5.2 U	5.2 U	5.2 U	5.2 U	10 U	5.2 U	5.1 U	5.1 U
8015M	PHCC15C20	EFH (C15-C20)	mg/kg	2.1 J Z	4.2 J Z	2.7 J Z	5.2 U	3.3 J Z	8.4 J FD, Q, Z	2.2 J FD, Z	2.5 J Z	5.1 U
8015M	PHCC21C30	EFH (C21-C30)	mg/kg	11	27	23	5.2 U	36	58 J FD	28 J FD	18	5.1 U
8015M	PHCC30C40	EFH (C30-C40)	mg/kg	23	57	43	10 U	72	120 J FD	50 J FD	20	10 U
8015M	PHCC8C11	EFH (C8-C11)	mg/kg	5.0 U	5.2 U	5.2 U	5.2 U	5.2 U	10 U	5.2 U	5.1 U	5.1 U

U-Compound not detected above reporting limit
J-Result is an estimated value
R-Result is rejected if R qualifier is in first position. If R qualifier is after another qualifier, result is not rejected but qualified as estimated during validation

			Sample Name	SL-825-NBZ-SB-4.0-5.0	SL-526-NBZ-SB-0.0-0.5	SL-526-NBZ-SB-2.5-3.5	SL-530-NBZ-SB-0.0-0.5	SL-531-NBZ-SB-0.0-0.5	SL-532-NBZ-SB-0.0-0.5	SL-533-NBZ-SB-0.0-0.5	SL-534-NBZ-SB-0.0-0.5	SL-535-NBZ-SB-0.0-0.5
			Sample Type	FD	N	N	N	N	N	N	N	N
			Sample Date	12/05/2013	12/05/2013	12/05/2013	12/03/2013	12/03/2013	12/03/2013	12/03/2013	12/06/2013	12/06/2013
			SDG	PH140	PH140	PH140	PH138	PH138	PH138	PH138	PH141	PH141
			Start Depth	4	0	2.5	0	0	0	0	0	0
			End Depth	5	0.5	3.5	0.5	0.5	0.5	0.5	0.5	0.5
Analytic Method	CAS Number	Chemical Name	Unit									
8015M	PHCC12C14	EFH (C12-C14)	mg/kg	5.1 U	26 U	5.2 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	6.0 U
8015M	PHCC15C20	EFH (C15-C20)	mg/kg	5.1 U	13 J Z	5.2 U	5.1 U	5.1 U	5.1 U	5.1 U	2.5 J Z	7.0
8015M	PHCC21C30	EFH (C21-C30)	mg/kg	5.1 U	110	8.4	5.1 U	5.1 U	5.1 U	2.8 J Z	18	36
8015M	PHCC30C40	EFH (C30-C40)	mg/kg	10 U	210	14	4.2 J Z	7.9 J Z	10 U	6.4 J Z	42	85
8015M	PHCC8C11	EFH (C8-C11)	mg/kg	5.1 U	26 U	5.2 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	6.0 U

U-Compound not detected above reporting limit
J-Result is an estimated value
R-Result is rejected if R qualifier is in first position. If R qualifier is after another qualifier, result is not rejected but qualified as estimated during validation

			Sample Name	SL-537-NBZ-SB-0.0-0.5	SL-538-NBZ-SB-0.0-0.5	SL-539-NBZ-SB-0.0-0.5	SL-543-NBZ-SB-0.0-0.5	SL-544-NBZ-SB-0.0-0.5	SL-844-NBZ-SB-0.0-0.5	SL-545-NBZ-SB-0.0-0.5	SL-845-NBZ-SB-0.0-0.5	SL-546-NBZ-SB-0.0-0.5
			Sample Type	N	N	N	N	N	FD	N	FD	N
			Sample Date	12/06/2013	12/06/2013	12/12/2013	12/12/2013	12/12/2013	12/12/2013	12/04/2013	12/04/2013	12/04/2013
			SDG	PH141	PH141	PH148	PH148	PH148	PH148	PH139	PH139	PH139
			Start Depth	0	0	0	0	0	0	0	0	0
			End Depth	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Analytic Method	CAS Number	Chemical Name	Unit									
8015M	PHCC12C14	EFH (C12-C14)	mg/kg	10 U	5.1 U	26 U	26 U	5.1 U	5.1 U	27 U	26 U	26 U
8015M	PHCC15C20	EFH (C15-C20)	mg/kg	8.1 J Z	2.2 J Z	21 J Z	26 U	5.1 U	5.1 U	35	33	11 J Z
8015M	PHCC21C30	EFH (C21-C30)	mg/kg	43	11	120	72	15 J FD	6.8 J FD	150	200	76
8015M	PHCC30C40	EFH (C30-C40)	mg/kg	140	19	240	170	30 J Q	20	370	460	250
8015M	PHCC8C11	EFH (C8-C11)	mg/kg	10 U	5.1 U	26 U	26 U	5.1 U	5.1 U	27 U	26 U	26 U

U-Compound not detected above reporting limit
J-Result is an estimated value
R-Result is rejected if R qualifier is in first position. If R qualifier is after another qualifier, result is not rejected but qualified as estimated during validation

			Sample Name	SL-547-NBZ-SB-0.0-0.5	SL-548-NBZ-SB-0.0-0.5	SL-549-NBZ-SB-0.0-0.5	SL-556-NBZ-SB-0.0-0.5	SL-556-NBZ-SB-4.0-5.0
			Sample Type	N	N	N	N	N
			Sample Date	12/04/2013	12/04/2013	12/04/2013	12/06/2013	12/06/2013
			SDG	PH139	PH139	PH139	PH141	PH141
			Start Depth	0	0	0	0	4
			End Depth	0.5	0.5	0.5	0.5	5
Analytic Method	CAS Number	Chemical Name	Unit					
8015M	PHCC12C14	EFH (C12-C14)	mg/kg	11 U	5.2 U	5.1 U	26 U	5.2 U
8015M	PHCC15C20	EFH (C15-C20)	mg/kg	10 J Z	5.2 U	5.1 U	28	5.2
8015M	PHCC21C30	EFH (C21-C30)	mg/kg	62	5.2 U	13	180	30
8015M	PHCC30C40	EFH (C30-C40)	mg/kg	150	10 U	24	490	74
8015M	PHCC8C11	EFH (C8-C11)	mg/kg	11 U	5.2 U	5.1 U	26 U	5.2 U

U-Compound not detected above reporting limit
J-Result is an estimated value
R-Result is rejected if R qualifier is in first position. If R qualifier is after another qualifier, result is not rejected but qualified as estimated during validation

			Sample Name	SL-502-NBZ-SB-4.0-5.0	SL-503-NBZ-SB-2.0-3.0	SL-507-NBZ-SB-3.5-4.5	SL-508-NBZ-SB-4.0-5.0	SL-509-NBZ-SB-2.5-3.5	SL-809-NBZ-SB-2.5-3.5	SL-510-NBZ-SB-4.0-5.0	SL-511-NBZ-SB-2.5-3.5	SL-516-NBZ-SB-4.0-5.0
			Sample Type	N	N	N	N	N	FD	N	N	N
			Sample Date	12/03/2013	12/03/2013	12/04/2013	12/04/2013	12/03/2013	12/03/2013	12/03/2013	12/04/2013	12/09/2013
			SDG	PH138	PH138	PH139	PH139	PH138	PH138	PH138	PH139	PH142
			Start Depth	4	2	3.5	4	2.5	2.5	4	2.5	4
			End Depth	5	3	4.5	5	3.5	3.5	5	3.5	5
Analytic Method	CAS Number	Chemical Name	Unit									
8015M	GROC5C12	Gasoline Range Organics (C5-C12)	mg/kg	1.1 U	1.0 U	0.6 J Z	1 U	1.1 U	1.1 U	1.1 U	0.3 J Z	1.0 U

U-Compound not detected above reporting limit
J-Result is an estimated value
R-Result is rejected if R qualifier is in first position. If R qualifier is after another qualifier, result is not rejected but qualified as estimated during validation

			Sample Name	SL-517-NBZ-SB-2.0-3.0	SL-522-NBZ-SB-2.5-3.5	SL-556-NBZ-SB-4.0-5.0
			Sample Type	N	N	N
			Sample Date	12/16/2013	12/09/2013	12/06/2013
			SDG	PH155	PH142	PH141
			Start Depth	2	2.5	4
			End Depth	3	3.5	5
Analytic Method	CAS Number	Chemical Name	Unit			
8015M	GROC5C12	Gasoline Range Organics (C5-C12)	mg/kg	1.0 U	1.1 U	1.0 U

U-Compound not detected above reporting limit
J-Result is an estimated value
R-Result is rejected if R qualifier is in first position. If R qualifier is after another qualifier, result is not rejected but qualified as estimated during validation

Appendix B
Laboratory Reports
(On CD)

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Analysis Report

REVISED

ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

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

May 06, 2013

Project: Phase 3 Subarea 7

Submittal Date: 04/10/2013
Group Number: 1381875
SDG: PH027
PO Number: 1204-002-001-AL
State of Sample Origin: CA

Client Sample Description	Lancaster Labs (LLI) #
SL-539-SA7-SB-0.0-0.5 Soil	7016766
SL-542-SA7-SB-0.0-0.5 Soil	7016767
SL-540-SA7-SB-0.0-0.5 Soil	7016768
SL-540-SA7-SB-0.0-0.5MS Soil	7016769
SL-540-SA7-SB-0.0-0.5MSD Soil	7016770
SL-540-SA7-SB-0.0-0.5DUP Soil	7016771
SL-840-SA7-SB-0.0-0.5 Soil	7016772
SL-544-SA7-SB-0.0-0.5 Soil	7016773
SL-546-SA7-SB-0.0-0.5 Soil	7016774

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

ELECTRONIC COPY TO	LLI	Attn: Nicole Maljovec
ELECTRONIC COPY TO	Eurofins Lancaster Labs	Attn: Natalie Luciano

REVISED

Respectfully Submitted,

Nicole L. Maljovec
Principal Specialist Group Leader

(717) 556-7259

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Analysis Report

REVISED

Sample Description: SL-539-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7016766
LLI Group # 1381875
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/08/2013 12:45

Submitted: 04/10/2013 09:20
Reported: 05/06/2013 13:50

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

539-- SDG#: PH027-01

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	17	U	17	6.8	10
12969	Acenaphthylene	208-96-8	17	U	17	3.4	10
12969	Anthracene	120-12-7	6.0	J	17	3.4	10
12969	Benzo(a)anthracene	56-55-3	17	U	17	6.8	10
12969	Benzo(a)pyrene	50-32-8	17	U	17	6.8	10
12969	Benzo(b)fluoranthene	205-99-2	11	J	17	6.8	10
12969	Benzo(e)pyrene	192-97-2	170	U	170	34	10
12969	Benzo(g,h,i)perylene	191-24-2	17	U	17	6.8	10
12969	Benzo(k)fluoranthene	207-08-9	17	U	17	6.8	10
12969	Butylbenzylphthalate	85-68-7	180	U	180	61	10
12969	Di-n-butylphthalate	84-74-2	180	U	180	61	10
12969	Chrysene	218-01-9	22		17	3.4	10
12969	Dibenz(a,h)anthracene	53-70-3	17	U	17	6.8	10
12969	Diethylphthalate	84-66-2	180	U	180	61	10
12969	Dimethylphthalate	131-11-3	180	U	180	61	10
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	180	U	180	61	10
12969	Fluoranthene	206-44-0	82		17	6.8	10
12969	Fluorene	86-73-7	17	U	17	6.8	10
12969	Indeno(1,2,3-cd)pyrene	193-39-5	17	U	17	6.8	10
12969	1-Methylnaphthalene	90-12-0	17	U	17	6.8	10
12969	2-Methylnaphthalene	91-57-6	17	U	17	6.8	10
12969	Naphthalene	91-20-3	17	U	17	6.8	10
12969	N-Nitrosodimethylamine	62-75-9	17	U	17	6.8	10
12969	Di-n-octylphthalate	117-84-0	180	U	180	61	10
12969	Phenanthrene	85-01-8	63		17	6.8	10
12969	Pyrene	129-00-0	64		17	6.8	10
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
10592	Aroclor 5432	63496-31-1	34	U	34	10	1
10592	Aroclor 5442	12642-23-8	34	U	34	10	1
10592	Aroclor 5460	11126-42-4	23	J	34	10	1
10592	PCB-1016	12674-11-2	17	U	17	3.4	1
10592	PCB-1221	11104-28-2	17	U	17	5.2	1
10592	PCB-1232	11141-16-5	17	U	17	4.2	1
10592	PCB-1242	53469-21-9	17	U	17	3.4	1
10592	PCB-1248	12672-29-6	17	U	17	3.4	1
10592	PCB-1254	11097-69-1	37		17	4.5	1
10592	PCB-1260	11096-82-5	17	U	17	4.0	1
10592	PCB-1262	37324-23-5	17	U	17	3.4	1
10592	PCB-1268	11100-14-4	17	U	17	3.4	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	51	U	51	20	10
12952	EFH (C15-C20)	n.a.	51	U	51	20	10
12952	EFH (C21-C30)	n.a.	140		51	20	10
12952	EFH (C30-C40)	n.a.	700		100	41	10
12952	EFH (C8-C11)	n.a.	51	U	51	20	10
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	

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

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Analysis Report

REVISED

Sample Description: SL-539-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7016766
LLI Group # 1381875
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/08/2013 12:45

Submitted: 04/10/2013 09:20
Reported: 05/06/2013 13:50

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

539-- SDG#: PH027-01

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	11,100		41.0	7.90	1
06944	Antimony	7440-36-0	4.10	U	4.10	0.512	1
06935	Arsenic	7440-38-2	4.15		4.10	0.338	1
06946	Barium	7440-39-3	72.8		1.02	0.0338	1
06947	Beryllium	7440-41-7	0.480	J	1.02	0.0686	1
07914	Boron	7440-42-8	4.32	J	10.2	0.850	1
06949	Cadmium	7440-43-9	0.161	J	1.02	0.0338	1
01650	Calcium	7440-70-2	3,360		20.5	4.12	1
06951	Chromium	7440-47-3	14.6		3.07	0.0902	1
06952	Cobalt	7440-48-4	3.98		1.02	0.0922	1
06953	Copper	7440-50-8	6.64		2.05	0.184	1
01654	Iron	7439-89-6	18,100		41.0	3.89	1
06955	Lead	7439-92-1	5.70		3.07	0.482	1
01656	Lithium	7439-93-2	24.9		4.1	0.56	1
01657	Magnesium	7439-95-4	4,370		10.2	1.77	1
06958	Manganese	7439-96-5	253		1.02	0.0850	1
06960	Molybdenum	7439-98-7	2.05	U	2.05	0.174	1
06961	Nickel	7440-02-0	8.54		2.05	0.113	1
10145	Phosphorus	7723-14-0	396		10.2	0.523	1
01662	Potassium	7440-09-7	3,290		102	13.8	1
01667	Sodium	7440-23-5	66.5	J	102	17.1	1
06969	Tin	7440-31-5	2.66	J	10.2	0.225	1
06970	Titanium	7440-32-6	1,030		1.02	0.174	1
06971	Vanadium	7440-62-2	29.3		1.02	0.113	1
06972	Zinc	7440-66-6	66.4		4.10	0.205	1
10146	Zirconium	7440-67-7	5.12	U	5.12	0.850	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.410	U	0.410	0.102	2
06142	Silver	7440-22-4	0.0585	J	0.205	0.0205	2
06144	Strontium	7440-24-6	13.9		0.410	0.0348	2
06145	Thallium	7440-28-0	0.255		0.205	0.0307	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0202	U	0.0202	0.0104	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045C	n.a.	7.59		0.0100	0.0100	1
	The pH was measured in water at 21.3 C.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	2.4		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

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

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Analysis Report

REVISED

Sample Description: SL-539-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7016766
LLI Group # 1381875
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/08/2013 12:45

Submitted: 04/10/2013 09:20
Reported: 05/06/2013 13:50

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

539-- SDG#: PH027-01

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	0.0932	J	0.998	0.0389	1
11031	12378-PeCDD	40321-76-4	0.615	JBQ	4.99	0.0804	1
11031	123478-HxCDD	39227-28-6	1.72	JB	4.99	0.0596	1
11031	123678-HxCDD	57653-85-7	4.86	JB	4.99	0.0611	1
11031	123789-HxCDD	19408-74-3	2.77	JB	4.99	0.0570	1
11031	1234678-HpCDD	35822-46-9	158	B	4.99	0.0782	1
11031	OCDD	3268-87-9	1,740	B	9.98	0.0518	1
11031	2378-TCDF	51207-31-9	0.730	J	0.998	0.0830	1
11031	12378-PeCDF	57117-41-6	3.51	JB	4.99	0.0476	1
11031	23478-PeCDF	57117-31-4	0.783	JB	4.99	0.0430	1
11031	123478-HxCDF	70648-26-9	2.00	JB	4.99	0.0488	1
11031	123678-HxCDF	57117-44-9	1.24	JB	4.99	0.0483	1
11031	123789-HxCDF	72918-21-9	0.745	J	4.99	0.0501	1
11031	234678-HxCDF	60851-34-5	1.28	JB	4.99	0.0480	1
11031	1234678-HpCDF	67562-39-4	26.5	B	4.99	0.0297	1
11031	1234789-HpCDF	55673-89-7	2.65	JB	4.99	0.0339	1
11031	OCDF	39001-02-0	50.9	B	9.98	0.0256	1
Toxic Equivalents	**EPA 1613B**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	4.38				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	77	25 - 164
13C12-12378-PeCDD	81	25 - 181
13C12-123478-HxCDD	82	32 - 141
13C12-123678-HxCDD	81	28 - 130
13C12-123789-HxCDD	80	28 - 130
13C12-1234678-HpCDD	91	23 - 140
13C12-OCDD	111	17 - 157
13C12-2378-TCDF	74	24 - 169
13C12-12378-PeCDF	80	24 - 185
13C12-23478-PeCDF	81	21 - 178
13C12-123478-HxCDF	86	26 - 152
13C12-123678-HxCDF	85	26 - 123
13C12-234678-HxCDF	85	28 - 136
13C12-123789-HxCDF	88	29 - 147
13C12-1234678-HpCDF	96	28 - 143
13C12-1234789-HpCDF	96	26 - 138
13C12-OCDF	113	17 - 157

Dioxins/Furans Data Qualifiers:

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

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

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Analysis Report

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REVISED

Sample Description: SL-539-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7016766
LLI Group # 1381875
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/08/2013 12:45

Submitted: 04/10/2013 09:20
Reported: 05/06/2013 13:50

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

539-- SDG#: PH027-01

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

F *Interference is present*
S *Saturation of detection signal*

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

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Analysis Report

REVISED

Sample Description: SL-539-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7016766
LLI Group # 1381875
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/08/2013 12:45

Submitted: 04/10/2013 09:20
Reported: 05/06/2013 13:50

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

539-- SDG#: PH027-01

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13105SLA026	04/23/2013	04:35	Mark A Clark	10
10811	BNA Soil Microwave SIM	SW-846 3546	1	13105SLA026	04/15/2013	14:00	David S Schrum	1
10592	19a PCBs and PCTs 8082A	SW-846 8082A	1	131050020A	04/19/2013	23:09	Jessica L Miller	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	131050020A	04/16/2013	05:50	Roman Kuropatkin	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	131030014A	04/16/2013	23:06	Heather E Williams	10
12959	EFH soil ext.(microwave)	SW-846 3546	1	131030014A	04/14/2013	23:55	Roman Kuropatkin	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13101001	04/12/2013	20:15	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13101001	04/11/2013	12:30	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010C	1	131050637003	04/19/2013	17:13	Katlin N Cataldi	1
06944	Antimony	SW-846 6010C	1	131050637003	04/19/2013	17:13	Katlin N Cataldi	1
06935	Arsenic	SW-846 6010C	1	131050637003	04/19/2013	17:13	Katlin N Cataldi	1
06946	Barium	SW-846 6010C	1	131050637003	04/19/2013	17:13	Katlin N Cataldi	1
06947	Beryllium	SW-846 6010C	2	131050637003	04/19/2013	17:13	Katlin N Cataldi	1
07914	Boron	SW-846 6010C	2	131050637003	04/21/2013	14:23	Katlin N Cataldi	1
06949	Cadmium	SW-846 6010C	1	131050637003	04/19/2013	17:13	Katlin N Cataldi	1
01650	Calcium	SW-846 6010C	1	131050637003	04/19/2013	17:13	Katlin N Cataldi	1
06951	Chromium	SW-846 6010C	1	131050637003	04/19/2013	17:13	Katlin N Cataldi	1
06952	Cobalt	SW-846 6010C	1	131050637003	04/19/2013	17:13	Katlin N Cataldi	1
06953	Copper	SW-846 6010C	1	131050637003	04/19/2013	17:13	Katlin N Cataldi	1
01654	Iron	SW-846 6010C	1	131050637003	04/19/2013	17:13	Katlin N Cataldi	1
06955	Lead	SW-846 6010C	1	131050637003	04/19/2013	17:13	Katlin N Cataldi	1
01656	Lithium	SW-846 6010C	2	131050637003	04/19/2013	17:13	Katlin N Cataldi	1
01657	Magnesium	SW-846 6010C	1	131050637003	04/19/2013	17:13	Katlin N Cataldi	1
06958	Manganese	SW-846 6010C	1	131050637003	04/19/2013	17:13	Katlin N Cataldi	1
06960	Molybdenum	SW-846 6010C	2	131050637003	04/19/2013	17:13	Katlin N Cataldi	1
06961	Nickel	SW-846 6010C	1	131050637003	04/19/2013	17:13	Katlin N Cataldi	1
10145	Phosphorus	SW-846 6010C	1	131050637003	04/19/2013	17:13	Katlin N Cataldi	1
01662	Potassium	SW-846 6010C	1	131050637003	04/19/2013	17:13	Katlin N Cataldi	1
01667	Sodium	SW-846 6010C	1	131050637003	04/19/2013	17:13	Katlin N Cataldi	1
06969	Tin	SW-846 6010C	1	131050637003	04/19/2013	17:13	Katlin N Cataldi	1
06970	Titanium	SW-846 6010C	1	131050637003	04/19/2013	17:13	Katlin N Cataldi	1
06971	Vanadium	SW-846 6010C	1	131050637003	04/19/2013	17:13	Katlin N Cataldi	1
06972	Zinc	SW-846 6010C	1	131050637003	04/19/2013	17:13	Katlin N Cataldi	1
10146	Zirconium	SW-846 6010C	1	131050637003	04/19/2013	17:13	Katlin N Cataldi	1
06141	Selenium	SW-846 6020A	1	131050637003B	04/21/2013	00:02	David K Beck	2
06142	Silver	SW-846 6020A	1	131050637003A	04/21/2013	00:02	David K Beck	2
06144	Strontium	SW-846 6020A	1	131050637003A	04/21/2013	00:02	David K Beck	2
06145	Thallium	SW-846 6020A	1	131050637003A	04/21/2013	00:02	David K Beck	2

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

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Analysis Report

REVISED

Sample Description: SL-539-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7016766
LLI Group # 1381875
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/08/2013 12:45

Submitted: 04/10/2013 09:20
Reported: 05/06/2013 13:50

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

539-- SDG#: PH027-01

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00159	3a Mercury 7471A	SW-846 7471B	1	131060638003	04/18/2013 07:06	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	131050637003	04/17/2013 09:07	Denise K Conners	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	131060638003	04/17/2013 11:40	Denise K Conners	1
00394	15a pH by 9045C	SW-846 9045D modified	1	13101039401A	04/11/2013 19:40	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13106162401A	04/16/2013 21:43	Scott W Freisher	1

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

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Analysis Report

REVISED

Sample Description: SL-542-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7016767
LLI Group # 1381875
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/09/2013 08:40

Submitted: 04/10/2013 09:20
Reported: 05/06/2013 13:50

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

542-- SDG#: PH027-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.68	1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.34	1
12969	Anthracene	120-12-7	1.8		1.7	0.34	1
12969	Benzo(a)anthracene	56-55-3	5.8		1.7	0.68	1
12969	Benzo(a)pyrene	50-32-8	5.6		1.7	0.68	1
12969	Benzo(b)fluoranthene	205-99-2	8.0		1.7	0.68	1
12969	Benzo(e)pyrene	192-97-2	4.0	J	17	3.4	1
12969	Benzo(g,h,i)perylene	191-24-2	3.7		1.7	0.68	1
12969	Benzo(k)fluoranthene	207-08-9	4.4		1.7	0.68	1
12969	Butylbenzylphthalate	85-68-7	18	U	18	6.1	1
12969	Di-n-butylphthalate	84-74-2	18	U	18	6.1	1
12969	Chrysene	218-01-9	7.8		1.7	0.34	1
12969	Dibenz(a,h)anthracene	53-70-3	1.0	J	1.7	0.68	1
12969	Diethylphthalate	84-66-2	18	U	18	6.1	1
12969	Dimethylphthalate	131-11-3	18	U	18	6.1	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	18	U	18	6.1	1
12969	Fluoranthene	206-44-0	12		1.7	0.68	1
12969	Fluorene	86-73-7	0.71	J	1.7	0.68	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	3.2		1.7	0.68	1
12969	1-Methylnaphthalene	90-12-0	1.7	U	1.7	0.68	1
12969	2-Methylnaphthalene	91-57-6	1.7	U	1.7	0.68	1
12969	Naphthalene	91-20-3	1.2	J	1.7	0.68	1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.68	1
12969	Di-n-octylphthalate	117-84-0	18	U	18	6.1	1
12969	Phenanthrene	85-01-8	6.6		1.7	0.68	1
12969	Pyrene	129-00-0	13		1.7	0.68	1
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
10592	Aroclor 5432	63496-31-1	34	U	34	10	1
10592	Aroclor 5442	12642-23-8	34	U	34	10	1
10592	Aroclor 5460	11126-42-4	34	U	34	10	1
10592	PCB-1016	12674-11-2	17	U	17	3.4	1
10592	PCB-1221	11104-28-2	17	U	17	5.2	1
10592	PCB-1232	11141-16-5	17	U	17	4.2	1
10592	PCB-1242	53469-21-9	17	U	17	3.4	1
10592	PCB-1248	12672-29-6	17	U	17	3.4	1
10592	PCB-1254	11097-69-1	17	U	17	4.5	1
10592	PCB-1260	11096-82-5	17	U	17	4.0	1
10592	PCB-1262	37324-23-5	17	U	17	3.4	1
10592	PCB-1268	11100-14-4	17	U	17	3.4	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.1	U	5.1	2.0	1
12952	EFH (C15-C20)	n.a.	3.5	J	5.1	2.0	1
12952	EFH (C21-C30)	n.a.	7.6		5.1	2.0	1
12952	EFH (C30-C40)	n.a.	53		10	4.1	1
12952	EFH (C8-C11)	n.a.	5.1	U	5.1	2.0	1
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	

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

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Analysis Report

REVISED

Sample Description: SL-542-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7016767
LLI Group # 1381875
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/09/2013 08:40

Submitted: 04/10/2013 09:20
Reported: 05/06/2013 13:50

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

542-- SDG#: PH027-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	13,400		40.8	7.87	1
06944	Antimony	7440-36-0	4.08	U	4.08	0.510	1
06935	Arsenic	7440-38-2	4.48		4.08	0.337	1
06946	Barium	7440-39-3	70.3		1.02	0.0337	1
06947	Beryllium	7440-41-7	0.527	J	1.02	0.0684	1
07914	Boron	7440-42-8	10.2	U	10.2	0.847	1
06949	Cadmium	7440-43-9	0.118	J	1.02	0.0337	1
01650	Calcium	7440-70-2	3,600		20.4	4.10	1
06951	Chromium	7440-47-3	15.0		3.06	0.0898	1
06952	Cobalt	7440-48-4	4.04		1.02	0.0918	1
06953	Copper	7440-50-8	6.05		2.04	0.184	1
01654	Iron	7439-89-6	17,600		40.8	3.88	1
06955	Lead	7439-92-1	4.91		3.06	0.480	1
01656	Lithium	7439-93-2	21.7		4.1	0.56	1
01657	Magnesium	7439-95-4	3,950		10.2	1.77	1
06958	Manganese	7439-96-5	241		1.02	0.0847	1
06960	Molybdenum	7439-98-7	2.04	U	2.04	0.173	1
06961	Nickel	7440-02-0	8.56		2.04	0.112	1
10145	Phosphorus	7723-14-0	369		10.2	0.520	1
01662	Potassium	7440-09-7	2,560		102	13.8	1
01667	Sodium	7440-23-5	71.7	J	102	17.0	1
06969	Tin	7440-31-5	2.51	J	10.2	0.224	1
06970	Titanium	7440-32-6	932		1.02	0.173	1
06971	Vanadium	7440-62-2	30.4		1.02	0.112	1
06972	Zinc	7440-66-6	48.8		4.08	0.204	1
10146	Zirconium	7440-67-7	5.10	U	5.10	0.847	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.187	J	0.408	0.102	2
06142	Silver	7440-22-4	0.204	U	0.204	0.0204	2
06144	Strontium	7440-24-6	18.2		0.408	0.0347	2
06145	Thallium	7440-28-0	0.241		0.204	0.0306	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0203	U	0.0203	0.0105	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045C	n.a.	8.34		0.0100	0.0100	1
	The pH was measured in water at 21.3 C.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	2.0		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

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

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Analysis Report

REVISED

Sample Description: SL-542-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7016767
LLI Group # 1381875
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/09/2013 08:40

Submitted: 04/10/2013 09:20
Reported: 05/06/2013 13:50

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

542-- SDG#: PH027-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	0.0325	JQ	0.984	0.0287	1
11031	12378-PeCDD	40321-76-4	0.187	JBQ	4.92	0.0341	1
11031	123478-HxCDD	39227-28-6	0.365	JB	4.92	0.0412	1
11031	123678-HxCDD	57653-85-7	0.986	JB	4.92	0.0418	1
11031	123789-HxCDD	19408-74-3	0.602	JB	4.92	0.0404	1
11031	1234678-HpCDD	35822-46-9	35.7	B	4.92	0.0482	1
11031	OCDD	3268-87-9	349	B	9.84	0.0381	1
11031	2378-TCDF	51207-31-9	0.984	U	0.984	0.0309	1
11031	12378-PeCDF	57117-41-6	0.161	JBQ	4.92	0.0214	1
11031	23478-PeCDF	57117-31-4	0.180	JBQ	4.92	0.0199	1
11031	123478-HxCDF	70648-26-9	0.270	JB	4.92	0.0287	1
11031	123678-HxCDF	57117-44-9	0.347	JB	4.92	0.0270	1
11031	123789-HxCDF	72918-21-9	0.0737	JQ	4.92	0.0289	1
11031	234678-HxCDF	60851-34-5	0.388	JB	4.92	0.0258	1
11031	1234678-HpCDF	67562-39-4	6.37	B	4.92	0.0229	1
11031	1234789-HpCDF	55673-89-7	0.401	JB	4.92	0.0268	1
11031	OCDF	39001-02-0	13.0	B	9.84	0.0225	1
Toxic Equivalents	**EPA 1613B**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.829				1

Labeled Compounds	**%Rec**	**Windows**
13C12-2378-TCDD	74	25 - 164
13C12-12378-PeCDD	83	25 - 181
13C12-123478-HxCDD	83	32 - 141
13C12-123678-HxCDD	83	28 - 130
13C12-123789-HxCDD	83	28 - 130
13C12-1234678-HpCDD	94	23 - 140
13C12-OCDD	107	17 - 157
13C12-2378-TCDF	74	24 - 169
13C12-12378-PeCDF	83	24 - 185
13C12-23478-PeCDF	83	21 - 178
13C12-123478-HxCDF	87	26 - 152
13C12-123678-HxCDF	89	26 - 123
13C12-234678-HxCDF	86	28 - 136
13C12-123789-HxCDF	86	29 - 147
13C12-1234678-HpCDF	102	28 - 143
13C12-1234789-HpCDF	98	26 - 138
13C12-OCDF	110	17 - 157

Dioxins/Furans Data Qualifiers:

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

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

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Analysis Report

REVISED

Sample Description: SL-542-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7016767
LLI Group # 1381875
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/09/2013 08:40

Submitted: 04/10/2013 09:20
Reported: 05/06/2013 13:50

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

542-- SDG#: PH027-02

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

F *Interference is present*
S *Saturation of detection signal*

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

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Analysis Report

REVISED

Sample Description: SL-542-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7016767
LLI Group # 1381875
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/09/2013 08:40

Submitted: 04/10/2013 09:20
Reported: 05/06/2013 13:50

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

542-- SDG#: PH027-02

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13105SLA026	04/23/2013	05:04	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	13105SLA026	04/15/2013	14:00	David S Schrum	1
10592	19a PCBs and PCTs 8082A	SW-846 8082A	1	131050020A	04/19/2013	23:27	Jessica L Miller	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	131050020A	04/16/2013	05:50	Roman Kuropatkin	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	131030014A	04/16/2013	07:41	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	131030014A	04/14/2013	23:55	Roman Kuropatkin	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13101001	04/12/2013	21:12	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13101001	04/11/2013	12:30	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010C	1	131050637003	04/19/2013	17:16	Katlin N Cataldi	1
06944	Antimony	SW-846 6010C	1	131050637003	04/19/2013	17:16	Katlin N Cataldi	1
06935	Arsenic	SW-846 6010C	1	131050637003	04/19/2013	17:16	Katlin N Cataldi	1
06946	Barium	SW-846 6010C	1	131050637003	04/19/2013	17:16	Katlin N Cataldi	1
06947	Beryllium	SW-846 6010C	2	131050637003	04/19/2013	17:16	Katlin N Cataldi	1
07914	Boron	SW-846 6010C	3	131050637003	04/22/2013	14:28	Eric L Eby	1
06949	Cadmium	SW-846 6010C	1	131050637003	04/19/2013	17:16	Katlin N Cataldi	1
01650	Calcium	SW-846 6010C	1	131050637003	04/19/2013	17:16	Katlin N Cataldi	1
06951	Chromium	SW-846 6010C	1	131050637003	04/19/2013	17:16	Katlin N Cataldi	1
06952	Cobalt	SW-846 6010C	1	131050637003	04/19/2013	17:16	Katlin N Cataldi	1
06953	Copper	SW-846 6010C	1	131050637003	04/19/2013	17:16	Katlin N Cataldi	1
01654	Iron	SW-846 6010C	1	131050637003	04/19/2013	17:16	Katlin N Cataldi	1
06955	Lead	SW-846 6010C	1	131050637003	04/19/2013	17:16	Katlin N Cataldi	1
01656	Lithium	SW-846 6010C	2	131050637003	04/19/2013	17:16	Katlin N Cataldi	1
01657	Magnesium	SW-846 6010C	1	131050637003	04/19/2013	17:16	Katlin N Cataldi	1
06958	Manganese	SW-846 6010C	1	131050637003	04/19/2013	17:16	Katlin N Cataldi	1
06960	Molybdenum	SW-846 6010C	2	131050637003	04/19/2013	17:16	Katlin N Cataldi	1
06961	Nickel	SW-846 6010C	1	131050637003	04/19/2013	17:16	Katlin N Cataldi	1
10145	Phosphorus	SW-846 6010C	1	131050637003	04/19/2013	17:16	Katlin N Cataldi	1
01662	Potassium	SW-846 6010C	1	131050637003	04/19/2013	17:16	Katlin N Cataldi	1
01667	Sodium	SW-846 6010C	1	131050637003	04/19/2013	17:16	Katlin N Cataldi	1
06969	Tin	SW-846 6010C	1	131050637003	04/19/2013	17:16	Katlin N Cataldi	1
06970	Titanium	SW-846 6010C	1	131050637003	04/19/2013	17:16	Katlin N Cataldi	1
06971	Vanadium	SW-846 6010C	1	131050637003	04/19/2013	17:16	Katlin N Cataldi	1
06972	Zinc	SW-846 6010C	1	131050637003	04/19/2013	17:16	Katlin N Cataldi	1
10146	Zirconium	SW-846 6010C	1	131050637003	04/19/2013	17:16	Katlin N Cataldi	1
06141	Selenium	SW-846 6020A	1	131050637003B	04/21/2013	00:05	David K Beck	2
06142	Silver	SW-846 6020A	1	131050637003A	04/21/2013	00:05	David K Beck	2
06144	Strontium	SW-846 6020A	1	131050637003A	04/21/2013	00:05	David K Beck	2
06145	Thallium	SW-846 6020A	1	131050637003A	04/21/2013	00:05	David K Beck	2

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

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Analysis Report

REVISED

Sample Description: SL-542-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7016767
LLI Group # 1381875
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/09/2013 08:40

Submitted: 04/10/2013 09:20
Reported: 05/06/2013 13:50

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

542-- SDG#: PH027-02

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00159	3a Mercury 7471A	SW-846 7471B	1	131060638003	04/18/2013 07:08	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	131050637003	04/17/2013 09:07	Denise K Conners	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	131060638003	04/17/2013 11:40	Denise K Conners	1
00394	15a pH by 9045C	SW-846 9045D modified	1	13101039401A	04/11/2013 19:40	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13106162401A	04/16/2013 21:43	Scott W Freisher	1

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

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Analysis Report

REVISED

Sample Description: SL-540-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7016768
LLI Group # 1381875
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/09/2013 10:10

Submitted: 04/10/2013 09:20
Reported: 05/06/2013 13:50

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

-540- SDG#: PH027-03BKG

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.69	1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.34	1
12969	Anthracene	120-12-7	1.7	U	1.7	0.34	1
12969	Benzo(a)anthracene	56-55-3	1.7	U	1.7	0.69	1
12969	Benzo(a)pyrene	50-32-8	0.74	J	1.7	0.69	1
12969	Benzo(b)fluoranthene	205-99-2	1.4	J	1.7	0.69	1
12969	Benzo(e)pyrene	192-97-2	18	U	18	3.4	1
12969	Benzo(g,h,i)perylene	191-24-2	0.98	J	1.7	0.69	1
12969	Benzo(k)fluoranthene	207-08-9	1.7	U	1.7	0.69	1
12969	Butylbenzylphthalate	85-68-7	6.7	J	19	6.2	1
12969	Di-n-butylphthalate	84-74-2	19	U	19	6.2	1
12969	Chrysene	218-01-9	1.6	J	1.7	0.34	1
12969	Dibenz(a,h)anthracene	53-70-3	1.7	U	1.7	0.69	1
12969	Diethylphthalate	84-66-2	19	U	19	6.2	1
12969	Dimethylphthalate	131-11-3	19	U	19	6.2	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	15	J	19	6.2	1
12969	Fluoranthene	206-44-0	1.4	J	1.7	0.69	1
12969	Fluorene	86-73-7	1.7	U	1.7	0.69	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.7	U	1.7	0.69	1
12969	1-Methylnaphthalene	90-12-0	1.7	U	1.7	0.69	1
12969	2-Methylnaphthalene	91-57-6	1.7	U	1.7	0.69	1
12969	Naphthalene	91-20-3	0.83	J	1.7	0.69	1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.69	1
12969	Di-n-octylphthalate	117-84-0	19	U	19	6.2	1
12969	Phenanthrene	85-01-8	0.77	J	1.7	0.69	1
12969	Pyrene	129-00-0	1.5	J	1.7	0.69	1
HPLC Organics	**SW-846 8315A**		**ug/kg**		**ug/kg**	**ug/kg**	
04173	25a Formaldehyde by EPA 8315A	50-00-0	2,100	U	2,100	1,200	1
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
10592	Aroclor 5432	63496-31-1	34	U	34	10	1
10592	Aroclor 5442	12642-23-8	34	U	34	10	1
10592	Aroclor 5460	11126-42-4	34	U	34	10	1
10592	PCB-1016	12674-11-2	18	U	18	3.4	1
10592	PCB-1221	11104-28-2	18	U	18	5.3	1
10592	PCB-1232	11141-16-5	18	U	18	4.2	1
10592	PCB-1242	53469-21-9	18	U	18	3.4	1
10592	PCB-1248	12672-29-6	18	U	18	3.4	1
10592	PCB-1254	11097-69-1	18	U	18	4.6	1
10592	PCB-1260	11096-82-5	18	U	18	4.0	1
10592	PCB-1262	37324-23-5	18	U	18	3.4	1
10592	PCB-1268	11100-14-4	18	U	18	3.4	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.1	U	5.1	2.0	1
12952	EFH (C15-C20)	n.a.	3.0	J	5.1	2.0	1
12952	EFH (C21-C30)	n.a.	4.9	J	5.1	2.0	1
12952	EFH (C30-C40)	n.a.	17		10	4.1	1

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

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Analysis Report

REVISED

Sample Description: SL-540-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7016768
LLI Group # 1381875
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/09/2013 10:10

Submitted: 04/10/2013 09:20
Reported: 05/06/2013 13:50

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

-540- SDG#: PH027-03BKG

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C8-C11)	n.a.	5.1	U	5.1	2.0	1
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	13,300		41.0	7.89	1
06944	Antimony	7440-36-0	4.10	U	4.10	0.512	1
06935	Arsenic	7440-38-2	4.19		4.10	0.338	1
06946	Barium	7440-39-3	72.7		1.02	0.0338	1
06947	Beryllium	7440-41-7	0.556	J	1.02	0.0686	1
07914	Boron	7440-42-8	10.2	U	10.2	0.850	1
06949	Cadmium	7440-43-9	0.0727	J	1.02	0.0338	1
01650	Calcium	7440-70-2	3,100		20.5	4.12	1
06951	Chromium	7440-47-3	15.2		3.07	0.0901	1
06952	Cobalt	7440-48-4	4.28		1.02	0.0921	1
06953	Copper	7440-50-8	6.71		2.05	0.184	1
01654	Iron	7439-89-6	19,000		41.0	3.89	1
06955	Lead	7439-92-1	5.22		3.07	0.481	1
01656	Lithium	7439-93-2	22.4		4.1	0.56	1
01657	Magnesium	7439-95-4	4,080		10.2	1.77	1
06958	Manganese	7439-96-5	244		1.02	0.0850	1
06960	Molybdenum	7439-98-7	0.672	J	2.05	0.174	1
06961	Nickel	7440-02-0	8.81		2.05	0.113	1
10145	Phosphorus	7723-14-0	399		10.2	0.522	1
01662	Potassium	7440-09-7	3,560		102	13.8	1
01667	Sodium	7440-23-5	69.3	J	102	17.1	1
06969	Tin	7440-31-5	2.76	J	10.2	0.225	1
06970	Titanium	7440-32-6	888		1.02	0.174	1
06971	Vanadium	7440-62-2	29.8		1.02	0.113	1
06972	Zinc	7440-66-6	55.8		4.10	0.205	1
10146	Zirconium	7440-67-7	0.921	J	5.12	0.850	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.102	J	0.410	0.102	2
06142	Silver	7440-22-4	0.0240	J	0.205	0.0205	2
06144	Strontium	7440-24-6	19.4		0.410	0.0348	2
06145	Thallium	7440-28-0	0.223		0.205	0.0307	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0201	U	0.0201	0.0104	1
Wet Chemistry	**SW-846 7199**		**mg/kg**		**mg/kg**	**mg/kg**	
05892	2a Chromium VI by EPA 7199	18540-29-9	0.37	J	0.42	0.15	1
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	3.3		0.10	0.10	1

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

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

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Analysis Report

REVISED

Sample Description: SL-540-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7016768
LLI Group # 1381875
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/09/2013 10:10

Submitted: 04/10/2013 09:20
Reported: 05/06/2013 13:50

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

-540- SDG#: PH027-03BKG

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	1.02	U	1.02	0.0378	1
11031	12378-PeCDD	40321-76-4	0.106	JBQ	5.12	0.0390	1
11031	123478-HxCDD	39227-28-6	0.150	JB	5.12	0.0459	1
11031	123678-HxCDD	57653-85-7	0.361	JBQ	5.12	0.0442	1
11031	123789-HxCDD	19408-74-3	0.339	JB	5.12	0.0439	1
11031	1234678-HpCDD	35822-46-9	8.49	B	5.12	0.0372	1
11031	OCDD	3268-87-9	86.5	B	10.2	0.0236	1
11031	2378-TCDF	51207-31-9	1.02	U	1.02	0.0459	1
11031	12378-PeCDF	57117-41-6	0.154	JB	5.12	0.0244	1
11031	23478-PeCDF	57117-31-4	0.0829	JBQ	5.12	0.0233	1
11031	123478-HxCDF	70648-26-9	0.150	JBQ	5.12	0.0350	1
11031	123678-HxCDF	57117-44-9	0.136	JBQ	5.12	0.0319	1
11031	123789-HxCDF	72918-21-9	0.0774	JQ	5.12	0.0371	1
11031	234678-HxCDF	60851-34-5	0.122	JB	5.12	0.0329	1
11031	1234678-HpCDF	67562-39-4	1.52	JB	5.12	0.0219	1
11031	1234789-HpCDF	55673-89-7	0.159	JBQ	5.12	0.0288	1
11031	OCDF	39001-02-0	3.16	JB	10.2	0.0287	1
Toxic Equivalents	**EPA 1613B**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.193				1

Labeled Compounds	**%Rec**	**Windows**
13C12-2378-TCDD	68	25 - 164
13C12-12378-PeCDD	76	25 - 181
13C12-123478-HxCDD	76	32 - 141
13C12-123678-HxCDD	80	28 - 130
13C12-123789-HxCDD	79	28 - 130
13C12-1234678-HpCDD	87	23 - 140
13C12-OCDD	104	17 - 157
13C12-2378-TCDF	63	24 - 169
13C12-12378-PeCDF	77	24 - 185
13C12-23478-PeCDF	77	21 - 178
13C12-123478-HxCDF	81	26 - 152
13C12-123678-HxCDF	84	26 - 123
13C12-234678-HxCDF	80	28 - 136
13C12-123789-HxCDF	81	29 - 147
13C12-1234678-HpCDF	102	28 - 143
13C12-1234789-HpCDF	89	26 - 138
13C12-OCDF	99	17 - 157

Dioxins/Furans Data Qualifiers:

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

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

REVISED

Sample Description: SL-540-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7016768
LLI Group # 1381875
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/09/2013 10:10

Submitted: 04/10/2013 09:20
Reported: 05/06/2013 13:50

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

-540- SDG#: PH027-03BKG

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

F *Interference is present*
S *Saturation of detection signal*

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

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Analysis Report

REVISED

Sample Description: SL-540-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7016768
LLI Group # 1381875
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/09/2013 10:10

Submitted: 04/10/2013 09:20
Reported: 05/06/2013 13:50

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

-540- SDG#: PH027-03BKG

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13105SLA026	04/23/2013	03:09	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	13105SLA026	04/15/2013	14:00	David S Schrum	1
04173	25a Formaldehyde by EPA 8315A	SW-846 8315A	1	131050002A	04/16/2013	18:25	James H Place	1
10592	19a PCBs and PCTs 8082A	SW-846 8082A	1	131050020A	04/19/2013	23:46	Jessica L Miller	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	131050020A	04/16/2013	05:50	Roman Kuropatkin	1
05876	Formaldehyde Solid Extraction	SW-846 8315A	1	131050002A	04/15/2013	14:20	Wanda F Oswald	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	131030014A	04/16/2013	06:18	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	131030014A	04/14/2013	23:55	Roman Kuropatkin	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13101001	04/12/2013	22:08	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13101001	04/11/2013	12:30	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010C	1	131050637003	04/19/2013	16:49	Katlin N Cataldi	1
06944	Antimony	SW-846 6010C	1	131050637003	04/19/2013	16:49	Katlin N Cataldi	1
06935	Arsenic	SW-846 6010C	1	131050637003	04/19/2013	16:49	Katlin N Cataldi	1
06946	Barium	SW-846 6010C	1	131050637003	04/19/2013	16:49	Katlin N Cataldi	1
06947	Beryllium	SW-846 6010C	2	131050637003	04/19/2013	16:49	Katlin N Cataldi	1
07914	Boron	SW-846 6010C	4	131050637003	04/22/2013	14:03	Eric L Eby	1
06949	Cadmium	SW-846 6010C	1	131050637003	04/19/2013	16:49	Katlin N Cataldi	1
01650	Calcium	SW-846 6010C	1	131050637003	04/19/2013	16:49	Katlin N Cataldi	1
06951	Chromium	SW-846 6010C	1	131050637003	04/19/2013	16:49	Katlin N Cataldi	1
06952	Cobalt	SW-846 6010C	1	131050637003	04/19/2013	16:49	Katlin N Cataldi	1
06953	Copper	SW-846 6010C	1	131050637003	04/19/2013	16:49	Katlin N Cataldi	1
01654	Iron	SW-846 6010C	1	131050637003	04/19/2013	16:49	Katlin N Cataldi	1
06955	Lead	SW-846 6010C	1	131050637003	04/19/2013	16:49	Katlin N Cataldi	1
01656	Lithium	SW-846 6010C	2	131050637003	04/19/2013	16:49	Katlin N Cataldi	1
01657	Magnesium	SW-846 6010C	1	131050637003	04/19/2013	16:49	Katlin N Cataldi	1
06958	Manganese	SW-846 6010C	1	131050637003	04/19/2013	16:49	Katlin N Cataldi	1
06960	Molybdenum	SW-846 6010C	2	131050637003	04/19/2013	16:49	Katlin N Cataldi	1
06961	Nickel	SW-846 6010C	1	131050637003	04/19/2013	16:49	Katlin N Cataldi	1
10145	Phosphorus	SW-846 6010C	1	131050637003	04/19/2013	16:49	Katlin N Cataldi	1
01662	Potassium	SW-846 6010C	1	131050637003	04/19/2013	16:49	Katlin N Cataldi	1
01667	Sodium	SW-846 6010C	1	131050637003	04/19/2013	16:49	Katlin N Cataldi	1
06969	Tin	SW-846 6010C	1	131050637003	04/19/2013	16:49	Katlin N Cataldi	1
06970	Titanium	SW-846 6010C	1	131050637003	04/19/2013	16:49	Katlin N Cataldi	1
06971	Vanadium	SW-846 6010C	1	131050637003	04/19/2013	16:49	Katlin N Cataldi	1
06972	Zinc	SW-846 6010C	1	131050637003	04/19/2013	16:49	Katlin N Cataldi	1
10146	Zirconium	SW-846 6010C	1	131050637003	04/19/2013	16:49	Katlin N Cataldi	1

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

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Analysis Report

REVISED

Sample Description: SL-540-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7016768
LLI Group # 1381875
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/09/2013 10:10

Submitted: 04/10/2013 09:20
Reported: 05/06/2013 13:50

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

-540- SDG#: PH027-03BKG

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06141	Selenium	SW-846 6020A	1	131050637003B	04/20/2013 23:48	David K Beck	2
06142	Silver	SW-846 6020A	1	131050637003A	04/20/2013 23:48	David K Beck	2
06144	Strontium	SW-846 6020A	1	131050637003A	04/20/2013 23:48	David K Beck	2
06145	Thallium	SW-846 6020A	1	131050637003A	04/20/2013 23:48	David K Beck	2
00159	3a Mercury 7471A	SW-846 7471B	1	131060638003	04/18/2013 07:10	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	131050637003	04/17/2013 09:07	Denise K Conners	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	131060638003	04/17/2013 11:40	Denise K Conners	1
05892	2a Chromium VI by EPA 7199	SW-846 7199	1	13108243201A	04/19/2013 16:47	Clinton M Wilson	1
02432	Cr VI by EPA 7199 - Ext.	SW-846 3060A	2	13108243201A	04/18/2013 21:00	Daniel S Smith	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13106162401A	04/16/2013 21:43	Scott W Freisher	1

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

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Analysis Report

REVISED

Sample Description: SL-540-SA7-SB-0.0-0.5MS Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7016769
LLI Group # 1381875
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/09/2013 10:10

Submitted: 04/10/2013 09:20
Reported: 05/06/2013 13:50

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

-540- SDG#: PH027-03MS

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	40		1.7	0.69	1
12969	Acenaphthylene	208-96-8	39		1.7	0.34	1
12969	Anthracene	120-12-7	37		1.7	0.34	1
12969	Benzo(a)anthracene	56-55-3	35		1.7	0.69	1
12969	Benzo(a)pyrene	50-32-8	35		1.7	0.69	1
12969	Benzo(b)fluoranthene	205-99-2	40		1.7	0.69	1
12969	Benzo(e)pyrene	192-97-2	31		18	3.4	1
12969	Benzo(g,h,i)perylene	191-24-2	34		1.7	0.69	1
12969	Benzo(k)fluoranthene	207-08-9	32		1.7	0.69	1
12969	Butylbenzylphthalate	85-68-7	42		19	6.2	1
12969	Di-n-butylphthalate	84-74-2	42		19	6.2	1
12969	Chrysene	218-01-9	37		1.7	0.34	1
12969	Dibenz(a,h)anthracene	53-70-3	37		1.7	0.69	1
12969	Diethylphthalate	84-66-2	47		19	6.2	1
12969	Dimethylphthalate	131-11-3	40		19	6.2	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	37		19	6.2	1
12969	Fluoranthene	206-44-0	34		1.7	0.69	1
12969	Fluorene	86-73-7	38		1.7	0.69	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	37		1.7	0.69	1
12969	1-Methylnaphthalene	90-12-0	36		1.7	0.69	1
12969	2-Methylnaphthalene	91-57-6	37		1.7	0.69	1
12969	Naphthalene	91-20-3	36		1.7	0.69	1
12969	N-Nitrosodimethylamine	62-75-9	27		1.7	0.69	1
12969	Di-n-octylphthalate	117-84-0	34		19	6.2	1
12969	Phenanthrene	85-01-8	37		1.7	0.69	1
12969	Pyrene	129-00-0	38		1.7	0.69	1
HPLC Organics	**SW-846 8315A**		**ug/kg**		**ug/kg**	**ug/kg**	
04173	25a Formaldehyde by EPA 8315A	50-00-0	11,000		2,100	1,200	1
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
10592	Aroclor 5432	63496-31-1	34	U	34	10	1
10592	Aroclor 5442	12642-23-8	34	U	34	10	1
10592	Aroclor 5460	11126-42-4	34	U	34	10	1
10592	PCB-1016	12674-11-2	170		17	3.4	1
10592	PCB-1221	11104-28-2	17	U	17	5.2	1
10592	PCB-1232	11141-16-5	17	U	17	4.2	1
10592	PCB-1242	53469-21-9	17	U	17	3.4	1
10592	PCB-1248	12672-29-6	17	U	17	3.4	1
10592	PCB-1254	11097-69-1	17	U	17	4.5	1
10592	PCB-1260	11096-82-5	180		17	4.0	1
10592	PCB-1262	37324-23-5	17	U	17	3.4	1
10592	PCB-1268	11100-14-4	17	U	17	3.4	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.2	U	5.2	2.1	1
12952	EFH (C15-C20)	n.a.	4.6	J	5.2	2.1	1
12952	EFH (C21-C30)	n.a.	9.3		5.2	2.1	1
12952	EFH (C30-C40)	n.a.	19		10	4.1	1

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

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Analysis Report

REVISED

Sample Description: SL-540-SA7-SB-0.0-0.5MS Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7016769
LLI Group # 1381875
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/09/2013 10:10

Submitted: 04/10/2013 09:20
Reported: 05/06/2013 13:50

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

-540- SDG#: PH027-03MS

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C8-C11)	n.a.	5.2	U	5.2	2.1	1
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	16,900		40.2	7.74	1
06944	Antimony	7440-36-0	24.2		4.02	0.502	1
06935	Arsenic	7440-38-2	18.4		4.02	0.331	1
06946	Barium	7440-39-3	267		1.00	0.0331	1
06947	Beryllium	7440-41-7	5.65		1.00	0.0673	1
07914	Boron	7440-42-8	198		10.0	0.833	1
06949	Cadmium	7440-43-9	4.78		1.00	0.0331	1
01650	Calcium	7440-70-2	3,160		20.1	4.04	1
06951	Chromium	7440-47-3	35.8		3.01	0.0884	1
06952	Cobalt	7440-48-4	50.6		1.00	0.0904	1
06953	Copper	7440-50-8	30.8		2.01	0.181	1
01654	Iron	7439-89-6	18,500		40.2	3.82	1
06955	Lead	7439-92-1	18.8		3.01	0.472	1
01656	Lithium	7439-93-2	123		4.0	0.55	1
01657	Magnesium	7439-95-4	4,420		10.0	1.74	1
06958	Manganese	7439-96-5	310		1.00	0.0833	1
06960	Molybdenum	7439-98-7	189		2.01	0.171	1
06961	Nickel	7440-02-0	55.7		2.01	0.110	1
10145	Phosphorus	7723-14-0	455		10.0	0.512	1
01662	Potassium	7440-09-7	4,370		100	13.6	1
01667	Sodium	7440-23-5	1,050		100	16.8	1
06969	Tin	7440-31-5	353		10.0	0.221	1
06970	Titanium	7440-32-6	1,210		1.00	0.171	1
06971	Vanadium	7440-62-2	83.1		1.00	0.110	1
06972	Zinc	7440-66-6	97.7		4.02	0.201	1
10146	Zirconium	7440-67-7	98.9		5.02	0.833	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	2.01		0.402	0.100	2
06142	Silver	7440-22-4	9.72		0.201	0.0201	2
06144	Strontium	7440-24-6	26.8		0.402	0.0341	2
06145	Thallium	7440-28-0	0.644		0.201	0.0301	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.187		0.0197	0.0102	1
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11625	14a Moisture Content by 160.3	n.a.	3.3		0.10	0.10	1

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

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Analysis Report

REVISED

Sample Description: SL-540-SA7-SB-0.0-0.5MS Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7016769
LLI Group # 1381875
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/09/2013 10:10

Submitted: 04/10/2013 09:20
Reported: 05/06/2013 13:50

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

-540- SDG#: PH027-03MS

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	18.9		1.02	0.0391	1
11031	12378-PeCDD	40321-76-4	99.4	B	5.10	0.0371	1
11031	123478-HxCDD	39227-28-6	103	B	5.10	0.0351	1
11031	123678-HxCDD	57653-85-7	104	B	5.10	0.0378	1
11031	123789-HxCDD	19408-74-3	102	B	5.10	0.0343	1
11031	1234678-HpCDD	35822-46-9	105	B	5.10	0.0368	1
11031	OCDD	3268-87-9	248	B	10.2	0.0287	1
11031	2378-TCDF	51207-31-9	20.1		1.02	0.0390	1
11031	12378-PeCDF	57117-41-6	103	B	5.10	0.0311	1
11031	23478-PeCDF	57117-31-4	106	B	5.10	0.0300	1
11031	123478-HxCDF	70648-26-9	107	B	5.10	0.0502	1
11031	123678-HxCDF	57117-44-9	105	B	5.10	0.0475	1
11031	123789-HxCDF	72918-21-9	104		5.10	0.0487	1
11031	234678-HxCDF	60851-34-5	105	B	5.10	0.0467	1
11031	1234678-HpCDF	67562-39-4	104	B	5.10	0.0344	1
11031	1234789-HpCDF	55673-89-7	103	B	5.10	0.0410	1
11031	OCDF	39001-02-0	208	B	10.2	0.0287	1

Labeled Compounds	**%Rec**	**Windows**
13C12-2378-TCDD	70	25 - 164
13C12-12378-PeCDD	77	25 - 181
13C12-123478-HxCDD	83	32 - 141
13C12-123678-HxCDD	81	28 - 130
13C12-123789-HxCDD	85	28 - 130
13C12-1234678-HpCDD	86	23 - 140
13C12-OCDD	98	17 - 157
13C12-2378-TCDF	66	24 - 169
13C12-12378-PeCDF	78	24 - 185
13C12-23478-PeCDF	78	21 - 178
13C12-123478-HxCDF	83	26 - 152
13C12-123678-HxCDF	85	26 - 123
13C12-234678-HxCDF	84	28 - 136
13C12-123789-HxCDF	87	29 - 147
13C12-1234678-HpCDF	96	28 - 143
13C12-1234789-HpCDF	90	26 - 138
13C12-OCDF	101	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present
S Saturation of detection signal

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

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Analysis Report

REVISED

Sample Description: SL-540-SA7-SB-0.0-0.5MS Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7016769
LLI Group # 1381875
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/09/2013 10:10

Submitted: 04/10/2013 09:20
Reported: 05/06/2013 13:50

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

-540- SDG#: PH027-03MS

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13105SLA026	04/23/2013	03:37	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	13105SLA026	04/15/2013	14:00	David S Schrum	1
04173	25a Formaldehyde by EPA 8315A	SW-846 8315A	1	131050002A	04/16/2013	18:34	James H Place	1
10592	19a PCBs and PCTs 8082A	SW-846 8082A	1	131050020A	04/20/2013	00:04	Jessica L Miller	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	131050020A	04/16/2013	05:50	Roman Kuropatkin	1
05876	Formaldehyde Solid Extraction	SW-846 8315A	1	131050002A	04/15/2013	14:20	Wanda F Oswald	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	131030014A	04/16/2013	06:39	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	131030014A	04/14/2013	23:55	Roman Kuropatkin	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13101001	04/12/2013	23:05	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13101001	04/11/2013	12:30	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010C	1	131050637003	04/19/2013	17:01	Katlin N Cataldi	1
06944	Antimony	SW-846 6010C	1	131050637003	04/19/2013	17:01	Katlin N Cataldi	1
06935	Arsenic	SW-846 6010C	1	131050637003	04/19/2013	17:01	Katlin N Cataldi	1
06946	Barium	SW-846 6010C	1	131050637003	04/19/2013	17:01	Katlin N Cataldi	1
06947	Beryllium	SW-846 6010C	2	131050637003	04/19/2013	17:01	Katlin N Cataldi	1
07914	Boron	SW-846 6010C	4	131050637003	04/22/2013	14:15	Eric L Eby	1
06949	Cadmium	SW-846 6010C	1	131050637003	04/19/2013	17:01	Katlin N Cataldi	1
01650	Calcium	SW-846 6010C	1	131050637003	04/19/2013	17:01	Katlin N Cataldi	1
06951	Chromium	SW-846 6010C	1	131050637003	04/19/2013	17:01	Katlin N Cataldi	1
06952	Cobalt	SW-846 6010C	1	131050637003	04/19/2013	17:01	Katlin N Cataldi	1
06953	Copper	SW-846 6010C	1	131050637003	04/19/2013	17:01	Katlin N Cataldi	1
01654	Iron	SW-846 6010C	1	131050637003	04/19/2013	17:01	Katlin N Cataldi	1
06955	Lead	SW-846 6010C	1	131050637003	04/19/2013	17:01	Katlin N Cataldi	1
01656	Lithium	SW-846 6010C	2	131050637003	04/19/2013	17:01	Katlin N Cataldi	1
01657	Magnesium	SW-846 6010C	1	131050637003	04/19/2013	17:01	Katlin N Cataldi	1
06958	Manganese	SW-846 6010C	1	131050637003	04/19/2013	17:01	Katlin N Cataldi	1
06960	Molybdenum	SW-846 6010C	2	131050637003	04/19/2013	17:01	Katlin N Cataldi	1
06961	Nickel	SW-846 6010C	1	131050637003	04/19/2013	17:01	Katlin N Cataldi	1
10145	Phosphorus	SW-846 6010C	1	131050637003	04/19/2013	17:01	Katlin N Cataldi	1
01662	Potassium	SW-846 6010C	1	131050637003	04/19/2013	17:01	Katlin N Cataldi	1
01667	Sodium	SW-846 6010C	1	131050637003	04/19/2013	17:01	Katlin N Cataldi	1
06969	Tin	SW-846 6010C	1	131050637003	04/19/2013	17:01	Katlin N Cataldi	1
06970	Titanium	SW-846 6010C	1	131050637003	04/19/2013	17:01	Katlin N Cataldi	1
06971	Vanadium	SW-846 6010C	1	131050637003	04/19/2013	17:01	Katlin N Cataldi	1
06972	Zinc	SW-846 6010C	1	131050637003	04/19/2013	17:01	Katlin N Cataldi	1
10146	Zirconium	SW-846 6010C	1	131050637003	04/19/2013	17:01	Katlin N Cataldi	1

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

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Analysis Report

REVISED

Sample Description: SL-540-SA7-SB-0.0-0.5MS Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7016769
LLI Group # 1381875
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/09/2013 10:10

Submitted: 04/10/2013 09:20
Reported: 05/06/2013 13:50

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

-540- SDG#: PH027-03MS

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06141	Selenium	SW-846 6020A	1	131050637003B	04/20/2013 23:55	David K Beck	2
06142	Silver	SW-846 6020A	1	131050637003A	04/20/2013 23:55	David K Beck	2
06144	Strontium	SW-846 6020A	1	131050637003A	04/20/2013 23:55	David K Beck	2
06145	Thallium	SW-846 6020A	1	131050637003A	04/20/2013 23:55	David K Beck	2
00159	3a Mercury 7471A	SW-846 7471B	1	131060638003	04/18/2013 07:16	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	131050637003	04/17/2013 09:07	Denise K Conners	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	131060638003	04/17/2013 11:40	Denise K Conners	1
11625	14a Moisture Content by 160.3	EPA 160.3 modified	1	13106162401A	04/16/2013 21:43	Scott W Freisher	1

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

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Analysis Report

REVISED

Sample Description: SL-540-SA7-SB-0.0-0.5MSD Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7016770
LLI Group # 1381875
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/09/2013 10:10

Submitted: 04/10/2013 09:20
Reported: 05/06/2013 13:50

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

-540- SDG#: PH027-03MSD

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	38		1.7	0.69	1
12969	Acenaphthylene	208-96-8	37		1.7	0.34	1
12969	Anthracene	120-12-7	36		1.7	0.34	1
12969	Benzo(a)anthracene	56-55-3	36		1.7	0.69	1
12969	Benzo(a)pyrene	50-32-8	35		1.7	0.69	1
12969	Benzo(b)fluoranthene	205-99-2	38		1.7	0.69	1
12969	Benzo(e)pyrene	192-97-2	30		18	3.4	1
12969	Benzo(g,h,i)perylene	191-24-2	33		1.7	0.69	1
12969	Benzo(k)fluoranthene	207-08-9	31		1.7	0.69	1
12969	Butylbenzylphthalate	85-68-7	41		19	6.2	1
12969	Di-n-butylphthalate	84-74-2	38		19	6.2	1
12969	Chrysene	218-01-9	37		1.7	0.34	1
12969	Dibenz(a,h)anthracene	53-70-3	35		1.7	0.69	1
12969	Diethylphthalate	84-66-2	46		19	6.2	1
12969	Dimethylphthalate	131-11-3	38		19	6.2	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	38		19	6.2	1
12969	Fluoranthene	206-44-0	33		1.7	0.69	1
12969	Fluorene	86-73-7	38		1.7	0.69	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	35		1.7	0.69	1
12969	1-Methylnaphthalene	90-12-0	35		1.7	0.69	1
12969	2-Methylnaphthalene	91-57-6	37		1.7	0.69	1
12969	Naphthalene	91-20-3	35		1.7	0.69	1
12969	N-Nitrosodimethylamine	62-75-9	26		1.7	0.69	1
12969	Di-n-octylphthalate	117-84-0	33		19	6.2	1
12969	Phenanthrene	85-01-8	37		1.7	0.69	1
12969	Pyrene	129-00-0	39		1.7	0.69	1
HPLC Organics	**SW-846 8315A**		**ug/kg**		**ug/kg**	**ug/kg**	
04173	25a Formaldehyde by EPA 8315A	50-00-0	11,000		2,100	1,200	1
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
10592	Aroclor 5432	63496-31-1	34	U	34	10	1
10592	Aroclor 5442	12642-23-8	34	U	34	10	1
10592	Aroclor 5460	11126-42-4	34	U	34	10	1
10592	PCB-1016	12674-11-2	120		17	3.4	1
10592	PCB-1221	11104-28-2	17	U	17	5.2	1
10592	PCB-1232	11141-16-5	17	U	17	4.2	1
10592	PCB-1242	53469-21-9	17	U	17	3.4	1
10592	PCB-1248	12672-29-6	17	U	17	3.4	1
10592	PCB-1254	11097-69-1	17	U	17	4.5	1
10592	PCB-1260	11096-82-5	120		17	4.0	1
10592	PCB-1262	37324-23-5	17	U	17	3.4	1
10592	PCB-1268	11100-14-4	17	U	17	3.4	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.1	U	5.1	2.0	1
12952	EFH (C15-C20)	n.a.	6.0		5.1	2.0	1
12952	EFH (C21-C30)	n.a.	8.8		5.1	2.0	1
12952	EFH (C30-C40)	n.a.	24		10	4.1	1

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

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Analysis Report

REVISED

Sample Description: SL-540-SA7-SB-0.0-0.5MSD Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7016770
LLI Group # 1381875
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/09/2013 10:10

Submitted: 04/10/2013 09:20
Reported: 05/06/2013 13:50

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

-540- SDG#: PH027-03MSD

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C8-C11)	n.a.	5.1	U	5.1	2.0	1
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	16,700		41.0	7.89	1
06944	Antimony	7440-36-0	24.2		4.10	0.512	1
06935	Arsenic	7440-38-2	19.0		4.10	0.338	1
06946	Barium	7440-39-3	275		1.02	0.0338	1
06947	Beryllium	7440-41-7	5.72		1.02	0.0686	1
07914	Boron	7440-42-8	216		10.2	0.850	1
06949	Cadmium	7440-43-9	5.13		1.02	0.0338	1
01650	Calcium	7440-70-2	4,590		20.5	4.12	1
06951	Chromium	7440-47-3	36.5		3.07	0.0901	1
06952	Cobalt	7440-48-4	52.4		1.02	0.0921	1
06953	Copper	7440-50-8	33.2		2.05	0.184	1
01654	Iron	7439-89-6	17,900		41.0	3.89	1
06955	Lead	7439-92-1	19.5		3.07	0.481	1
01656	Lithium	7439-93-2	125		4.1	0.56	1
01657	Magnesium	7439-95-4	4,240		10.2	1.77	1
06958	Manganese	7439-96-5	277		1.02	0.0850	1
06960	Molybdenum	7439-98-7	196		2.05	0.174	1
06961	Nickel	7440-02-0	58.3		2.05	0.113	1
10145	Phosphorus	7723-14-0	529		10.2	0.522	1
01662	Potassium	7440-09-7	4,230		102	13.8	1
01667	Sodium	7440-23-5	1,070		102	17.1	1
06969	Tin	7440-31-5	366		10.2	0.225	1
06970	Titanium	7440-32-6	1,100		1.02	0.174	1
06971	Vanadium	7440-62-2	82.2		1.02	0.113	1
06972	Zinc	7440-66-6	107		4.10	0.205	1
10146	Zirconium	7440-67-7	100		5.12	0.850	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	1.92		0.410	0.102	2
06142	Silver	7440-22-4	10.4		0.205	0.0205	2
06144	Strontium	7440-24-6	31.9		0.410	0.0348	2
06145	Thallium	7440-28-0	0.685		0.205	0.0307	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.188		0.0197	0.0102	1
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11625	14a Moisture Content by 160.3	n.a.	3.3		0.10	0.10	1

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

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Analysis Report

REVISED

Sample Description: SL-540-SA7-SB-0.0-0.5MSD Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7016770
LLI Group # 1381875
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/09/2013 10:10

Submitted: 04/10/2013 09:20
Reported: 05/06/2013 13:50

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

-540- SDG#: PH027-03MSD

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	18.1		0.994	0.0439	1
11031	12378-PeCDD	40321-76-4	96.4	B	4.97	0.0456	1
11031	123478-HxCDD	39227-28-6	103	B	4.97	0.0484	1
11031	123678-HxCDD	57653-85-7	101	B	4.97	0.0497	1
11031	123789-HxCDD	19408-74-3	99.9	B	4.97	0.0465	1
11031	1234678-HpCDD	35822-46-9	107	B	4.97	0.0408	1
11031	OCDD	3268-87-9	273	B	9.94	0.0296	1
11031	2378-TCDF	51207-31-9	19.3		0.994	0.0421	1
11031	12378-PeCDF	57117-41-6	97.5	B	4.97	0.0318	1
11031	23478-PeCDF	57117-31-4	103	B	4.97	0.0307	1
11031	123478-HxCDF	70648-26-9	102	B	4.97	0.0574	1
11031	123678-HxCDF	57117-44-9	101	B	4.97	0.0520	1
11031	123789-HxCDF	72918-21-9	104		4.97	0.0611	1
11031	234678-HxCDF	60851-34-5	100	B	4.97	0.0505	1
11031	1234678-HpCDF	67562-39-4	102	B	4.97	0.0380	1
11031	1234789-HpCDF	55673-89-7	102	B	4.97	0.0459	1
11031	OCDF	39001-02-0	204	B	9.94	0.0360	1

Labeled Compounds	**%Rec**	**Windows**
13C12-2378-TCDD	71	25 - 164
13C12-12378-PeCDD	80	25 - 181
13C12-123478-HxCDD	79	32 - 141
13C12-123678-HxCDD	80	28 - 130
13C12-123789-HxCDD	82	28 - 130
13C12-1234678-HpCDD	87	23 - 140
13C12-OCDD	100	17 - 157
13C12-2378-TCDF	68	24 - 169
13C12-12378-PeCDF	80	24 - 185
13C12-23478-PeCDF	79	21 - 178
13C12-123478-HxCDF	84	26 - 152
13C12-123678-HxCDF	85	26 - 123
13C12-234678-HxCDF	84	28 - 136
13C12-123789-HxCDF	80	29 - 147
13C12-1234678-HpCDF	95	28 - 143
13C12-1234789-HpCDF	87	26 - 138
13C12-OCDF	103	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present
S Saturation of detection signal

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

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Analysis Report

REVISED

Sample Description: SL-540-SA7-SB-0.0-0.5MSD Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7016770
LLI Group # 1381875
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/09/2013 10:10

Submitted: 04/10/2013 09:20
Reported: 05/06/2013 13:50

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

-540- SDG#: PH027-03MSD

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13105SLA026	04/23/2013	04:07	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	13105SLA026	04/15/2013	14:00	David S Schrum	1
04173	25a Formaldehyde by EPA 8315A	SW-846 8315A	1	131050002A	04/16/2013	18:42	James H Place	1
10592	19a PCBs and PCTs 8082A	SW-846 8082A	1	131050020A	04/20/2013	00:23	Jessica L Miller	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	131050020A	04/16/2013	05:50	Roman Kuropatkin	1
05876	Formaldehyde Solid Extraction	SW-846 8315A	1	131050002A	04/15/2013	14:20	Wanda F Oswald	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	131030014A	04/16/2013	06:59	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	131030014A	04/14/2013	23:55	Roman Kuropatkin	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13101001	04/13/2013	00:02	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13101001	04/11/2013	12:30	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010C	1	131050637003	04/19/2013	17:05	Katlin N Cataldi	1
06944	Antimony	SW-846 6010C	1	131050637003	04/19/2013	17:05	Katlin N Cataldi	1
06935	Arsenic	SW-846 6010C	1	131050637003	04/19/2013	17:05	Katlin N Cataldi	1
06946	Barium	SW-846 6010C	1	131050637003	04/19/2013	17:05	Katlin N Cataldi	1
06947	Beryllium	SW-846 6010C	2	131050637003	04/19/2013	17:05	Katlin N Cataldi	1
07914	Boron	SW-846 6010C	4	131050637003	04/22/2013	14:20	Eric L Eby	1
06949	Cadmium	SW-846 6010C	1	131050637003	04/19/2013	17:05	Katlin N Cataldi	1
01650	Calcium	SW-846 6010C	1	131050637003	04/19/2013	17:05	Katlin N Cataldi	1
06951	Chromium	SW-846 6010C	1	131050637003	04/19/2013	17:05	Katlin N Cataldi	1
06952	Cobalt	SW-846 6010C	1	131050637003	04/19/2013	17:05	Katlin N Cataldi	1
06953	Copper	SW-846 6010C	1	131050637003	04/19/2013	17:05	Katlin N Cataldi	1
01654	Iron	SW-846 6010C	1	131050637003	04/19/2013	17:05	Katlin N Cataldi	1
06955	Lead	SW-846 6010C	1	131050637003	04/19/2013	17:05	Katlin N Cataldi	1
01656	Lithium	SW-846 6010C	2	131050637003	04/19/2013	17:05	Katlin N Cataldi	1
01657	Magnesium	SW-846 6010C	1	131050637003	04/19/2013	17:05	Katlin N Cataldi	1
06958	Manganese	SW-846 6010C	1	131050637003	04/19/2013	17:05	Katlin N Cataldi	1
06960	Molybdenum	SW-846 6010C	2	131050637003	04/19/2013	17:05	Katlin N Cataldi	1
06961	Nickel	SW-846 6010C	1	131050637003	04/19/2013	17:05	Katlin N Cataldi	1
10145	Phosphorus	SW-846 6010C	1	131050637003	04/19/2013	17:05	Katlin N Cataldi	1
01662	Potassium	SW-846 6010C	1	131050637003	04/19/2013	17:05	Katlin N Cataldi	1
01667	Sodium	SW-846 6010C	1	131050637003	04/19/2013	17:05	Katlin N Cataldi	1
06969	Tin	SW-846 6010C	1	131050637003	04/19/2013	17:05	Katlin N Cataldi	1
06970	Titanium	SW-846 6010C	1	131050637003	04/19/2013	17:05	Katlin N Cataldi	1
06971	Vanadium	SW-846 6010C	1	131050637003	04/19/2013	17:05	Katlin N Cataldi	1
06972	Zinc	SW-846 6010C	1	131050637003	04/19/2013	17:05	Katlin N Cataldi	1
10146	Zirconium	SW-846 6010C	1	131050637003	04/19/2013	17:05	Katlin N Cataldi	1

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

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Analysis Report

REVISED

Sample Description: SL-540-SA7-SB-0.0-0.5MSD Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7016770
LLI Group # 1381875
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/09/2013 10:10

Submitted: 04/10/2013 09:20
Reported: 05/06/2013 13:50

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

-540- SDG#: PH027-03MSD

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06141	Selenium	SW-846 6020A	1	131050637003B	04/20/2013 23:57	David K Beck	2
06142	Silver	SW-846 6020A	1	131050637003A	04/20/2013 23:57	David K Beck	2
06144	Strontium	SW-846 6020A	1	131050637003A	04/20/2013 23:57	David K Beck	2
06145	Thallium	SW-846 6020A	1	131050637003A	04/20/2013 23:57	David K Beck	2
00159	3a Mercury 7471A	SW-846 7471B	1	131060638003	04/18/2013 07:18	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	131050637003	04/17/2013 09:07	Denise K Conners	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	131060638003	04/17/2013 11:40	Denise K Conners	1
11625	14a Moisture Content by 160.3	EPA 160.3 modified	1	13106162401A	04/16/2013 21:43	Scott W Freisher	1

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

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Analysis Report

REVISED

Sample Description: SL-540-SA7-SB-0.0-0.5DUP Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7016771
LLI Group # 1381875
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/09/2013 10:10

Submitted: 04/10/2013 09:20
Reported: 05/06/2013 13:50

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

-540- SDG#: PH027-03DUP

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	13,900		40.6	7.82	1
06944	Antimony	7440-36-0	4.06	U	4.06	0.507	1
06935	Arsenic	7440-38-2	4.64		4.06	0.335	1
06946	Barium	7440-39-3	72.3		1.01	0.0335	1
06947	Beryllium	7440-41-7	0.569	J	1.01	0.0679	1
07914	Boron	7440-42-8	10.1	U	10.1	0.841	1
06949	Cadmium	7440-43-9	0.120	J	1.01	0.0335	1
01650	Calcium	7440-70-2	3,010		20.3	4.08	1
06951	Chromium	7440-47-3	14.8		3.04	0.0892	1
06952	Cobalt	7440-48-4	3.84		1.01	0.0912	1
06953	Copper	7440-50-8	6.33		2.03	0.182	1
01654	Iron	7439-89-6	17,800		40.6	3.85	1
06955	Lead	7439-92-1	5.30		3.04	0.477	1
01656	Lithium	7439-93-2	21.1		4.1	0.56	1
01657	Magnesium	7439-95-4	3,830		10.1	1.75	1
06958	Manganese	7439-96-5	228		1.01	0.0841	1
06960	Molybdenum	7439-98-7	0.242	J	2.03	0.172	1
06961	Nickel	7440-02-0	8.52		2.03	0.112	1
10145	Phosphorus	7723-14-0	378		10.1	0.517	1
01662	Potassium	7440-09-7	3,400		101	13.7	1
01667	Sodium	7440-23-5	68.2	J	101	16.9	1
06969	Tin	7440-31-5	2.66	J	10.1	0.223	1
06970	Titanium	7440-32-6	910		1.01	0.172	1
06971	Vanadium	7440-62-2	29.6		1.01	0.112	1
06972	Zinc	7440-66-6	52.1		4.06	0.203	1
10146	Zirconium	7440-67-7	1.77	J	5.07	0.841	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.171	J	0.406	0.101	2
06142	Silver	7440-22-4	0.0218	J	0.203	0.0203	2
06144	Strontium	7440-24-6	18.3		0.406	0.0345	2
06145	Thallium	7440-28-0	0.231		0.203	0.0304	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0196	U	0.0196	0.0101	1
Wet Chemistry	**SW-846 7199**		**mg/kg**		**mg/kg**	**mg/kg**	
05892	2a Chromium VI by EPA 7199	18540-29-9	0.45		0.43	0.15	1
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11625	14a Moisture Content by 160.3	n.a.	3.3		0.10	0.10	1
11626	14a Moisture Content by 160.3	n.a.	3.0		0.10	0.10	1

The duplicate moisture value is provided to assess the precision of the moisture test. For comparability purposes, the initial moisture determination is the value used to perform dry weight calculations.

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

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Analysis Report

REVISED

Sample Description: SL-540-SA7-SB-0.0-0.5DUP Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7016771
LLI Group # 1381875
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/09/2013 10:10

Submitted: 04/10/2013 09:20
Reported: 05/06/2013 13:50

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

-540- SDG#: PH027-03DUP

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01643	Aluminum	SW-846 6010C	1	131050637003	04/19/2013 16:57	Katlin N Cataldi	1
06944	Antimony	SW-846 6010C	1	131050637003	04/19/2013 16:57	Katlin N Cataldi	1
06935	Arsenic	SW-846 6010C	1	131050637003	04/19/2013 16:57	Katlin N Cataldi	1
06946	Barium	SW-846 6010C	1	131050637003	04/19/2013 16:57	Katlin N Cataldi	1
06947	Beryllium	SW-846 6010C	2	131050637003	04/19/2013 16:57	Katlin N Cataldi	1
07914	Boron	SW-846 6010C	4	131050637003	04/22/2013 14:11	Eric L Eby	1
06949	Cadmium	SW-846 6010C	1	131050637003	04/19/2013 16:57	Katlin N Cataldi	1
01650	Calcium	SW-846 6010C	1	131050637003	04/19/2013 16:57	Katlin N Cataldi	1
06951	Chromium	SW-846 6010C	1	131050637003	04/19/2013 16:57	Katlin N Cataldi	1
06952	Cobalt	SW-846 6010C	1	131050637003	04/19/2013 16:57	Katlin N Cataldi	1
06953	Copper	SW-846 6010C	1	131050637003	04/19/2013 16:57	Katlin N Cataldi	1
01654	Iron	SW-846 6010C	1	131050637003	04/19/2013 16:57	Katlin N Cataldi	1
06955	Lead	SW-846 6010C	1	131050637003	04/19/2013 16:57	Katlin N Cataldi	1
01656	Lithium	SW-846 6010C	2	131050637003	04/19/2013 16:57	Katlin N Cataldi	1
01657	Magnesium	SW-846 6010C	1	131050637003	04/19/2013 16:57	Katlin N Cataldi	1
06958	Manganese	SW-846 6010C	1	131050637003	04/19/2013 16:57	Katlin N Cataldi	1
06960	Molybdenum	SW-846 6010C	2	131050637003	04/19/2013 16:57	Katlin N Cataldi	1
06961	Nickel	SW-846 6010C	1	131050637003	04/19/2013 16:57	Katlin N Cataldi	1
10145	Phosphorus	SW-846 6010C	1	131050637003	04/19/2013 16:57	Katlin N Cataldi	1
01662	Potassium	SW-846 6010C	1	131050637003	04/19/2013 16:57	Katlin N Cataldi	1
01667	Sodium	SW-846 6010C	1	131050637003	04/19/2013 16:57	Katlin N Cataldi	1
06969	Tin	SW-846 6010C	1	131050637003	04/19/2013 16:57	Katlin N Cataldi	1
06970	Titanium	SW-846 6010C	1	131050637003	04/19/2013 16:57	Katlin N Cataldi	1
06971	Vanadium	SW-846 6010C	1	131050637003	04/19/2013 16:57	Katlin N Cataldi	1
06972	Zinc	SW-846 6010C	1	131050637003	04/19/2013 16:57	Katlin N Cataldi	1
10146	Zirconium	SW-846 6010C	1	131050637003	04/19/2013 16:57	Katlin N Cataldi	1
06141	Selenium	SW-846 6020A	1	131050637003B	04/20/2013 23:53	David K Beck	2
06142	Silver	SW-846 6020A	1	131050637003A	04/20/2013 23:53	David K Beck	2
06144	Strontium	SW-846 6020A	1	131050637003A	04/20/2013 23:53	David K Beck	2
06145	Thallium	SW-846 6020A	1	131050637003A	04/20/2013 23:53	David K Beck	2
00159	3a Mercury 7471A	SW-846 7471B	1	131060638003	04/18/2013 07:14	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	131050637003	04/17/2013 09:07	Denise K Conners	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	131060638003	04/17/2013 11:40	Denise K Conners	1
05892	2a Chromium VI by EPA 7199	SW-846 7199	2	13108243201A	04/19/2013 17:48	Clinton M Wilson	1
02432	Cr VI by EPA 7199 - Ext.	SW-846 3060A	2	13108243201A	04/18/2013 21:00	Daniel S Smith	1
11625	14a Moisture Content by 160.3	EPA 160.3 modified	1	13106162401A	04/16/2013 21:43	Scott W Freisher	1
11626	14a Moisture Content by 160.3	EPA 160.3 modified	1	13106162401A	04/16/2013 21:43	Scott W Freisher	1

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

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Analysis Report

REVISED

Sample Description: SL-840-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7016772
LLI Group # 1381875
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/09/2013 10:15

Submitted: 04/10/2013 09:20
Reported: 05/06/2013 13:50

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

-840- SDG#: PH027-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.69	1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.34	1
12969	Anthracene	120-12-7	1.7	U	1.7	0.34	1
12969	Benzo(a)anthracene	56-55-3	0.80	J	1.7	0.69	1
12969	Benzo(a)pyrene	50-32-8	0.89	J	1.7	0.69	1
12969	Benzo(b)fluoranthene	205-99-2	1.6	J	1.7	0.69	1
12969	Benzo(e)pyrene	192-97-2	17	U	17	3.4	1
12969	Benzo(g,h,i)perylene	191-24-2	0.77	J	1.7	0.69	1
12969	Benzo(k)fluoranthene	207-08-9	1.7	U	1.7	0.69	1
12969	Butylbenzylphthalate	85-68-7	8.7	J	19	6.2	1
12969	Di-n-butylphthalate	84-74-2	19	U	19	6.2	1
12969	Chrysene	218-01-9	1.5	J	1.7	0.34	1
12969	Dibenz(a,h)anthracene	53-70-3	1.7	U	1.7	0.69	1
12969	Diethylphthalate	84-66-2	19	U	19	6.2	1
12969	Dimethylphthalate	131-11-3	19	U	19	6.2	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	13	J	19	6.2	1
12969	Fluoranthene	206-44-0	1.7		1.7	0.69	1
12969	Fluorene	86-73-7	1.7	U	1.7	0.69	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.7	U	1.7	0.69	1
12969	1-Methylnaphthalene	90-12-0	1.7	U	1.7	0.69	1
12969	2-Methylnaphthalene	91-57-6	1.7	U	1.7	0.69	1
12969	Naphthalene	91-20-3	1.7	U	1.7	0.69	1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.69	1
12969	Di-n-octylphthalate	117-84-0	19	U	19	6.2	1
12969	Phenanthrene	85-01-8	1.1	J	1.7	0.69	1
12969	Pyrene	129-00-0	2.1		1.7	0.69	1
HPLC Organics	**SW-846 8315A**		**ug/kg**		**ug/kg**	**ug/kg**	
04173	25a Formaldehyde by EPA 8315A	50-00-0	2,100	U	2,100	1,200	1
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
10592	Aroclor 5432	63496-31-1	34	U	34	10	1
10592	Aroclor 5442	12642-23-8	34	U	34	10	1
10592	Aroclor 5460	11126-42-4	34	U	34	10	1
10592	PCB-1016	12674-11-2	17	U	17	3.4	1
10592	PCB-1221	11104-28-2	17	U	17	5.2	1
10592	PCB-1232	11141-16-5	17	U	17	4.2	1
10592	PCB-1242	53469-21-9	17	U	17	3.4	1
10592	PCB-1248	12672-29-6	17	U	17	3.4	1
10592	PCB-1254	11097-69-1	17	U	17	4.5	1
10592	PCB-1260	11096-82-5	17	U	17	4.0	1
10592	PCB-1262	37324-23-5	17	U	17	3.4	1
10592	PCB-1268	11100-14-4	17	U	17	3.4	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.1	U	5.1	2.0	1
12952	EFH (C15-C20)	n.a.	4.3	J	5.1	2.0	1
12952	EFH (C21-C30)	n.a.	7.0		5.1	2.0	1
12952	EFH (C30-C40)	n.a.	46		10	4.1	1

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

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Analysis Report

REVISED

Sample Description: SL-840-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7016772
LLI Group # 1381875
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/09/2013 10:15

Submitted: 04/10/2013 09:20
Reported: 05/06/2013 13:50

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

-840- SDG#: PH027-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C8-C11)	n.a.	5.1	U	5.1	2.0	1
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	14,800		39.9	7.69	1
06944	Antimony	7440-36-0	3.99	U	3.99	0.499	1
06935	Arsenic	7440-38-2	4.74		3.99	0.329	1
06946	Barium	7440-39-3	73.5		0.998	0.0329	1
06947	Beryllium	7440-41-7	0.613	J	0.998	0.0669	1
07914	Boron	7440-42-8	9.98	U	9.98	0.828	1
06949	Cadmium	7440-43-9	0.0728	J	0.998	0.0329	1
01650	Calcium	7440-70-2	2,670		20.0	4.01	1
06951	Chromium	7440-47-3	15.4		2.99	0.0878	1
06952	Cobalt	7440-48-4	4.00		0.998	0.0898	1
06953	Copper	7440-50-8	6.02		2.00	0.180	1
01654	Iron	7439-89-6	19,100		39.9	3.79	1
06955	Lead	7439-92-1	4.92		2.99	0.469	1
01656	Lithium	7439-93-2	23.6		4.0	0.55	1
01657	Magnesium	7439-95-4	4,100		9.98	1.73	1
06958	Manganese	7439-96-5	245		0.998	0.0828	1
06960	Molybdenum	7439-98-7	2.00	U	2.00	0.170	1
06961	Nickel	7440-02-0	8.86		2.00	0.110	1
10145	Phosphorus	7723-14-0	426		9.98	0.509	1
01662	Potassium	7440-09-7	3,400		99.8	13.5	1
01667	Sodium	7440-23-5	69.5	J	99.8	16.7	1
06969	Tin	7440-31-5	2.64	J	9.98	0.220	1
06970	Titanium	7440-32-6	983		0.998	0.170	1
06971	Vanadium	7440-62-2	32.0		0.998	0.110	1
06972	Zinc	7440-66-6	52.3		3.99	0.200	1
10146	Zirconium	7440-67-7	4.99	U	4.99	0.828	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.399	U	0.399	0.0998	2
06142	Silver	7440-22-4	0.200	U	0.200	0.0200	2
06144	Strontium	7440-24-6	14.9		0.399	0.0339	2
06145	Thallium	7440-28-0	0.244		0.200	0.0299	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0200	U	0.0200	0.0103	1
Wet Chemistry	**SW-846 7199**		**mg/kg**		**mg/kg**	**mg/kg**	
05892	2a Chromium VI by EPA 7199	18540-29-9	0.26	J	0.43	0.15	1
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	2.7		0.10	0.10	1

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

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

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Analysis Report

REVISED

Sample Description: SL-840-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7016772
LLI Group # 1381875
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/09/2013 10:15

Submitted: 04/10/2013 09:20
Reported: 05/06/2013 13:50

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

-840- SDG#: PH027-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	0.980	U	0.980	0.0293	1
11031	12378-PeCDD	40321-76-4	0.175	JB	4.90	0.0370	1
11031	123478-HxCDD	39227-28-6	0.197	JB	4.90	0.0383	1
11031	123678-HxCDD	57653-85-7	0.661	JB	4.90	0.0386	1
11031	123789-HxCDD	19408-74-3	0.443	JB	4.90	0.0344	1
11031	1234678-HpCDD	35822-46-9	12.7	B	4.90	0.0354	1
11031	OCDD	3268-87-9	161	B	9.80	0.0297	1
11031	2378-TCDF	51207-31-9	0.980	U	0.980	0.0329	1
11031	12378-PeCDF	57117-41-6	0.148	JBQ	4.90	0.0208	1
11031	23478-PeCDF	57117-31-4	0.117	JB	4.90	0.0195	1
11031	123478-HxCDF	70648-26-9	0.196	JB	4.90	0.0263	1
11031	123678-HxCDF	57117-44-9	0.173	JBQ	4.90	0.0248	1
11031	123789-HxCDF	72918-21-9	0.204	J	4.90	0.0271	1
11031	234678-HxCDF	60851-34-5	0.187	JB	4.90	0.0251	1
11031	1234678-HpCDF	67562-39-4	2.35	JB	4.90	0.0210	1
11031	1234789-HpCDF	55673-89-7	0.239	JB	4.90	0.0266	1
11031	OCDF	39001-02-0	4.40	JB	9.80	0.0236	1
Toxic Equivalents	**EPA 1613B**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.602				1

Labeled Compounds	**%Rec**	**Windows**
13C12-2378-TCDD	69	25 - 164
13C12-12378-PeCDD	77	25 - 181
13C12-123478-HxCDD	76	32 - 141
13C12-123678-HxCDD	77	28 - 130
13C12-123789-HxCDD	79	28 - 130
13C12-1234678-HpCDD	88	23 - 140
13C12-OCDD	101	17 - 157
13C12-2378-TCDF	66	24 - 169
13C12-12378-PeCDF	78	24 - 185
13C12-23478-PeCDF	75	21 - 178
13C12-123478-HxCDF	77	26 - 152
13C12-123678-HxCDF	80	26 - 123
13C12-234678-HxCDF	77	28 - 136
13C12-123789-HxCDF	79	29 - 147
13C12-1234678-HpCDF	100	28 - 143
13C12-1234789-HpCDF	86	26 - 138
13C12-OCDF	97	17 - 157

Dioxins/Furans Data Qualifiers:

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

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

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Analysis Report

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REVISED

Sample Description: SL-840-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7016772
LLI Group # 1381875
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/09/2013 10:15

Submitted: 04/10/2013 09:20
Reported: 05/06/2013 13:50

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

-840- SDG#: PH027-04

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

F *Interference is present*
S *Saturation of detection signal*

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

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Analysis Report

REVISED

Sample Description: SL-840-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7016772
LLI Group # 1381875
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/09/2013 10:15

Submitted: 04/10/2013 09:20
Reported: 05/06/2013 13:50

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

-840- SDG#: PH027-04

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13105SLA026	04/23/2013	05:34	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	13105SLA026	04/15/2013	14:00	David S Schrum	1
04173	25a Formaldehyde by EPA 8315A	SW-846 8315A	1	131050002A	04/16/2013	18:59	James H Place	1
10592	19a PCBs and PCTs 8082A	SW-846 8082A	1	131050020A	04/20/2013	01:55	Jessica L Miller	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	131050020A	04/16/2013	05:50	Roman Kuropatkin	1
05876	Formaldehyde Solid Extraction	SW-846 8315A	1	131050002A	04/15/2013	14:20	Wanda F Oswald	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	131030014A	04/16/2013	07:20	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	131030014A	04/14/2013	23:55	Roman Kuropatkin	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13101001	04/13/2013	00:58	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13101001	04/11/2013	12:30	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010C	1	131050637003	04/19/2013	17:28	Katlin N Cataldi	1
06944	Antimony	SW-846 6010C	1	131050637003	04/19/2013	17:28	Katlin N Cataldi	1
06935	Arsenic	SW-846 6010C	1	131050637003	04/19/2013	17:28	Katlin N Cataldi	1
06946	Barium	SW-846 6010C	1	131050637003	04/19/2013	17:28	Katlin N Cataldi	1
06947	Beryllium	SW-846 6010C	2	131050637003	04/19/2013	17:28	Katlin N Cataldi	1
07914	Boron	SW-846 6010C	3	131050637003	04/22/2013	14:32	Eric L Eby	1
06949	Cadmium	SW-846 6010C	1	131050637003	04/19/2013	17:28	Katlin N Cataldi	1
01650	Calcium	SW-846 6010C	1	131050637003	04/19/2013	17:28	Katlin N Cataldi	1
06951	Chromium	SW-846 6010C	1	131050637003	04/19/2013	17:28	Katlin N Cataldi	1
06952	Cobalt	SW-846 6010C	1	131050637003	04/19/2013	17:28	Katlin N Cataldi	1
06953	Copper	SW-846 6010C	1	131050637003	04/19/2013	17:28	Katlin N Cataldi	1
01654	Iron	SW-846 6010C	1	131050637003	04/19/2013	17:28	Katlin N Cataldi	1
06955	Lead	SW-846 6010C	1	131050637003	04/19/2013	17:28	Katlin N Cataldi	1
01656	Lithium	SW-846 6010C	2	131050637003	04/19/2013	17:28	Katlin N Cataldi	1
01657	Magnesium	SW-846 6010C	1	131050637003	04/19/2013	17:28	Katlin N Cataldi	1
06958	Manganese	SW-846 6010C	1	131050637003	04/19/2013	17:28	Katlin N Cataldi	1
06960	Molybdenum	SW-846 6010C	2	131050637003	04/19/2013	17:28	Katlin N Cataldi	1
06961	Nickel	SW-846 6010C	1	131050637003	04/19/2013	17:28	Katlin N Cataldi	1
10145	Phosphorus	SW-846 6010C	1	131050637003	04/19/2013	17:28	Katlin N Cataldi	1
01662	Potassium	SW-846 6010C	1	131050637003	04/19/2013	17:28	Katlin N Cataldi	1
01667	Sodium	SW-846 6010C	1	131050637003	04/19/2013	17:28	Katlin N Cataldi	1
06969	Tin	SW-846 6010C	1	131050637003	04/19/2013	17:28	Katlin N Cataldi	1
06970	Titanium	SW-846 6010C	1	131050637003	04/19/2013	17:28	Katlin N Cataldi	1
06971	Vanadium	SW-846 6010C	1	131050637003	04/19/2013	17:28	Katlin N Cataldi	1
06972	Zinc	SW-846 6010C	1	131050637003	04/19/2013	17:28	Katlin N Cataldi	1
10146	Zirconium	SW-846 6010C	1	131050637003	04/19/2013	17:28	Katlin N Cataldi	1

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

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Analysis Report

REVISED

Sample Description: SL-840-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7016772
LLI Group # 1381875
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/09/2013 10:15

Submitted: 04/10/2013 09:20
Reported: 05/06/2013 13:50

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

-840- SDG#: PH027-04

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06141	Selenium	SW-846 6020A	1	131050637003B	04/21/2013 00:12	David K Beck	2
06142	Silver	SW-846 6020A	1	131050637003A	04/21/2013 00:12	David K Beck	2
06144	Strontium	SW-846 6020A	1	131050637003A	04/21/2013 00:12	David K Beck	2
06145	Thallium	SW-846 6020A	1	131050637003A	04/21/2013 00:12	David K Beck	2
00159	3a Mercury 7471A	SW-846 7471B	1	131060638003	04/18/2013 07:20	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	131050637003	04/17/2013 09:07	Denise K Conners	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	131060638003	04/17/2013 11:40	Denise K Conners	1
05892	2a Chromium VI by EPA 7199	SW-846 7199	2	13108243201A	04/19/2013 18:01	Clinton M Wilson	1
02432	Cr VI by EPA 7199 - Ext.	SW-846 3060A	2	13108243201A	04/18/2013 21:00	Daniel S Smith	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13106162401A	04/16/2013 21:43	Scott W Freisher	1

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

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Analysis Report

REVISED

Sample Description: SL-544-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7016773
LLI Group # 1381875
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/09/2013 13:05

Submitted: 04/10/2013 09:20
Reported: 05/06/2013 13:50

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

544-- SDG#: PH027-05

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.68	1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.34	1
12969	Anthracene	120-12-7	1.7	U	1.7	0.34	1
12969	Benzo(a)anthracene	56-55-3	1.7	U	1.7	0.68	1
12969	Benzo(a)pyrene	50-32-8	0.71	J	1.7	0.68	1
12969	Benzo(b)fluoranthene	205-99-2	1.4	J	1.7	0.68	1
12969	Benzo(e)pyrene	192-97-2	17	U	17	3.4	1
12969	Benzo(g,h,i)perylene	191-24-2	1.2	J	1.7	0.68	1
12969	Benzo(k)fluoranthene	207-08-9	1.7	U	1.7	0.68	1
12969	Butylbenzylphthalate	85-68-7	18	U	18	6.1	1
12969	Di-n-butylphthalate	84-74-2	18	U	18	6.1	1
12969	Chrysene	218-01-9	1.6	J	1.7	0.34	1
12969	Dibenz(a,h)anthracene	53-70-3	1.7	U	1.7	0.68	1
12969	Diethylphthalate	84-66-2	18	U	18	6.1	1
12969	Dimethylphthalate	131-11-3	18	U	18	6.1	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	18	U	18	6.1	1
12969	Fluoranthene	206-44-0	1.1	J	1.7	0.68	1
12969	Fluorene	86-73-7	1.7	U	1.7	0.68	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.7	U	1.7	0.68	1
12969	1-Methylnaphthalene	90-12-0	1.7	U	1.7	0.68	1
12969	2-Methylnaphthalene	91-57-6	1.7	U	1.7	0.68	1
12969	Naphthalene	91-20-3	1.7	U	1.7	0.68	1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.68	1
12969	Di-n-octylphthalate	117-84-0	18	U	18	6.1	1
12969	Phenanthrene	85-01-8	0.84	J	1.7	0.68	1
12969	Pyrene	129-00-0	1.1	J	1.7	0.68	1
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
10592	Aroclor 5432	63496-31-1	34	U	34	10	1
10592	Aroclor 5442	12642-23-8	34	U	34	10	1
10592	Aroclor 5460	11126-42-4	34	U	34	10	1
10592	PCB-1016	12674-11-2	17	U	17	3.4	1
10592	PCB-1221	11104-28-2	17	U	17	5.2	1
10592	PCB-1232	11141-16-5	17	U	17	4.2	1
10592	PCB-1242	53469-21-9	17	U	17	3.4	1
10592	PCB-1248	12672-29-6	17	U	17	3.4	1
10592	PCB-1254	11097-69-1	17	U	17	4.5	1
10592	PCB-1260	11096-82-5	17	U	17	4.0	1
10592	PCB-1262	37324-23-5	17	U	17	3.4	1
10592	PCB-1268	11100-14-4	17	U	17	3.4	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.1	U	5.1	2.0	1
12952	EFH (C15-C20)	n.a.	5.4		5.1	2.0	1
12952	EFH (C21-C30)	n.a.	11		5.1	2.0	1
12952	EFH (C30-C40)	n.a.	54		10	4.1	1
12952	EFH (C8-C11)	n.a.	5.1	U	5.1	2.0	1
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	

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

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Analysis Report

REVISED

Sample Description: SL-544-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7016773
LLI Group # 1381875
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/09/2013 13:05

Submitted: 04/10/2013 09:20
Reported: 05/06/2013 13:50

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

544-- SDG#: PH027-05

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	10,800		39.4	7.59	1
06944	Antimony	7440-36-0	3.94	U	3.94	0.492	1
06935	Arsenic	7440-38-2	3.40	J	3.94	0.325	1
06946	Barium	7440-39-3	70.7		0.984	0.0325	1
06947	Beryllium	7440-41-7	0.465	J	0.984	0.0659	1
07914	Boron	7440-42-8	9.84	U	9.84	0.817	1
06949	Cadmium	7440-43-9	0.0699	J	0.984	0.0325	1
01650	Calcium	7440-70-2	2,460		19.7	3.96	1
06951	Chromium	7440-47-3	14.3		2.95	0.0866	1
06952	Cobalt	7440-48-4	3.74		0.984	0.0886	1
06953	Copper	7440-50-8	5.32		1.97	0.177	1
01654	Iron	7439-89-6	18,200		39.4	3.74	1
06955	Lead	7439-92-1	4.04		2.95	0.463	1
01656	Lithium	7439-93-2	25.1		3.9	0.54	1
01657	Magnesium	7439-95-4	4,210		9.84	1.70	1
06958	Manganese	7439-96-5	262		0.984	0.0817	1
06960	Molybdenum	7439-98-7	1.97	U	1.97	0.167	1
06961	Nickel	7440-02-0	7.81		1.97	0.108	1
10145	Phosphorus	7723-14-0	405		9.84	0.502	1
01662	Potassium	7440-09-7	3,280		98.4	13.3	1
01667	Sodium	7440-23-5	66.5	J	98.4	16.4	1
06969	Tin	7440-31-5	2.61	J	9.84	0.217	1
06970	Titanium	7440-32-6	1,000		0.984	0.167	1
06971	Vanadium	7440-62-2	29.2		0.984	0.108	1
06972	Zinc	7440-66-6	56.3		3.94	0.197	1
10146	Zirconium	7440-67-7	4.92	U	4.92	0.817	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.394	U	0.394	0.0984	2
06142	Silver	7440-22-4	0.0205	J	0.197	0.0197	2
06144	Strontium	7440-24-6	10.0		0.394	0.0335	2
06145	Thallium	7440-28-0	0.250		0.197	0.0295	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0199	U	0.0199	0.0103	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045C	n.a.	7.67		0.0100	0.0100	1
	The pH was measured in water at 21.2 C.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	2.3		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

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

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Analysis Report

REVISED

Sample Description: SL-544-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7016773
LLI Group # 1381875
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/09/2013 13:05

Submitted: 04/10/2013 09:20
Reported: 05/06/2013 13:50

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

544-- SDG#: PH027-05

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	0.0275	JQ	1.02	0.0218	1
11031	12378-PeCDD	40321-76-4	0.0609	JB	5.09	0.0292	1
11031	123478-HxCDD	39227-28-6	0.0644	JBQ	5.09	0.0286	1
11031	123678-HxCDD	57653-85-7	0.164	JB	5.09	0.0288	1
11031	123789-HxCDD	19408-74-3	0.153	JBQ	5.09	0.0284	1
11031	1234678-HpCDD	35822-46-9	3.09	JB	5.09	0.0219	1
11031	OCDD	3268-87-9	30.1	B	10.2	0.0188	1
11031	2378-TCDF	51207-31-9	1.02	U	1.02	0.0258	1
11031	12378-PeCDF	57117-41-6	0.0861	JBQ	5.09	0.0156	1
11031	23478-PeCDF	57117-31-4	0.0669	JBQ	5.09	0.0153	1
11031	123478-HxCDF	70648-26-9	0.0972	JB	5.09	0.0205	1
11031	123678-HxCDF	57117-44-9	0.0818	JB	5.09	0.0192	1
11031	123789-HxCDF	72918-21-9	0.0801	JQ	5.09	0.0194	1
11031	234678-HxCDF	60851-34-5	0.0429	JBQ	5.09	0.0185	1
11031	1234678-HpCDF	67562-39-4	0.518	JB	5.09	0.0128	1
11031	1234789-HpCDF	55673-89-7	0.119	JB	5.09	0.0165	1
11031	OCDF	39001-02-0	0.856	JB	10.2	0.0232	1
Toxic Equivalents	**EPA 1613B**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.142				1

Labeled Compounds	**%Rec**	**Windows**
13C12-2378-TCDD	73	25 - 164
13C12-12378-PeCDD	78	25 - 181
13C12-123478-HxCDD	79	32 - 141
13C12-123678-HxCDD	80	28 - 130
13C12-123789-HxCDD	78	28 - 130
13C12-1234678-HpCDD	91	23 - 140
13C12-OCDD	98	17 - 157
13C12-2378-TCDF	69	24 - 169
13C12-12378-PeCDF	81	24 - 185
13C12-23478-PeCDF	79	21 - 178
13C12-123478-HxCDF	83	26 - 152
13C12-123678-HxCDF	84	26 - 123
13C12-234678-HxCDF	82	28 - 136
13C12-123789-HxCDF	87	29 - 147
13C12-1234678-HpCDF	101	28 - 143
13C12-1234789-HpCDF	90	26 - 138
13C12-OCDF	95	17 - 157

Dioxins/Furans Data Qualifiers:

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

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

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Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

REVISED

Sample Description: SL-544-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7016773
LLI Group # 1381875
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/09/2013 13:05

Submitted: 04/10/2013 09:20
Reported: 05/06/2013 13:50

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

544-- SDG#: PH027-05

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

F *Interference is present*
S *Saturation of detection signal*

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

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Analysis Report

REVISED

Sample Description: SL-544-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7016773
LLI Group # 1381875
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/09/2013 13:05

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Reported: 05/06/2013 13:50

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

544-- SDG#: PH027-05

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13105SLA026	04/23/2013	06:03	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	13105SLA026	04/15/2013	14:00	David S Schrum	1
10592	19a PCBs and PCTs 8082A	SW-846 8082A	1	131050020A	04/20/2013	02:14	Jessica L Miller	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	131050020A	04/16/2013	05:50	Roman Kuropatkin	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	131030014A	04/16/2013	08:01	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	131030014A	04/14/2013	23:55	Roman Kuropatkin	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13101001	04/13/2013	04:52	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13101001	04/11/2013	12:30	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010C	1	131050637003	04/19/2013	17:32	Katlin N Cataldi	1
06944	Antimony	SW-846 6010C	1	131050637003	04/19/2013	17:32	Katlin N Cataldi	1
06935	Arsenic	SW-846 6010C	1	131050637003	04/19/2013	17:32	Katlin N Cataldi	1
06946	Barium	SW-846 6010C	1	131050637003	04/19/2013	17:32	Katlin N Cataldi	1
06947	Beryllium	SW-846 6010C	2	131050637003	04/19/2013	17:32	Katlin N Cataldi	1
07914	Boron	SW-846 6010C	3	131050637003	04/22/2013	14:36	Eric L Eby	1
06949	Cadmium	SW-846 6010C	1	131050637003	04/19/2013	17:32	Katlin N Cataldi	1
01650	Calcium	SW-846 6010C	1	131050637003	04/19/2013	17:32	Katlin N Cataldi	1
06951	Chromium	SW-846 6010C	1	131050637003	04/19/2013	17:32	Katlin N Cataldi	1
06952	Cobalt	SW-846 6010C	1	131050637003	04/19/2013	17:32	Katlin N Cataldi	1
06953	Copper	SW-846 6010C	1	131050637003	04/19/2013	17:32	Katlin N Cataldi	1
01654	Iron	SW-846 6010C	1	131050637003	04/19/2013	17:32	Katlin N Cataldi	1
06955	Lead	SW-846 6010C	1	131050637003	04/19/2013	17:32	Katlin N Cataldi	1
01656	Lithium	SW-846 6010C	2	131050637003	04/19/2013	17:32	Katlin N Cataldi	1
01657	Magnesium	SW-846 6010C	1	131050637003	04/19/2013	17:32	Katlin N Cataldi	1
06958	Manganese	SW-846 6010C	1	131050637003	04/19/2013	17:32	Katlin N Cataldi	1
06960	Molybdenum	SW-846 6010C	2	131050637003	04/19/2013	17:32	Katlin N Cataldi	1
06961	Nickel	SW-846 6010C	1	131050637003	04/19/2013	17:32	Katlin N Cataldi	1
10145	Phosphorus	SW-846 6010C	1	131050637003	04/19/2013	17:32	Katlin N Cataldi	1
01662	Potassium	SW-846 6010C	1	131050637003	04/19/2013	17:32	Katlin N Cataldi	1
01667	Sodium	SW-846 6010C	1	131050637003	04/19/2013	17:32	Katlin N Cataldi	1
06969	Tin	SW-846 6010C	1	131050637003	04/19/2013	17:32	Katlin N Cataldi	1
06970	Titanium	SW-846 6010C	1	131050637003	04/19/2013	17:32	Katlin N Cataldi	1
06971	Vanadium	SW-846 6010C	1	131050637003	04/19/2013	17:32	Katlin N Cataldi	1
06972	Zinc	SW-846 6010C	1	131050637003	04/19/2013	17:32	Katlin N Cataldi	1
10146	Zirconium	SW-846 6010C	1	131050637003	04/19/2013	17:32	Katlin N Cataldi	1
06141	Selenium	SW-846 6020A	1	131050637003B	04/21/2013	00:14	David K Beck	2
06142	Silver	SW-846 6020A	1	131050637003A	04/21/2013	00:14	David K Beck	2
06144	Strontium	SW-846 6020A	1	131050637003A	04/21/2013	00:14	David K Beck	2
06145	Thallium	SW-846 6020A	1	131050637003A	04/21/2013	00:14	David K Beck	2

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

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Analysis Report

REVISED

Sample Description: SL-544-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7016773
LLI Group # 1381875
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/09/2013 13:05

Submitted: 04/10/2013 09:20
Reported: 05/06/2013 13:50

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

544-- SDG#: PH027-05

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00159	3a Mercury 7471A	SW-846 7471B	1	131060638003	04/18/2013 07:26	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	131050637003	04/17/2013 09:07	Denise K Conners	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	131060638003	04/17/2013 11:40	Denise K Conners	1
00394	15a pH by 9045C	SW-846 9045D modified	1	13101039401A	04/11/2013 19:40	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13106162401A	04/16/2013 21:43	Scott W Freisher	1

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

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Analysis Report

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REVISED

Sample Description: SL-546-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7016774
LLI Group # 1381875
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/09/2013 14:15

Submitted: 04/10/2013 09:20
Reported: 05/06/2013 13:50

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

-546- SDG#: PH027-06*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Wet Chemistry	**EPA 160.3 modified**		%	%	%	
11624	14a Moisture Content by 160.3	n.a.	1.6	0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.					

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

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Analysis Report

REVISED

Sample Description: SL-546-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7016774
LLI Group # 1381875
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/09/2013 14:15

Submitted: 04/10/2013 09:20
Reported: 05/06/2013 13:50

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

-546- SDG#: PH027-06*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	0.149	J	0.993	0.0300	1
11031	12378-PeCDD	40321-76-4	0.952	JBQ	4.97	0.0619	1
11031	123478-HxCDD	39227-28-6	1.80	JB	4.97	0.0939	1
11031	123678-HxCDD	57653-85-7	5.44	B	4.97	0.0981	1
11031	123789-HxCDD	19408-74-3	3.26	JB	4.97	0.0957	1
11031	1234678-HpCDD	35822-46-9	161	B	4.97	0.134	1
11031	OCDD	3268-87-9	1,700	B	9.93	0.134	1
11031	2378-TCDF	51207-31-9	0.801	J	0.993	0.0896	1
11031	12378-PeCDF	57117-41-6	0.704	JB	4.97	0.0565	1
11031	23478-PeCDF	57117-31-4	1.56	JB	4.97	0.0531	1
11031	123478-HxCDF	70648-26-9	1.62	JB	4.97	0.0764	1
11031	123678-HxCDF	57117-44-9	1.03	JB	4.97	0.0745	1
11031	123789-HxCDF	72918-21-9	0.605	J	4.97	0.101	1
11031	234678-HxCDF	60851-34-5	1.27	JB	4.97	0.0853	1
11031	1234678-HpCDF	67562-39-4	19.2	B	4.97	0.0684	1
11031	1234789-HpCDF	55673-89-7	1.68	JB	4.97	0.0728	1
11031	OCDF	39001-02-0	37.7	B	9.93	0.151	1
Toxic Equivalents	**EPA 1613B**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	4.56				1

Labeled Compounds	**%Rec**	**Windows**
13C12-2378-TCDD	91	25 - 164
13C12-12378-PeCDD	83	25 - 181
13C12-123478-HxCDD	89	32 - 141
13C12-123678-HxCDD	84	28 - 130
13C12-123789-HxCDD	84	28 - 130
13C12-1234678-HpCDD	61	23 - 140
13C12-OCDD	41	17 - 157
13C12-2378-TCDF	92	24 - 169
13C12-12378-PeCDF	88	24 - 185
13C12-23478-PeCDF	85	21 - 178
13C12-123478-HxCDF	100	26 - 152
13C12-123678-HxCDF	99	26 - 123
13C12-234678-HxCDF	94	28 - 136
13C12-123789-HxCDF	87	29 - 147
13C12-1234678-HpCDF	71	28 - 143
13C12-1234789-HpCDF	63	26 - 138
13C12-OCDF	37	17 - 157

Dioxins/Furans Data Qualifiers:

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

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

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Analysis Report

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REVISED

Sample Description: SL-546-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7016774
LLI Group # 1381875
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/09/2013 14:15

Submitted: 04/10/2013 09:20
Reported: 05/06/2013 13:50

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

-546- SDG#: PH027-06*

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

F *Interference is present*
S *Saturation of detection signal*

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

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2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Analysis Report

REVISED

Sample Description: SL-546-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7016774
LLI Group # 1381875
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/09/2013 14:15

Submitted: 04/10/2013 09:20
Reported: 05/06/2013 13:50

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

-546- SDG#: PH027-06*

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13101001	04/13/2013 05:49	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13101001	04/11/2013 12:30	Deborah M Zimmerman	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13106162401A	04/16/2013 21:43	Scott W Freisher	1

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

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1381875
Reported: 05/06/13 at 01:50 PM

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 13105SLA026	Sample number(s): 7016766-7016770,7016772-7016773									
Acenaphthene	1.7	U	1.7	0.67	ug/kg	120*		69-114		
Acenaphthylene	1.7	U	1.7	0.33	ug/kg	111		71-113		
Anthracene	1.7	U	1.7	0.33	ug/kg	107		75-116		
Benzo(a)anthracene	1.7	U	1.7	0.67	ug/kg	104		76-115		
Benzo(a)pyrene	1.7	U	1.7	0.67	ug/kg	105		76-117		
Benzo(b)fluoranthene	1.7	U	1.7	0.67	ug/kg	113		77-129		
Benzo(e)pyrene	17	U	17.	3.3	ug/kg	92		70-130		
Benzo(g,h,i)perylene	1.7	U	1.7	0.67	ug/kg	104		64-120		
Benzo(k)fluoranthene	1.7	U	1.7	0.67	ug/kg	102		71-120		
Butylbenzylphthalate	18	U	18.	6.0	ug/kg	107		65-131		
Di-n-butylphthalate	18	U	18.	6.0	ug/kg	109		67-140		
Chrysene	1.7	U	1.7	0.33	ug/kg	105		78-111		
Dibenz(a,h)anthracene	1.7	U	1.7	0.67	ug/kg	103		65-124		
Diethylphthalate	18	U	18.	6.0	ug/kg	125		68-125		
Dimethylphthalate	18	U	18.	6.0	ug/kg	110		70-130		
Bis(2-Ethylhexyl)phthalate	18	U	18.	6.0	ug/kg	107		67-143		
Fluoranthene	1.7	U	1.7	0.67	ug/kg	105		68-119		
Fluorene	1.7	U	1.7	0.67	ug/kg	120		75-123		
Indeno(1,2,3-cd)pyrene	1.7	U	1.7	0.67	ug/kg	103		66-122		
1-Methylnaphthalene	1.7	U	1.7	0.67	ug/kg	104		74-113		
2-Methylnaphthalene	1.7	U	1.7	0.67	ug/kg	108		78-121		
Naphthalene	1.7	U	1.7	0.67	ug/kg	103		64-120		
N-Nitrosodimethylamine	1.7	U	1.7	0.67	ug/kg	87		30-125		
Di-n-octylphthalate	18	U	18.	6.0	ug/kg	105		57-133		
Phenanthrene	1.7	U	1.7	0.67	ug/kg	101		72-110		
Pyrene	1.7	U	1.7	0.67	ug/kg	111		71-120		
Batch number: 131050002A	Sample number(s): 7016768-7016770,7016772									
25a Formaldehyde by EPA 8315A	2,000 U		2,000.	1,200	ug/kg	117		80-126		
Batch number: 131050020A	Sample number(s): 7016766-7016770,7016772-7016773									
Aroclor 5432	33	U	33.	10	ug/kg					
Aroclor 5442	33	U	33.	10	ug/kg	70	75	36-106	6	30
Aroclor 5460	33	U	33.	10	ug/kg					
PCB-1016	17	U	17.	3.3	ug/kg	84		80-120		
PCB-1221	17	U	17.	5.1	ug/kg					
PCB-1232	17	U	17.	4.1	ug/kg					
PCB-1242	17	U	17.	3.3	ug/kg					
PCB-1248	17	U	17.	3.3	ug/kg					
PCB-1254	17	U	17.	4.4	ug/kg					
PCB-1260	17	U	17.	3.9	ug/kg	105		72-120		
PCB-1262	17	U	17.	3.3	ug/kg					

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1381875
Reported: 05/06/13 at 01:50 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
PCB-1268	17	U	17.	3.3	ug/kg					
Batch number: 131030014A	Sample number(s): 7016766-7016770,7016772-7016773									
EFH (C12-C14)	5.0	U	5.0	2.0	mg/kg	93		70-123		
EFH (C15-C20)	5.0	U	5.0	2.0	mg/kg	98		75-128		
EFH (C21-C30)	5.0	U	5.0	2.0	mg/kg	98		64-134		
EFH (C30-C40)	10	U	10.	4.0	mg/kg	70		65-128		
EFH (C8-C11)	5.0	U	5.0	2.0	mg/kg	73		49-107		
Batch number: 131050637003	Sample number(s): 7016766-7016773									
Aluminum	40.0	U	40.0	7.71	mg/kg	103		80-120		
Antimony	4.00	U	4.00	0.500	mg/kg	113		80-120		
Arsenic	4.00	U	4.00	0.330	mg/kg	105		80-120		
Barium	1.00	U	1.00	0.0330	mg/kg	104		80-120		
Beryllium	1.00	U	1.00	0.0670	mg/kg	104		80-120		
Boron	10.0	U	10.0	0.830	mg/kg	98		80-120		
Cadmium	1.00	U	1.00	0.0330	mg/kg	107		80-120		
Calcium	4.23	J	20.0	4.02	mg/kg	105		80-120		
Chromium	3.00	U	3.00	0.0880	mg/kg	103		80-120		
Cobalt	1.00	U	1.00	0.0900	mg/kg	107		80-120		
Copper	2.00	U	2.00	0.180	mg/kg	105		80-120		
Iron	40.0	U	40.0	3.80	mg/kg	100		80-120		
Lead	3.00	U	3.00	0.470	mg/kg	109		80-120		
Lithium	4.0	U	4.0	0.55	mg/kg	102		80-120		
Magnesium	10.0	U	10.0	1.73	mg/kg	102		80-120		
Manganese	1.00	U	1.00	0.0830	mg/kg	104		80-120		
Molybdenum	2.00	U	2.00	0.170	mg/kg	107		80-120		
Nickel	2.00	U	2.00	0.110	mg/kg	109		80-120		
Phosphorus	14.4		10.0	0.510	mg/kg	120		80-120		
Potassium	100 U		100.	13.5	mg/kg	101		80-120		
Sodium	100 U		100.	16.7	mg/kg	100		80-120		
Tin	1.39	J	10.0	0.220	mg/kg	106		80-120		
Titanium	1.00	U	1.00	0.170	mg/kg	104		80-120		
Vanadium	1.00	U	1.00	0.110	mg/kg	106		80-120		
Zinc	0.273	J	4.00	0.200	mg/kg	108		80-120		
Zirconium	5.00	U	5.00	0.830	mg/kg	104		80-120		
Batch number: 131050637003A	Sample number(s): 7016766-7016773									
Silver	0.200	U	0.200	0.0200	mg/kg	108		80-120		
Strontium	0.400	U	0.400	0.0340	mg/kg	102		80-120		
Thallium	0.200	U	0.200	0.0300	mg/kg	111		80-120		
Batch number: 131050637003B	Sample number(s): 7016766-7016773									
Selenium	0.400	U	0.400	0.100	mg/kg	120		80-120		
Batch number: 131060638003	Sample number(s): 7016766-7016773									
3a Mercury 7471A	0.0167	U	0.0167	0.0103	mg/kg	100		85-120		
Batch number: 13108243201A	Sample number(s): 7016768,7016771-7016772									
2a Chromium VI by EPA 7199	1.0	U	1.0	0.20	mg/kg	88		80-120		
Batch number: 13101039401A	Sample number(s): 7016766-7016767,7016773									
15a pH by 9045C						100		95-105		

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1381875
Reported: 05/06/13 at 01:50 PM

Analysis Name	Blank Result	Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 13106162401A	Sample number(s): 7016766-7016774								
14a Moisture Content by 160.3					100		80-120		
14a Moisture Content by 160.3					100		80-120		
14a Moisture Content by 160.3					100		80-120		

Analysis Name	Blank Result	Blank MRL**	Blank EDL	Report Units	OPR %REC	OPRD %REC	OPR/OPRD Limits	RPD	RPD Max
Batch number: 13101001	Sample number(s): 7016766-7016770,7016772-7016774								
2378-TCDD	1.00 U	1.00	0.0271	ng/kg	91		67-158		
12378-PeCDD	0.0393 J	5.00	0.0265	ng/kg	97		70-142		
123478-HxCDD	0.0258 J	5.00	0.0175	ng/kg	105		70-164		
123678-HxCDD	0.0317 J	5.00	0.0182	ng/kg	100		76-134		
123789-HxCDD	0.0327 J	5.00	0.0178	ng/kg	101		64-162		
1234678-HpCDD	0.0607 J	5.00	0.0190	ng/kg	100		70-140		
OCDD	0.181 J	10.0	0.0162	ng/kg	100		78-144		
2378-TCDF	1.00 U	1.00	0.0242	ng/kg	99		75-158		
12378-PeCDF	0.0399 J	5.00	0.0129	ng/kg	102		80-134		
23478-PeCDF	0.0324 J	5.00	0.0124	ng/kg	103		68-160		
123478-HxCDF	0.0274 J	5.00	0.0128	ng/kg	105		72-134		
123678-HxCDF	0.0363 J	5.00	0.0119	ng/kg	102		84-130		
123789-HxCDF	5.00 U	5.00	0.0152	ng/kg	104		78-130		
234678-HxCDF	0.0246 J	5.00	0.0130	ng/kg	102		70-156		
1234678-HpCDF	0.0395 J	5.00	0.00705	ng/kg	102		82-122		
1234789-HpCDF	0.0369 J	5.00	0.00940	ng/kg	103		78-138		
OCDF	0.120 J	10.0	0.0256	ng/kg	102		63-170		
TEQ WHO 2005 - EDLx0.0	0.0000540			ng/kg					

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 13105SLA026	Sample number(s): 7016766-7016770,7016772-7016773 UNSPK: 7016768								
Acenaphthene	116	110	48-127	6	30				
Acenaphthylene	112	109	49-121	3	30				
Anthracene	107	105	52-126	2	30				
Benzo(a)anthracene	103	106	32-135	3	30				
Benzo(a)pyrene	101	99	36-138	2	30				
Benzo(b)fluoranthene	111	107	26-142	4	30				
Benzo(e)pyrene	1*	1*	70-130	1	30				
Benzo(g,h,i)perylene	97	93	33-141	4	30				
Benzo(k)fluoranthene	93	91	47-129	2	30				
Butylbenzylphthalate	102	99	59-153	2	30				
Di-n-butylphthalate	123	110	62-154	11	30				
Chrysene	102	103	29-148	1	30				

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1381875
Reported: 05/06/13 at 01:50 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Dibenz(a,h)anthracene	107	103	34-125	4	30				
Diethylphthalate	135*	133*	76-127	1	30				
Dimethylphthalate	116	110	62-136	5	30				
Bis(2-Ethylhexyl)phthalate	66	69	39-167	2	30				
Fluoranthene	95	91	47-135	5	30				
Fluorene	109	109	50-129	0	30				
Indeno(1,2,3-cd)pyrene	107	101	17-136	6	30				
1-Methylnaphthalene	104	102	50-131	1	30				
2-Methylnaphthalene	107	106	28-144	1	30				
Naphthalene	101	100	31-148	2	30				
N-Nitrosodimethylamine	79	76	48-113	3	30				
Di-n-octylphthalate	97	96	52-162	2	30				
Phenanthrene	105	104	29-142	1	30				
Pyrene	105	108	26-143	3	30				
Batch number: 131050002A	Sample number(s): 7016768-7016770,7016772 UNSPK: 7016768								
25a Formaldehyde by EPA 8315A	107	103	66-134	3	50				
Batch number: 131050020A	Sample number(s): 7016766-7016770,7016772-7016773 UNSPK: 7016768								
PCB-1016	100	72	16-146	31	50				
PCB-1260	104	70	40-134	39	50				
Batch number: 131030014A	Sample number(s): 7016766-7016770,7016772-7016773 UNSPK: 7016768								
EFH (C12-C14)	90	91	49-123	0	20				
EFH (C15-C20)	60	116	49-123	27*	20				
EFH (C21-C30)	102	91	49-123	6	20				
EFH (C30-C40)	40*	134*	49-123	22*	20				
EFH (C8-C11)	73	75	49-123	1	20				
Batch number: 131050637003	Sample number(s): 7016766-7016773 UNSPK: 7016768 BKG: 7016768								
Aluminum	1818 (2)	1689 (2)	75-125	1	20	12,800	13,500	5	20
Antimony	48*	47*	75-125	0	20	3.96 U	3.92 U	0 (1)	20
Arsenic	94	96	75-125	3	20	4.05	4.49	10 (1)	20
Barium	97	99	75-125	3	20	70.3	69.9	1	20
Beryllium	102	101	75-125	1	20	0.538 J	0.550 J	2 (1)	20
Boron	99	106	75-125	9	20	9.90 U	9.80 U	0 (1)	20
Cadmium	94	99	75-125	7	20	0.0703 J	0.116 J	49* (1)	20
Calcium	17 (2)	365 (2)	75-125	37*	20	2,990	2,910	3	20
Chromium	102	104	75-125	2	20	14.7	14.3	3 (1)	20
Cobalt	92	94	75-125	3	20	4.14	3.71	11 (1)	20
Copper	96	103	75-125	7	20	6.49	6.12	6 (1)	20
Iron	-545 (2)	-1097 (2)	75-125	3	20	18,400	17,300	7	20
Lead	90	93	75-125	4	20	5.05	5.12	2 (1)	20
Lithium	100	100	75-125	1	20	21.7	20.4	6	20
Magnesium	169 (2)	78 (2)	75-125	4	20	3,950	3,710	6	20
Manganese	131 (2)	65 (2)	75-125	11	20	236	220	7	20
Molybdenum	94	95	75-125	3	20	0.650 J	0.234 J	94* (1)	20
Nickel	93	97	75-125	5	20	8.52	8.24	3 (1)	20
Phosphorus	56*	127*	75-125	15	20	385	365	5	20
Potassium	81	65*	75-125	3	20	3,440	3,290	5	20

*- Outside of specification
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(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1381875
Reported: 05/06/13 at 01:50 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Sodium	98	97	75-125	2	20	67.0 J	66.0 J	2 (1)	20
Tin	87	89	75-125	4	20	2.67 J	2.57 J	4 (1)	20
Titanium	325 (2)	208 (2)	75-125	10	20	859	880	2	20
Vanadium	106	102	75-125	1	20	28.8	28.6	1	20
Zinc	83	100	75-125	9	20	54.0	50.4	7	20
Zirconium	98	97	75-125	1	20	0.891 J	1.71 J	63* (1)	20
Batch number: 131050637003A	Sample number(s): 7016766-7016773 UNSPK: 7016768 BKG: 7016768								
Silver	97	101	75-125	7	20	0.0232 J	0.0211 J	9 (1)	20
Strontium	92	153*	75-125	17	20	18.8	17.7	6	20
Thallium	105	113	75-125	6	20	0.216	0.224	3 (1)	20
Batch number: 131050637003B	Sample number(s): 7016766-7016773 UNSPK: 7016768 BKG: 7016768								
Selenium	95	89	75-125	4	20	0.0990 J	0.165 J	50* (1)	20
Batch number: 131060638003	Sample number(s): 7016766-7016773 UNSPK: 7016768 BKG: 7016768								
3a Mercury 7471A	114	115	65-135	1	20	0.0195 U	0.0189 U	0 (1)	20
Batch number: 13108243201A	Sample number(s): 7016768,7016771-7016772 UNSPK: 7016768 BKG: 7016768								
2a Chromium VI by EPA 7199	88		75-125			0.36 J	0.43	19 (1)	20
Batch number: 13101039401A	Sample number(s): 7016766-7016767,7016773 BKG: 7016766								
15a pH by 9045C						7.59	7.61	0	3
Batch number: 13106162401A	Sample number(s): 7016766-7016774 BKG: 7016768								
14a Moisture Content by 160.3						3.3	3.0	12	20
14a Moisture Content by 160.3						3.3	3.0	12	20
14a Moisture Content by 160.3						3.3	3.0	12	20
Batch number: 13101001	Sample number(s): 7016766-7016770,7016772-7016774 UNSPK: 7016768								
2378-TCDD	92	91	40-135	4	20				
12378-PeCDD	97	97	40-135	3	20				
123478-HxCDD	101	103	40-135	0	20				
123678-HxCDD	102	101	40-135	3	20				
123789-HxCDD	100	100	40-135	2	20				
1234678-HpCDD	95	99	40-135	1	20				
OCDD	79	94	40-135	10	20				
2378-TCDF	99	97	40-135	4	20				
12378-PeCDF	101	98	40-135	5	20				
23478-PeCDF	104	103	40-135	3	20				
123478-HxCDF	105	102	40-135	5	20				
123678-HxCDF	103	101	40-135	4	20				
123789-HxCDF	102	105	40-135	0	20				
234678-HxCDF	103	100	40-135	5	20				
1234678-HpCDF	101	101	40-135	2	20				
1234789-HpCDF	101	102	40-135	1	20				
OCDF	100	101	40-135	2	20				

*- Outside of specification
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(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1381875
Reported: 05/06/13 at 01:50 PM

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 7a SVOC SIM EPA 8270D
Batch number: 13105SLA026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
7016766	80	90	90
7016767	84	97	96
7016768	85	97	93
7016769	83	98	99
7016770	80	96	94
7016772	80	92	93
7016773	82	98	93
Blank	88	96	124
LCS	89	99	97
MS	83	98	99
MSD	80	96	94
Limits:	54-129	61-134	55-129

Analysis Name: 25a Formaldehyde by EPA 8315A
Batch number: 131050002A

	Butyraldehyde
7016768	89
7016769	103
7016770	105
7016772	105
Blank	105
LCS	108
MS	103
MSD	105
Limits:	64-126

Analysis Name: 19a PCBs and PCTs 8082A
Batch number: 131050020A

	Tetrachloro-m-xylene	Decachlorobiphenyl
7016766	111	85
7016767	116	85
7016768	111	86
7016769	120	93
7016770	79	73
7016772	112	118
7016773	117	83
Blank	117	87
LCS	117	90
LCSD	121*	94
MS	120	93
MSD	79	73
Limits:	45-120	45-120

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1381875
Reported: 05/06/13 at 01:50 PM

Surrogate Quality Control

Analysis Name: 10a TPH by EPA 8015B (DRO)
Batch number: 131030014A

	Chlorobenzene	Orthoterphenyl
7016766	117	106
7016767	84	82
7016768	89	81
7016769	85	78
7016770	88	73
7016772	88	80
7016773	91	88
Blank	86	81
LCS	88	90
MS	85	78
MSD	87	73
Limits:	37-125	66-123

Analysis Name: 23a Dioxin/Furan by EPA 1613B
Batch number: 13101001

	13C12-2378-TCDD	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF	13C12-234678-HxCDF	13C12-123789-HxCDF
7016766	77	81	86	85	85	88
7016767	74	83	87	89	86	86
7016768	68	77	81	84	80	81
7016769	70	78	83	85	84	87
7016770	71	79	84	85	84	80
7016772	69	75	77	80	77	79
7016773	73	79	83	84	82	87
7016774	91	85	100	99	94	87
Blank	71	80	88	93	88	84
MS	70	78	83	85	84	87
MSD	71	79	84	85	84	80
OPR	67	76	84	88	86	83
Limits:	25-164	21-178	26-152	26-123	28-136	29-147

	13C12-1234678-HpCDF	13C12-1234789-HpCDF	13C12-OCDF	13C12-12378-PeCDD	13C12-123478-HxCDD	13C12-123678-HxCDD
7016766	96	96	113	81	82	81
7016767	102	98	110	83	83	83
7016768	102	89	99	76	76	80
7016769	96	90	101	77	83	81
7016770	95	87	103	80	79	80
7016772	100	86	97	77	76	77
7016773	101	90	95	78	79	80
7016774	71	63	37	83	89	84
Blank	105	87	92	82	88	87
MS	96	90	101	77	83	81
MSD	95	87	103	80	79	80
OPR	97	84	87	78	81	84
Limits:	28-143	26-138	17-157	25-181	32-141	28-130

	13C12-123789-HxCDD	13C12-1234678-HpCDD	13C12-OCDD	13C12-2378-TCDF	13C12-12378-PeCDF

*- Outside of specification
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(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1381875
Reported: 05/06/13 at 01:50 PM

Surrogate Quality Control

7016766	80	91	111	74	80
7016767	83	94	107	74	83
7016768	79	87	104	63	77
7016769	85	86	98	66	78
7016770	82	87	100	68	80
7016772	79	88	101	66	78
7016773	78	91	98	69	81
7016774	84	61	41	92	88
Blank	86	90	95	67	82
MS	85	86	98	66	78
MSD	82	87	100	68	80
OPR	82	83	87	65	77
Limits:	28-130	23-140	17-157	24-169	24-185

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

SSFL Phase 3 Chain of Custody

A-13013 G-1381875 S-7016766-74

CDM Smith

DateShipped: 4/9/2013
CarrierName: FedEx
AirbillNo: 799485562831

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20130409-01
Cooler #: 1, 2
Lab: Lancaster
Lab Phone: 717-556-7259
Lab Address: 2425 New Holland Pike Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Other Analysis/Notes
SL-539-SA7-SB-0.0-0.5	4/8/13 12:45	SO	None	2 - SS-Sleeve	0	X	X					X		X	X										X												
SL-539-SA7-SB-0.0-0.5	4/8/13 12:45	SO	None	1 - 4 oz glass	0														X																		
SL-542-SA7-SB-0.0-0.5	4/9/13 08:40	SO	None	2 - SS-Sleeve	0	X	X					X		X	X										X												
SL-542-SA7-SB-0.0-0.5	4/9/13 08:40	SO	None	1 - 4 oz glass	0														X																		
SL-540-SA7-SB-0.0-0.5MS	4/9/13 10:10	SO	None	6 - SS-Sleeve	0	X	X					X		X	X																		X				MS/MSD
SL-540-SA7-SB-0.0-0.5MS	4/9/13 10:10	SO	None	2 - 16 oz glass	0															X					X												MS/MSD
SL-840-SA7-SB-0.0-0.5	4/9/13 10:15	SO	None	2 - SS-Sleeve	0	X	X					X		X	X																		X				
SL-840-SA7-SB-0.0-0.5	4/9/13 10:15	SO	None	2 - 4 oz glass	0															X					X												
SL-544-SA7-SB-0.0-0.5	4/9/13 13:05	SO	None	2 - SS-Sleeve	0	X	X					X		X	X										X												
SL-544-SA7-SB-0.0-0.5	4/9/13 13:05	SO	None	1 - 4 oz glass	0														X																		
SL-546-SA7-SB-0.0-0.5	4/9/13 14:15	SO	None	1 - SS-Sleeve	0									X																							

Special Instructions:

Sampler: Steven Mann

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
[illegible]	4/9/13								[illegible]	4/10/13	920

eurofins | Lancaster Laboratories

G-1381875

Environmental Sample Administration
Receipt Documentation Log

Client/Project: CDM

Date of Receipt: 4·10·13

Time of Receipt: 920

Source Code: 50-1

Shipping Container Sealed: (YES) NO

Custody Seal Present * : (YES) NO

* Custody seal was intact unless otherwise noted in the discrepancy section

Package: (Chilled) Not Chilled

Temperature of Shipping Containers							
Cooler #	Thermometer ID	Temperature (°C)	Temp Bottle (TB) or Surface Temp (ST)	Wet Ice (WI) or Dry Ice (DI) or Ice Packs (IP)	Ice Present? Y/N	Loose (L) Bagged Ice (B) or NA	Comments
1	1396	2.4	TB	WI	Y	B	
2	↓	1.9	↓	↓	↓	↓	
3							
4							
5							
6							

Number of Trip Blanks received NOT listed on chain of custody: 0

Paperwork Discrepancy/Unpacking Problems:

Unpacker Signature/Emp#: [illegible] 2299 **Date/Time:** 4·10·13 1121

Issued by Dept. 6042 Management

2174.06

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	**BMQL**	Below Minimum Quantitation Level
N.D.	none detected	**MPN**	Most Probable Number
TNTC	Too Numerous To Count	**CP Units**	cobalt-chloroplatinate units
IU	International Units	**NTU**	nephelometric turbidity units
umhos/cm	micromhos/cm	**ng**	nanogram(s)
C	degrees Celsius	**F**	degrees Fahrenheit
meq	milliequivalents	**lb.**	pound(s)
g	gram(s)	**kg**	kilogram(s)
µg	microgram(s)	**mg**	milligram(s)
mL	milliliter(s)	**L**	liter(s)
m3	cubic meter(s)	**µL**	microliter(s)
		pg/L	picogram/liter

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

J estimated value – The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	**B**	Value is <CRDL, but ≥IDL
B	Analyte was also detected in the blank	**E**	Estimated due to interference
C	Pesticide result confirmed by GC/MS	**M**	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	**N**	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	**S**	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	**U**	Compound was not detected
P	Concentration difference between primary and confirmation columns >25%	**W**	Post digestion spike out of control limits
U	Compound was not detected	*****	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	**+**	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as “analyze immediately” are not performed within 15 minutes.

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ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

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

April 25, 2013

Project: Phase 3 Subarea 7

Submittal Date: 04/11/2013
Group Number: 1382144
SDG: PH028
PO Number: 1204-002-001-AL
State of Sample Origin: CA

Client Sample Description	Lancaster Labs (LLI) #
SL-547-SA7-SB-0.0-0.5 Soil	7018431
SL-552-SA7-SB-0.0-0.5 Soil	7018432
SL-551-SA7-SB-0.0-0.5 Soil	7018433
SL-551-SA7-SB-2.0-3.0 Soil	7018434
TB-041013 Water	7018435
SL-548-SA7-SB-0.0-0.5 Soil	7018436
SL-549-SA7-SB-0.0-0.5 Soil	7018437

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

ELECTRONIC COPY TO	LLI	Attn: Nicole Maljovec
ELECTRONIC COPY TO	Eurofins Lancaster Labs	Attn: Natalie Luciano

Respectfully Submitted,

Nicole L. Maljovec
Principal Specialist Group Leader

(717) 556-7259

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Analysis Report

Sample Description: SL-547-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7018431
LLI Group # 1382144
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/09/2013 15:10 by SM

Submitted: 04/11/2013 10:00
Reported: 04/25/2013 14:39

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

SL547 SDG#: PH028-01

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.68	1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.34	1
12969	Anthracene	120-12-7	1.7	U	1.7	0.34	1
12969	Benzo(a)anthracene	56-55-3	1.1	J	1.7	0.68	1
12969	Benzo(a)pyrene	50-32-8	1.4	J	1.7	0.68	1
12969	Benzo(b)fluoranthene	205-99-2	2.9		1.7	0.68	1
12969	Benzo(e)pyrene	192-97-2	17	U	17	3.4	1
12969	Benzo(g,h,i)perylene	191-24-2	1.0	J	1.7	0.68	1
12969	Benzo(k)fluoranthene	207-08-9	0.93	J	1.7	0.68	1
12969	Butylbenzylphthalate	85-68-7	18	U	18	6.1	1
12969	Di-n-butylphthalate	84-74-2	18	U	18	6.1	1
12969	Chrysene	218-01-9	2.9		1.7	0.34	1
12969	Dibenz(a,h)anthracene	53-70-3	1.7	U	1.7	0.68	1
12969	Diethylphthalate	84-66-2	18	U	18	6.1	1
12969	Dimethylphthalate	131-11-3	18	U	18	6.1	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	18	U	18	6.1	1
12969	Fluoranthene	206-44-0	4.7		1.7	0.68	1
12969	Fluorene	86-73-7	1.7	U	1.7	0.68	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.0	J	1.7	0.68	1
12969	1-Methylnaphthalene	90-12-0	1.7	U	1.7	0.68	1
12969	2-Methylnaphthalene	91-57-6	1.7	U	1.7	0.68	1
12969	Naphthalene	91-20-3	1.7	U	1.7	0.68	1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.68	1
12969	Di-n-octylphthalate	117-84-0	18	U	18	6.1	1
12969	Phenanthrene	85-01-8	3.0		1.7	0.68	1
12969	Pyrene	129-00-0	4.7		1.7	0.68	1
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
10592	Aroclor 5432	63496-31-1	34	U	34	10	1
10592	Aroclor 5442	12642-23-8	34	U	34	10	1
10592	Aroclor 5460	11126-42-4	34	U	34	10	1
10592	PCB-1016	12674-11-2	17	U	17	3.4	1
10592	PCB-1221	11104-28-2	17	U	17	5.2	1
10592	PCB-1232	11141-16-5	17	U	17	4.2	1
10592	PCB-1242	53469-21-9	17	U	17	3.4	1
10592	PCB-1248	12672-29-6	17	U	17	3.4	1
10592	PCB-1254	11097-69-1	17	U	17	4.5	1
10592	PCB-1260	11096-82-5	17	U	17	4.0	1
10592	PCB-1262	37324-23-5	17	U	17	3.4	1
10592	PCB-1268	11100-14-4	17	U	17	3.4	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.1	U	5.1	2.0	1
12952	EFH (C15-C20)	n.a.	5.1	U	5.1	2.0	1
12952	EFH (C21-C30)	n.a.	4.7	J	5.1	2.0	1
12952	EFH (C30-C40)	n.a.	9.6	J	10	4.1	1
12952	EFH (C8-C11)	n.a.	5.1	U	5.1	2.0	1
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	

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

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Analysis Report

Sample Description: SL-547-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7018431
LLI Group # 1382144
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/09/2013 15:10 by SM

Submitted: 04/11/2013 10:00
Reported: 04/25/2013 14:39

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

SL547 SDG#: PH028-01

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	11,400		40.1	7.73	1
06944	Antimony	7440-36-0	4.01	U	4.01	0.501	1
06935	Arsenic	7440-38-2	3.78	J	4.01	0.331	1
06946	Barium	7440-39-3	67.8		1.00	0.0331	1
06947	Beryllium	7440-41-7	0.475	J	1.00	0.0672	1
07914	Boron	7440-42-8	2.59	J	10.0	0.832	1
06949	Cadmium	7440-43-9	0.0531	J	1.00	0.0331	1
01650	Calcium	7440-70-2	1,360		20.0	4.03	1
06951	Chromium	7440-47-3	9.79		3.01	0.0882	1
06952	Cobalt	7440-48-4	3.19		1.00	0.0902	1
06953	Copper	7440-50-8	3.54		2.00	0.180	1
01654	Iron	7439-89-6	16,500		40.1	3.81	1
06955	Lead	7439-92-1	5.62		3.01	0.471	1
01656	Lithium	7439-93-2	22.5		4.0	0.55	1
01657	Magnesium	7439-95-4	3,120		10.0	1.73	1
06958	Manganese	7439-96-5	237		1.00	0.0832	1
06960	Molybdenum	7439-98-7	2.00	U	2.00	0.170	1
06961	Nickel	7440-02-0	5.93		2.00	0.110	1
10145	Phosphorus	7723-14-0	277		10.2	0.521	1
01662	Potassium	7440-09-7	3,600		100	13.5	1
01667	Sodium	7440-23-5	66.5	J	100	16.7	1
06969	Tin	7440-31-5	2.60	J	10.0	0.221	1
06970	Titanium	7440-32-6	958		1.00	0.170	1
06971	Vanadium	7440-62-2	21.3		1.00	0.110	1
06972	Zinc	7440-66-6	56.4		4.01	0.200	1
10146	Zirconium	7440-67-7	5.01	U	5.01	0.832	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.401	U	0.401	0.100	2
06142	Silver	7440-22-4	0.200	U	0.200	0.0200	2
06144	Strontium	7440-24-6	7.03		0.401	0.0341	2
06145	Thallium	7440-28-0	0.257		0.200	0.0301	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0203	U	0.0203	0.0105	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045C	n.a.	5.94		0.0100	0.0100	1
	The pH was measured in water at 21.1 C.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	2.2		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

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

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Analysis Report

Sample Description: SL-547-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7018431
LLI Group # 1382144
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/09/2013 15:10 by SM

Submitted: 04/11/2013 10:00
Reported: 04/25/2013 14:39

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

SL547 SDG#: PH028-01

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.105	JQ	1.02	0.0394	1
11031	12378-PeCDD	40321-76-4	0.263	JBQ	5.11	0.0513	1
11031	123478-HxCDD	39227-28-6	0.315	JB	5.11	0.0449	1
11031	123678-HxCDD	57653-85-7	1.35	J	5.11	0.0472	1
11031	123789-HxCDD	19408-74-3	0.687	JB	5.11	0.0463	1
11031	1234678-HpCDD	35822-46-9	13.0	B	5.11	0.0714	1
11031	OCDD	3268-87-9	128	B	10.2	0.0826	1
11031	2378-TCDF	51207-31-9	0.183	J	1.02	0.0641	1
11031	12378-PeCDF	57117-41-6	0.365	JBQ	5.11	0.0324	1
11031	23478-PeCDF	57117-31-4	0.485	JB	5.11	0.0361	1
11031	123478-HxCDF	70648-26-9	0.321	JB	5.11	0.0517	1
11031	123678-HxCDF	57117-44-9	0.512	JB	5.11	0.0401	1
11031	123789-HxCDF	72918-21-9	0.243	JB	5.11	0.0703	1
11031	234678-HxCDF	60851-34-5	0.445	JB	5.11	0.0472	1
11031	1234678-HpCDF	67562-39-4	1.81	JB	5.11	0.0302	1
11031	1234789-HpCDF	55673-89-7	0.435	JB	5.11	0.0703	1
11031	OCDF	39001-02-0	3.66	JB	10.2	0.116	1
Toxic Equivalents	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.743				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	65	25 - 164
13C12-12378-PeCDD	82	25 - 181
13C12-123478-HxCDD	77	32 - 141
13C12-123678-HxCDD	79	28 - 130
13C12-123789-HxCDD	76	28 - 130
13C12-1234678-HpCDD	73	23 - 140
13C12-OCDD	64	17 - 157
13C12-2378-TCDF	56	24 - 169
13C12-12378-PeCDF	82	24 - 185
13C12-23478-PeCDF	69	21 - 178
13C12-123478-HxCDF	66	26 - 152
13C12-123678-HxCDF	82	26 - 123
13C12-234678-HxCDF	70	28 - 136
13C12-123789-HxCDF	53	29 - 147
13C12-1234678-HpCDF	101	28 - 143
13C12-1234789-HpCDF	49	26 - 138
13C12-OCDF	41	17 - 157

Dioxins/Furans Data Qualifiers:

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

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

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Analysis Report

Sample Description: SL-547-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7018431
LLI Group # 1382144
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/09/2013 15:10 by SM

Submitted: 04/11/2013 10:00
Reported: 04/25/2013 14:39

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

SL547 SDG#: PH028-01

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

F *Interference is present*
S *Saturation of detection signal*

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

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Analysis Report

Sample Description: SL-547-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7018431
LLI Group # 1382144
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/09/2013 15:10 by SM

Submitted: 04/11/2013 10:00
Reported: 04/25/2013 14:39

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

SL547 SDG#: PH028-01

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13105SLA026	04/23/2013	06:32	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	13105SLA026	04/15/2013	14:00	David S Schrum	1
10592	19a PCBs and PCTs 8082A	SW-846 8082A	1	131050020A	04/20/2013	02:32	Jessica L Miller	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	131050020A	04/16/2013	05:50	Roman Kuropatkin	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	131060013A	04/19/2013	10:55	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	131060013A	04/16/2013	13:00	David S Schrum	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13102001	04/15/2013	16:11	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13102001	04/12/2013	10:00	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010C	1	131050637003	04/19/2013	17:36	Katlin N Cataldi	1
06944	Antimony	SW-846 6010C	1	131050637003	04/19/2013	17:36	Katlin N Cataldi	1
06935	Arsenic	SW-846 6010C	1	131050637003	04/19/2013	17:36	Katlin N Cataldi	1
06946	Barium	SW-846 6010C	1	131050637003	04/19/2013	17:36	Katlin N Cataldi	1
06947	Beryllium	SW-846 6010C	1	131050637003	04/19/2013	17:36	Katlin N Cataldi	1
07914	Boron	SW-846 6010C	1	131050637003	04/21/2013	14:45	Katlin N Cataldi	1
06949	Cadmium	SW-846 6010C	1	131050637003	04/19/2013	17:36	Katlin N Cataldi	1
01650	Calcium	SW-846 6010C	1	131050637003	04/19/2013	17:36	Katlin N Cataldi	1
06951	Chromium	SW-846 6010C	1	131050637003	04/19/2013	17:36	Katlin N Cataldi	1
06952	Cobalt	SW-846 6010C	1	131050637003	04/19/2013	17:36	Katlin N Cataldi	1
06953	Copper	SW-846 6010C	1	131050637003	04/19/2013	17:36	Katlin N Cataldi	1
01654	Iron	SW-846 6010C	1	131050637003	04/19/2013	17:36	Katlin N Cataldi	1
06955	Lead	SW-846 6010C	1	131050637003	04/19/2013	17:36	Katlin N Cataldi	1
01656	Lithium	SW-846 6010C	1	131050637003	04/19/2013	17:36	Katlin N Cataldi	1
01657	Magnesium	SW-846 6010C	1	131050637003	04/19/2013	17:36	Katlin N Cataldi	1
06958	Manganese	SW-846 6010C	1	131050637003	04/19/2013	17:36	Katlin N Cataldi	1
06960	Molybdenum	SW-846 6010C	1	131050637003	04/19/2013	17:36	Katlin N Cataldi	1
06961	Nickel	SW-846 6010C	1	131050637003	04/19/2013	17:36	Katlin N Cataldi	1
10145	Phosphorus	SW-846 6010C	1	131120637001	04/23/2013	05:20	Tara L Snyder	1
01662	Potassium	SW-846 6010C	1	131050637003	04/19/2013	17:36	Katlin N Cataldi	1
01667	Sodium	SW-846 6010C	1	131050637003	04/19/2013	17:36	Katlin N Cataldi	1
06969	Tin	SW-846 6010C	1	131050637003	04/19/2013	17:36	Katlin N Cataldi	1
06970	Titanium	SW-846 6010C	1	131050637003	04/19/2013	17:36	Katlin N Cataldi	1
06971	Vanadium	SW-846 6010C	1	131050637003	04/19/2013	17:36	Katlin N Cataldi	1
06972	Zinc	SW-846 6010C	1	131050637003	04/19/2013	17:36	Katlin N Cataldi	1
10146	Zirconium	SW-846 6010C	1	131050637003	04/19/2013	17:36	Katlin N Cataldi	1
06141	Selenium	SW-846 6020A	1	131050637003B	04/21/2013	00:16	David K Beck	2
06142	Silver	SW-846 6020A	1	131050637003A	04/21/2013	00:16	David K Beck	2
06144	Strontium	SW-846 6020A	1	131050637003A	04/21/2013	00:16	David K Beck	2
06145	Thallium	SW-846 6020A	1	131050637003A	04/21/2013	00:16	David K Beck	2

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

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Analysis Report

Sample Description: SL-547-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7018431
LLI Group # 1382144
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/09/2013 15:10 by SM

Submitted: 04/11/2013 10:00
Reported: 04/25/2013 14:39

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

SL547 SDG#: PH028-01

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00159	3a Mercury 7471A	SW-846 7471B	1	131060638003	04/18/2013 07:28	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	131050637003	04/17/2013 09:07	Denise K Conners	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	2	131120637001	04/22/2013 21:16	Annamaria Stipkovits	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	131060638003	04/17/2013 11:40	Denise K Conners	1
00394	15a pH by 9045C	SW-846 9045D modified	1	13101039401A	04/11/2013 19:40	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13106162401B	04/16/2013 21:43	Scott W Freisher	1

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

Sample Description: SL-552-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7018432
LLI Group # 1382144
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/10/2013 09:05 by SM

Submitted: 04/11/2013 10:00
Reported: 04/25/2013 14:39

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

SL552 SDG#: PH028-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.69	1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.34	1
12969	Anthracene	120-12-7	1.7	U	1.7	0.34	1
12969	Benzo(a)anthracene	56-55-3	1.3	J	1.7	0.69	1
12969	Benzo(a)pyrene	50-32-8	2.2		1.7	0.69	1
12969	Benzo(b)fluoranthene	205-99-2	3.7		1.7	0.69	1
12969	Benzo(e)pyrene	192-97-2	18	U	18	3.4	1
12969	Benzo(g,h,i)perylene	191-24-2	2.0		1.7	0.69	1
12969	Benzo(k)fluoranthene	207-08-9	1.7		1.7	0.69	1
12969	Butylbenzylphthalate	85-68-7	6.4	J	19	6.2	1
12969	Di-n-butylphthalate	84-74-2	19	U	19	6.2	1
12969	Chrysene	218-01-9	3.0		1.7	0.34	1
12969	Dibenz(a,h)anthracene	53-70-3	1.7	U	1.7	0.69	1
12969	Diethylphthalate	84-66-2	19	U	19	6.2	1
12969	Dimethylphthalate	131-11-3	19	U	19	6.2	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	29		19	6.2	1
12969	Fluoranthene	206-44-0	4.3		1.7	0.69	1
12969	Fluorene	86-73-7	1.7	U	1.7	0.69	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.3	J	1.7	0.69	1
12969	1-Methylnaphthalene	90-12-0	1.7	U	1.7	0.69	1
12969	2-Methylnaphthalene	91-57-6	1.7	U	1.7	0.69	1
12969	Naphthalene	91-20-3	1.7	U	1.7	0.69	1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.69	1
12969	Di-n-octylphthalate	117-84-0	19	U	19	6.2	1
12969	Phenanthrene	85-01-8	1.7	U	1.7	0.69	1
12969	Pyrene	129-00-0	3.7		1.7	0.69	1
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
10592	Aroclor 5432	63496-31-1	34	U	34	10	1
10592	Aroclor 5442	12642-23-8	34	U	34	10	1
10592	Aroclor 5460	11126-42-4	34	U	34	10	1
10592	PCB-1016	12674-11-2	17	U	17	3.4	1
10592	PCB-1221	11104-28-2	17	U	17	5.2	1
10592	PCB-1232	11141-16-5	17	U	17	4.2	1
10592	PCB-1242	53469-21-9	17	U	17	3.4	1
10592	PCB-1248	12672-29-6	17	U	17	3.4	1
10592	PCB-1254	11097-69-1	17	U	17	4.5	1
10592	PCB-1260	11096-82-5	17	U	17	4.0	1
10592	PCB-1262	37324-23-5	17	U	17	3.4	1
10592	PCB-1268	11100-14-4	17	U	17	3.4	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.2	U	5.2	2.1	1
12952	EFH (C15-C20)	n.a.	2.2	J	5.2	2.1	1
12952	EFH (C21-C30)	n.a.	4.6	J	5.2	2.1	1
12952	EFH (C30-C40)	n.a.	11		10	4.1	1
12952	EFH (C8-C11)	n.a.	5.2	U	5.2	2.1	1
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	

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

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Analysis Report

Sample Description: SL-552-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7018432
LLI Group # 1382144
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/10/2013 09:05 by SM

Submitted: 04/11/2013 10:00
Reported: 04/25/2013 14:39

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

SL552 SDG#: PH028-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	9,920		40.4	7.79	1
06944	Antimony	7440-36-0	4.04	U	4.04	0.505	1
06935	Arsenic	7440-38-2	3.35	J	4.04	0.334	1
06946	Barium	7440-39-3	67.9		1.01	0.0334	1
06947	Beryllium	7440-41-7	0.442	J	1.01	0.0677	1
07914	Boron	7440-42-8	10.1	U	10.1	0.839	1
06949	Cadmium	7440-43-9	0.111	J	1.01	0.0334	1
01650	Calcium	7440-70-2	3,470		20.2	4.06	1
06951	Chromium	7440-47-3	19.0		3.03	0.0889	1
06952	Cobalt	7440-48-4	4.27		1.01	0.0910	1
06953	Copper	7440-50-8	7.10		2.02	0.182	1
01654	Iron	7439-89-6	17,500		40.4	3.84	1
06955	Lead	7439-92-1	4.34		3.03	0.475	1
01656	Lithium	7439-93-2	26.9		4.0	0.56	1
01657	Magnesium	7439-95-4	4,960		10.1	1.75	1
06958	Manganese	7439-96-5	255		1.01	0.0839	1
06960	Molybdenum	7439-98-7	2.02	U	2.02	0.172	1
06961	Nickel	7440-02-0	10.0		2.02	0.111	1
10145	Phosphorus	7723-14-0	430		10.1	0.515	1
01662	Potassium	7440-09-7	2,950		101	13.6	1
01667	Sodium	7440-23-5	86.7	J	101	16.9	1
06969	Tin	7440-31-5	2.36	J	10.1	0.222	1
06970	Titanium	7440-32-6	1,000		1.01	0.172	1
06971	Vanadium	7440-62-2	33.7		1.01	0.111	1
06972	Zinc	7440-66-6	59.0		4.04	0.202	1
10146	Zirconium	7440-67-7	5.05	U	5.05	0.839	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.106	J	0.404	0.101	2
06142	Silver	7440-22-4	0.202	U	0.202	0.0202	2
06144	Strontium	7440-24-6	10.8		0.404	0.0344	2
06145	Thallium	7440-28-0	0.206		0.202	0.0303	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0202	U	0.0202	0.0104	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045C	n.a.	7.33		0.0100	0.0100	1
	The pH was measured in water at 21.2 C.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	3.0		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

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

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Analysis Report

Sample Description: SL-552-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7018432
LLI Group # 1382144
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/10/2013 09:05 by SM

Submitted: 04/11/2013 10:00
Reported: 04/25/2013 14:39

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

SL552 SDG#: PH028-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.991	U	0.991	0.0324	1
11031	12378-PeCDD	40321-76-4	0.228	JBQ	4.96	0.0341	1
11031	123478-HxCDD	39227-28-6	0.372	JBQ	4.96	0.0411	1
11031	123678-HxCDD	57653-85-7	0.860	J	4.96	0.0435	1
11031	123789-HxCDD	19408-74-3	0.787	JB	4.96	0.0412	1
11031	1234678-HpCDD	35822-46-9	21.7	B	4.96	0.0497	1
11031	OCDD	3268-87-9	228	B	9.91	0.0496	1
11031	2378-TCDF	51207-31-9	0.991	U	0.991	0.0368	1
11031	12378-PeCDF	57117-41-6	0.153	JB	4.96	0.0193	1
11031	23478-PeCDF	57117-31-4	0.138	JB	4.96	0.0215	1
11031	123478-HxCDF	70648-26-9	0.192	JB	4.96	0.0389	1
11031	123678-HxCDF	57117-44-9	0.262	JB	4.96	0.0320	1
11031	123789-HxCDF	72918-21-9	4.96	U	4.96	0.0478	1
11031	234678-HxCDF	60851-34-5	0.344	JB	4.96	0.0347	1
11031	1234678-HpCDF	67562-39-4	3.39	JB	4.96	0.0210	1
11031	1234789-HpCDF	55673-89-7	0.405	JB	4.96	0.0447	1
11031	OCDF	39001-02-0	6.59	JB	9.91	0.0603	1
Toxic Equivalents	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.616				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	70	25 - 164
13C12-12378-PeCDD	85	25 - 181
13C12-123478-HxCDD	79	32 - 141
13C12-123678-HxCDD	80	28 - 130
13C12-123789-HxCDD	78	28 - 130
13C12-1234678-HpCDD	78	23 - 140
13C12-OCDD	72	17 - 157
13C12-2378-TCDF	60	24 - 169
13C12-12378-PeCDF	85	24 - 185
13C12-23478-PeCDF	73	21 - 178
13C12-123478-HxCDF	69	26 - 152
13C12-123678-HxCDF	82	26 - 123
13C12-234678-HxCDF	71	28 - 136
13C12-123789-HxCDF	57	29 - 147
13C12-1234678-HpCDF	104	28 - 143
13C12-1234789-HpCDF	54	26 - 138
13C12-OCDF	49	17 - 157

Dioxins/Furans Data Qualifiers:

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

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

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Analysis Report

Sample Description: SL-552-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7018432
LLI Group # 1382144
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/10/2013 09:05 by SM

Submitted: 04/11/2013 10:00
Reported: 04/25/2013 14:39

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

SL552 SDG#: PH028-02

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

F *Interference is present*
S *Saturation of detection signal*

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

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Analysis Report

Sample Description: SL-552-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7018432
LLI Group # 1382144
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/10/2013 09:05 by SM

Submitted: 04/11/2013 10:00
Reported: 04/25/2013 14:39

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

SL552 SDG#: PH028-02

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13105SLA026	04/23/2013 07:00	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	13105SLA026	04/15/2013 14:00	David S Schrum	1
10592	19a PCBs and PCTs 8082A	SW-846 8082A	1	131050020A	04/20/2013 02:50	Jessica L Miller	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	131050020A	04/16/2013 05:50	Roman Kuropatkin	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	131060013A	04/19/2013 15:25	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	131060013A	04/16/2013 13:00	David S Schrum	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13102001	04/15/2013 17:08	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13102001	04/12/2013 10:00	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010C	1	131050637003	04/19/2013 17:40	Katlin N Cataldi	1
06944	Antimony	SW-846 6010C	1	131050637003	04/19/2013 17:40	Katlin N Cataldi	1
06935	Arsenic	SW-846 6010C	1	131050637003	04/19/2013 17:40	Katlin N Cataldi	1
06946	Barium	SW-846 6010C	1	131050637003	04/19/2013 17:40	Katlin N Cataldi	1
06947	Beryllium	SW-846 6010C	1	131050637003	04/19/2013 17:40	Katlin N Cataldi	1
07914	Boron	SW-846 6010C	3	131050637003	04/22/2013 14:40	Eric L Eby	1
06949	Cadmium	SW-846 6010C	1	131050637003	04/19/2013 17:40	Katlin N Cataldi	1
01650	Calcium	SW-846 6010C	1	131050637003	04/19/2013 17:40	Katlin N Cataldi	1
06951	Chromium	SW-846 6010C	1	131050637003	04/19/2013 17:40	Katlin N Cataldi	1
06952	Cobalt	SW-846 6010C	1	131050637003	04/19/2013 17:40	Katlin N Cataldi	1
06953	Copper	SW-846 6010C	1	131050637003	04/19/2013 17:40	Katlin N Cataldi	1
01654	Iron	SW-846 6010C	1	131050637003	04/19/2013 17:40	Katlin N Cataldi	1
06955	Lead	SW-846 6010C	1	131050637003	04/19/2013 17:40	Katlin N Cataldi	1
01656	Lithium	SW-846 6010C	1	131050637003	04/19/2013 17:40	Katlin N Cataldi	1
01657	Magnesium	SW-846 6010C	1	131050637003	04/19/2013 17:40	Katlin N Cataldi	1
06958	Manganese	SW-846 6010C	1	131050637003	04/19/2013 17:40	Katlin N Cataldi	1
06960	Molybdenum	SW-846 6010C	1	131050637003	04/19/2013 17:40	Katlin N Cataldi	1
06961	Nickel	SW-846 6010C	1	131050637003	04/19/2013 17:40	Katlin N Cataldi	1
10145	Phosphorus	SW-846 6010C	1	131050637003	04/19/2013 17:40	Katlin N Cataldi	1
01662	Potassium	SW-846 6010C	1	131050637003	04/19/2013 17:40	Katlin N Cataldi	1
01667	Sodium	SW-846 6010C	1	131050637003	04/19/2013 17:40	Katlin N Cataldi	1
06969	Tin	SW-846 6010C	1	131050637003	04/19/2013 17:40	Katlin N Cataldi	1
06970	Titanium	SW-846 6010C	1	131050637003	04/19/2013 17:40	Katlin N Cataldi	1
06971	Vanadium	SW-846 6010C	1	131050637003	04/19/2013 17:40	Katlin N Cataldi	1
06972	Zinc	SW-846 6010C	1	131050637003	04/19/2013 17:40	Katlin N Cataldi	1
10146	Zirconium	SW-846 6010C	1	131050637003	04/19/2013 17:40	Katlin N Cataldi	1
06141	Selenium	SW-846 6020A	1	131050637003B	04/21/2013 00:19	David K Beck	2
06142	Silver	SW-846 6020A	1	131050637003A	04/21/2013 00:19	David K Beck	2
06144	Strontium	SW-846 6020A	1	131050637003A	04/21/2013 00:19	David K Beck	2
06145	Thallium	SW-846 6020A	1	131050637003A	04/21/2013 00:19	David K Beck	2

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

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Analysis Report

Sample Description: SL-552-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7018432
LLI Group # 1382144
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/10/2013 09:05 by SM

Submitted: 04/11/2013 10:00
Reported: 04/25/2013 14:39

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

SL552 SDG#: PH028-02

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00159	3a Mercury 7471A	SW-846 7471B	1	131060638003	04/18/2013 07:30	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	131050637003	04/17/2013 09:07	Denise K Conners	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	131060638003	04/17/2013 11:40	Denise K Conners	1
00394	15a pH by 9045C	SW-846 9045D modified	1	13101039401A	04/11/2013 19:40	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13106162401B	04/16/2013 21:43	Scott W Freisher	1

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

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Analysis Report

Sample Description: SL-551-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7018433
LLI Group # 1382144
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/10/2013 09:55 by SM

Submitted: 04/11/2013 10:00
Reported: 04/25/2013 14:39

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

SL551 SDG#: PH028-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.69	1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.34	1
12969	Anthracene	120-12-7	0.47	J	1.7	0.34	1
12969	Benzo(a)anthracene	56-55-3	1.9		1.7	0.69	1
12969	Benzo(a)pyrene	50-32-8	2.8		1.7	0.69	1
12969	Benzo(b)fluoranthene	205-99-2	5.0		1.7	0.69	1
12969	Benzo(e)pyrene	192-97-2	18	U	18	3.4	1
12969	Benzo(g,h,i)perylene	191-24-2	2.3		1.7	0.69	1
12969	Benzo(k)fluoranthene	207-08-9	1.9		1.7	0.69	1
12969	Butylbenzylphthalate	85-68-7	19	U	19	6.2	1
12969	Di-n-butylphthalate	84-74-2	19	U	19	6.2	1
12969	Chrysene	218-01-9	4.3		1.7	0.34	1
12969	Dibenz(a,h)anthracene	53-70-3	1.7	U	1.7	0.69	1
12969	Diethylphthalate	84-66-2	19	U	19	6.2	1
12969	Dimethylphthalate	131-11-3	19	U	19	6.2	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	9.0	J	19	6.2	1
12969	Fluoranthene	206-44-0	6.8		1.7	0.69	1
12969	Fluorene	86-73-7	1.7	U	1.7	0.69	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.6	J	1.7	0.69	1
12969	1-Methylnaphthalene	90-12-0	1.0	J	1.7	0.69	1
12969	2-Methylnaphthalene	91-57-6	1.7		1.7	0.69	1
12969	Naphthalene	91-20-3	2.5		1.7	0.69	1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.69	1
12969	Di-n-octylphthalate	117-84-0	19	U	19	6.2	1
12969	Phenanthrene	85-01-8	5.0		1.7	0.69	1
12969	Pyrene	129-00-0	6.2		1.7	0.69	1
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
10592	Aroclor 5432	63496-31-1	34	U	34	10	1
10592	Aroclor 5442	12642-23-8	34	U	34	10	1
10592	Aroclor 5460	11126-42-4	34	U	34	10	1
10592	PCB-1016	12674-11-2	17	U	17	3.4	1
10592	PCB-1221	11104-28-2	17	U	17	5.2	1
10592	PCB-1232	11141-16-5	17	U	17	4.2	1
10592	PCB-1242	53469-21-9	17	U	17	3.4	1
10592	PCB-1248	12672-29-6	17	U	17	3.4	1
10592	PCB-1254	11097-69-1	17	U	17	4.5	1
10592	PCB-1260	11096-82-5	17	U	17	4.0	1
10592	PCB-1262	37324-23-5	17	U	17	3.4	1
10592	PCB-1268	11100-14-4	17	U	17	3.4	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.2	U	5.2	2.1	1
12952	EFH (C15-C20)	n.a.	5.2	U	5.2	2.1	1
12952	EFH (C21-C30)	n.a.	13		5.2	2.1	1
12952	EFH (C30-C40)	n.a.	29		10	4.1	1
12952	EFH (C8-C11)	n.a.	5.2	U	5.2	2.1	1
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	

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

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Analysis Report

Sample Description: SL-551-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7018433
LLI Group # 1382144
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/10/2013 09:55 by SM

Submitted: 04/11/2013 10:00
Reported: 04/25/2013 14:39

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

SL551 SDG#: PH028-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	12,000		40.5	7.81	1
06944	Antimony	7440-36-0	4.05	U	4.05	0.506	1
06935	Arsenic	7440-38-2	4.03	J	4.05	0.334	1
06946	Barium	7440-39-3	77.6		1.01	0.0334	1
06947	Beryllium	7440-41-7	0.509	J	1.01	0.0679	1
07914	Boron	7440-42-8	10.1	U	10.1	0.841	1
06949	Cadmium	7440-43-9	0.164	J	1.01	0.0334	1
01650	Calcium	7440-70-2	2,720		20.3	4.07	1
06951	Chromium	7440-47-3	13.9		3.04	0.0891	1
06952	Cobalt	7440-48-4	3.73		1.01	0.0912	1
06953	Copper	7440-50-8	6.20		2.03	0.182	1
01654	Iron	7439-89-6	18,600		40.5	3.85	1
06955	Lead	7439-92-1	7.10		3.04	0.476	1
01656	Lithium	7439-93-2	23.9		4.1	0.56	1
01657	Magnesium	7439-95-4	4,090		10.1	1.75	1
06958	Manganese	7439-96-5	251		1.01	0.0841	1
06960	Molybdenum	7439-98-7	2.03	U	2.03	0.172	1
06961	Nickel	7440-02-0	8.20		2.03	0.111	1
10145	Phosphorus	7723-14-0	405		10.1	0.517	1
01662	Potassium	7440-09-7	3,880		101	13.7	1
01667	Sodium	7440-23-5	65.0	J	101	16.9	1
06969	Tin	7440-31-5	2.56	J	10.1	0.223	1
06970	Titanium	7440-32-6	982		1.01	0.172	1
06971	Vanadium	7440-62-2	28.6		1.01	0.111	1
06972	Zinc	7440-66-6	72.3		4.05	0.203	1
10146	Zirconium	7440-67-7	5.06	U	5.06	0.841	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.405	U	0.405	0.101	2
06142	Silver	7440-22-4	0.0411	J	0.203	0.0203	2
06144	Strontium	7440-24-6	12.3		0.405	0.0344	2
06145	Thallium	7440-28-0	0.253		0.203	0.0304	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0110	J	0.0196	0.0101	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045C	n.a.	7.74		0.0100	0.0100	1
	The pH was measured in water at 21.5 C.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	3.2		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

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

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Analysis Report

Sample Description: SL-551-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7018433
LLI Group # 1382144
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/10/2013 09:55 by SM

Submitted: 04/11/2013 10:00
Reported: 04/25/2013 14:39

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

SL551 SDG#: PH028-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0747	JQ	1.03	0.0330	1
11031	12378-PeCDD	40321-76-4	0.244	JBQ	5.14	0.0360	1
11031	123478-HxCDD	39227-28-6	0.417	JB	5.14	0.0358	1
11031	123678-HxCDD	57653-85-7	1.12	JQ	5.14	0.0369	1
11031	123789-HxCDD	19408-74-3	0.704	JB	5.14	0.0361	1
11031	1234678-HpCDD	35822-46-9	30.9	B	5.14	0.0408	1
11031	OCDD	3268-87-9	327	B	10.3	0.0475	1
11031	2378-TCDF	51207-31-9	0.153	JQ	1.03	0.0414	1
11031	12378-PeCDF	57117-41-6	0.177	JB	5.14	0.0212	1
11031	23478-PeCDF	57117-31-4	0.186	JB	5.14	0.0244	1
11031	123478-HxCDF	70648-26-9	0.300	JB	5.14	0.0351	1
11031	123678-HxCDF	57117-44-9	0.276	JB	5.14	0.0272	1
11031	123789-HxCDF	72918-21-9	0.123	JBQ	5.14	0.0468	1
11031	234678-HxCDF	60851-34-5	0.401	JB	5.14	0.0318	1
11031	1234678-HpCDF	67562-39-4	3.99	JB	5.14	0.0194	1
11031	1234789-HpCDF	55673-89-7	0.574	JB	5.14	0.0472	1
11031	OCDF	39001-02-0	8.50	JB	10.3	0.0507	1
Toxic Equivalents	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.726				1

Labeled Compounds	**%Rec**	**Windows**
13C12-2378-TCDD	72	25 - 164
13C12-12378-PeCDD	85	25 - 181
13C12-123478-HxCDD	79	32 - 141
13C12-123678-HxCDD	81	28 - 130
13C12-123789-HxCDD	81	28 - 130
13C12-1234678-HpCDD	76	23 - 140
13C12-OCDD	70	17 - 157
13C12-2378-TCDF	63	24 - 169
13C12-12378-PeCDF	89	24 - 185
13C12-23478-PeCDF	74	21 - 178
13C12-123478-HxCDF	69	26 - 152
13C12-123678-HxCDF	84	26 - 123
13C12-234678-HxCDF	71	28 - 136
13C12-123789-HxCDF	54	29 - 147
13C12-1234678-HpCDF	103	28 - 143
13C12-1234789-HpCDF	51	26 - 138
13C12-OCDF	46	17 - 157

Dioxins/Furans Data Qualifiers:

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

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

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Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: SL-551-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7018433
LLI Group # 1382144
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/10/2013 09:55 by SM

Submitted: 04/11/2013 10:00
Reported: 04/25/2013 14:39

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

SL551 SDG#: PH028-03

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

F *Interference is present*
S *Saturation of detection signal*

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

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Analysis Report

Sample Description: SL-551-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7018433
LLI Group # 1382144
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/10/2013 09:55 by SM

Submitted: 04/11/2013 10:00
Reported: 04/25/2013 14:39

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

SL551 SDG#: PH028-03

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13105SLA026	04/23/2013	07:30	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	13105SLA026	04/15/2013	14:00	David S Schrum	1
10592	19a PCBs and PCTs 8082A	SW-846 8082A	1	131050020A	04/20/2013	03:09	Jessica L Miller	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	131050020A	04/16/2013	05:50	Roman Kuropatkin	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	131060013A	04/19/2013	15:45	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	131060013A	04/16/2013	13:00	David S Schrum	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13102001	04/15/2013	18:05	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13102001	04/12/2013	10:00	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010C	1	131050637003	04/19/2013	17:44	Katlin N Cataldi	1
06944	Antimony	SW-846 6010C	1	131050637003	04/19/2013	17:44	Katlin N Cataldi	1
06935	Arsenic	SW-846 6010C	1	131050637003	04/19/2013	17:44	Katlin N Cataldi	1
06946	Barium	SW-846 6010C	1	131050637003	04/19/2013	17:44	Katlin N Cataldi	1
06947	Beryllium	SW-846 6010C	1	131050637003	04/19/2013	17:44	Katlin N Cataldi	1
07914	Boron	SW-846 6010C	3	131050637003	04/22/2013	14:52	Eric L Eby	1
06949	Cadmium	SW-846 6010C	1	131050637003	04/19/2013	17:44	Katlin N Cataldi	1
01650	Calcium	SW-846 6010C	1	131050637003	04/19/2013	17:44	Katlin N Cataldi	1
06951	Chromium	SW-846 6010C	1	131050637003	04/19/2013	17:44	Katlin N Cataldi	1
06952	Cobalt	SW-846 6010C	1	131050637003	04/19/2013	17:44	Katlin N Cataldi	1
06953	Copper	SW-846 6010C	1	131050637003	04/19/2013	17:44	Katlin N Cataldi	1
01654	Iron	SW-846 6010C	1	131050637003	04/19/2013	17:44	Katlin N Cataldi	1
06955	Lead	SW-846 6010C	1	131050637003	04/19/2013	17:44	Katlin N Cataldi	1
01656	Lithium	SW-846 6010C	1	131050637003	04/19/2013	17:44	Katlin N Cataldi	1
01657	Magnesium	SW-846 6010C	1	131050637003	04/19/2013	17:44	Katlin N Cataldi	1
06958	Manganese	SW-846 6010C	1	131050637003	04/19/2013	17:44	Katlin N Cataldi	1
06960	Molybdenum	SW-846 6010C	1	131050637003	04/19/2013	17:44	Katlin N Cataldi	1
06961	Nickel	SW-846 6010C	1	131050637003	04/19/2013	17:44	Katlin N Cataldi	1
10145	Phosphorus	SW-846 6010C	1	131050637003	04/19/2013	17:44	Katlin N Cataldi	1
01662	Potassium	SW-846 6010C	1	131050637003	04/19/2013	17:44	Katlin N Cataldi	1
01667	Sodium	SW-846 6010C	1	131050637003	04/19/2013	17:44	Katlin N Cataldi	1
06969	Tin	SW-846 6010C	1	131050637003	04/19/2013	17:44	Katlin N Cataldi	1
06970	Titanium	SW-846 6010C	1	131050637003	04/19/2013	17:44	Katlin N Cataldi	1
06971	Vanadium	SW-846 6010C	1	131050637003	04/19/2013	17:44	Katlin N Cataldi	1
06972	Zinc	SW-846 6010C	1	131050637003	04/19/2013	17:44	Katlin N Cataldi	1
10146	Zirconium	SW-846 6010C	1	131050637003	04/19/2013	17:44	Katlin N Cataldi	1
06141	Selenium	SW-846 6020A	1	131050637003B	04/21/2013	00:21	David K Beck	2
06142	Silver	SW-846 6020A	1	131050637003A	04/21/2013	00:21	David K Beck	2
06144	Strontium	SW-846 6020A	1	131050637003A	04/21/2013	00:21	David K Beck	2
06145	Thallium	SW-846 6020A	1	131050637003A	04/21/2013	00:21	David K Beck	2

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

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Analysis Report

Sample Description: SL-551-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7018433
LLI Group # 1382144
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/10/2013 09:55 by SM

Submitted: 04/11/2013 10:00
Reported: 04/25/2013 14:39

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

SL551 SDG#: PH028-03

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00159	3a Mercury 7471A	SW-846 7471B	1	131060638003	04/18/2013 07:33	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	131050637003	04/17/2013 09:07	Denise K Conners	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	131060638003	04/17/2013 11:40	Denise K Conners	1
00394	15a pH by 9045C	SW-846 9045D modified	1	13101039401A	04/11/2013 19:40	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13106162401B	04/16/2013 21:43	Scott W Freisher	1

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

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Analysis Report

Sample Description: SL-551-SA7-SB-2.0-3.0 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7018434
LLI Group # 1382144
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/10/2013 11:00 by SM

Submitted: 04/11/2013 10:00
Reported: 04/25/2013 14:39

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

S5512 SDG#: PH028-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.69	1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.35	1
12969	Anthracene	120-12-7	1.7	U	1.7	0.35	1
12969	Benzo(a)anthracene	56-55-3	1.7	U	1.7	0.69	1
12969	Benzo(a)pyrene	50-32-8	1.7	U	1.7	0.69	1
12969	Benzo(b)fluoranthene	205-99-2	1.7	U	1.7	0.69	1
12969	Benzo(e)pyrene	192-97-2	18	U	18	3.5	1
12969	Benzo(g,h,i)perylene	191-24-2	1.7	U	1.7	0.69	1
12969	Benzo(k)fluoranthene	207-08-9	1.7	U	1.7	0.69	1
12969	Butylbenzylphthalate	85-68-7	19	U	19	6.2	1
12969	Di-n-butylphthalate	84-74-2	19	U	19	6.2	1
12969	Chrysene	218-01-9	0.76	J	1.7	0.35	1
12969	Dibenz(a,h)anthracene	53-70-3	1.7	U	1.7	0.69	1
12969	Diethylphthalate	84-66-2	19	U	19	6.2	1
12969	Dimethylphthalate	131-11-3	19	U	19	6.2	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	19	U	19	6.2	1
12969	Fluoranthene	206-44-0	0.72	J	1.7	0.69	1
12969	Fluorene	86-73-7	1.7	U	1.7	0.69	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.7	U	1.7	0.69	1
12969	1-Methylnaphthalene	90-12-0	1.7	U	1.7	0.69	1
12969	2-Methylnaphthalene	91-57-6	1.7	U	1.7	0.69	1
12969	Naphthalene	91-20-3	1.7	U	1.7	0.69	1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.69	1
12969	Di-n-octylphthalate	117-84-0	19	U	19	6.2	1
12969	Phenanthrene	85-01-8	1.7	U	1.7	0.69	1
12969	Pyrene	129-00-0	0.74	J	1.7	0.69	1
GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	1.1	U	1.1	0.2	25.56
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
10592	Aroclor 5432	63496-31-1	34	U	34	10	1
10592	Aroclor 5442	12642-23-8	34	U	34	10	1
10592	Aroclor 5460	11126-42-4	34	U	34	10	1
10592	PCB-1016	12674-11-2	18	U	18	3.4	1
10592	PCB-1221	11104-28-2	18	U	18	5.3	1
10592	PCB-1232	11141-16-5	18	U	18	4.2	1
10592	PCB-1242	53469-21-9	18	U	18	3.4	1
10592	PCB-1248	12672-29-6	18	U	18	3.4	1
10592	PCB-1254	11097-69-1	18	U	18	4.5	1
10592	PCB-1260	11096-82-5	18	U	18	4.0	1
10592	PCB-1262	37324-23-5	18	U	18	3.4	1
10592	PCB-1268	11100-14-4	18	U	18	3.4	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.2	U	5.2	2.1	1
12952	EFH (C15-C20)	n.a.	2.3	J	5.2	2.1	1

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

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Analysis Report

Sample Description: SL-551-SA7-SB-2.0-3.0 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7018434
LLI Group # 1382144
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/10/2013 11:00 by SM

Submitted: 04/11/2013 10:00
Reported: 04/25/2013 14:39

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

S5512 SDG#: PH028-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C21-C30)	n.a.	15		5.2	2.1	1
12952	EFH (C30-C40)	n.a.	48		10	4.2	1
12952	EFH (C8-C11)	n.a.	5.2	U	5.2	2.1	1
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	11,300		41.6	8.01	1
06944	Antimony	7440-36-0	4.16	U	4.16	0.520	1
06935	Arsenic	7440-38-2	4.02	J	4.16	0.343	1
06946	Barium	7440-39-3	77.4		1.04	0.0343	1
06947	Beryllium	7440-41-7	0.467	J	1.04	0.0696	1
07914	Boron	7440-42-8	10.4	U	10.4	0.863	1
06949	Cadmium	7440-43-9	0.142	J	1.04	0.0343	1
01650	Calcium	7440-70-2	4,750		20.8	4.18	1
06951	Chromium	7440-47-3	15.6		3.12	0.0915	1
06952	Cobalt	7440-48-4	4.09		1.04	0.0936	1
06953	Copper	7440-50-8	5.44		2.08	0.187	1
01654	Iron	7439-89-6	18,100		41.6	3.95	1
06955	Lead	7439-92-1	4.81		3.12	0.489	1
01656	Lithium	7439-93-2	26.1		4.2	0.57	1
01657	Magnesium	7439-95-4	4,490		10.4	1.80	1
06958	Manganese	7439-96-5	283		1.04	0.0863	1
06960	Molybdenum	7439-98-7	2.08	U	2.08	0.177	1
06961	Nickel	7440-02-0	8.96		2.08	0.114	1
10145	Phosphorus	7723-14-0	366		10.4	0.530	1
01662	Potassium	7440-09-7	3,280		104	14.0	1
01667	Sodium	7440-23-5	62.5	J	104	17.4	1
06969	Tin	7440-31-5	2.59	J	10.4	0.229	1
06970	Titanium	7440-32-6	1,040		1.04	0.177	1
06971	Vanadium	7440-62-2	30.4		1.04	0.114	1
06972	Zinc	7440-66-6	55.2		4.16	0.208	1
10146	Zirconium	7440-67-7	5.20	U	5.20	0.863	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.416	U	0.416	0.104	2
06142	Silver	7440-22-4	0.208	U	0.208	0.0208	2
06144	Strontium	7440-24-6	11.3		0.416	0.0353	2
06145	Thallium	7440-28-0	0.209		0.208	0.0312	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0203	U	0.0203	0.0105	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045C	n.a.	7.45		0.0100	0.0100	1
	The pH was measured in water at 21.3 C.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	3.8		0.10	0.10	1

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

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Analysis Report

Sample Description: SL-551-SA7-SB-2.0-3.0 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7018434
LLI Group # 1382144
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/10/2013 11:00 by SM

Submitted: 04/11/2013 10:00
Reported: 04/25/2013 14:39

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

S5512 SDG#: PH028-04

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

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

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

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Analysis Report

Sample Description: SL-551-SA7-SB-2.0-3.0 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7018434
LLI Group # 1382144
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/10/2013 11:00 by SM

Submitted: 04/11/2013 10:00
Reported: 04/25/2013 14:39

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

S5512 SDG#: PH028-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	1.01	U	1.01	0.0315	1
11031	12378-PeCDD	40321-76-4	0.102	JBQ	5.03	0.0317	1
11031	123478-HxCDD	39227-28-6	0.161	JBQ	5.03	0.0319	1
11031	123678-HxCDD	57653-85-7	0.472	J	5.03	0.0332	1
11031	123789-HxCDD	19408-74-3	0.360	JB	5.03	0.0316	1
11031	1234678-HpCDD	35822-46-9	13.0	B	5.03	0.0352	1
11031	OCDD	3268-87-9	169	B	10.1	0.0328	1
11031	2378-TCDF	51207-31-9	0.0596	JQ	1.01	0.0370	1
11031	12378-PeCDF	57117-41-6	0.143	JBQ	5.03	0.0175	1
11031	23478-PeCDF	57117-31-4	0.0893	JBQ	5.03	0.0192	1
11031	123478-HxCDF	70648-26-9	0.203	JB	5.03	0.0313	1
11031	123678-HxCDF	57117-44-9	0.182	JB	5.03	0.0249	1
11031	123789-HxCDF	72918-21-9	0.106	JBQ	5.03	0.0412	1
11031	234678-HxCDF	60851-34-5	0.238	JB	5.03	0.0283	1
11031	1234678-HpCDF	67562-39-4	2.24	JB	5.03	0.0122	1
11031	1234789-HpCDF	55673-89-7	0.298	JB	5.03	0.0272	1
11031	OCDF	39001-02-0	5.49	JB	10.1	0.0452	1
Toxic Equivalents	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.353				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	63	25 - 164
13C12-12378-PeCDD	80	25 - 181
13C12-123478-HxCDD	77	32 - 141
13C12-123678-HxCDD	79	28 - 130
13C12-123789-HxCDD	78	28 - 130
13C12-1234678-HpCDD	76	23 - 140
13C12-OCDD	69	17 - 157
13C12-2378-TCDF	55	24 - 169
13C12-12378-PeCDF	80	24 - 185
13C12-23478-PeCDF	69	21 - 178
13C12-123478-HxCDF	68	26 - 152
13C12-123678-HxCDF	82	26 - 123
13C12-234678-HxCDF	71	28 - 136
13C12-123789-HxCDF	55	29 - 147
13C12-1234678-HpCDF	103	28 - 143
13C12-1234789-HpCDF	54	26 - 138
13C12-OCDF	47	17 - 157

Dioxins/Furans Data Qualifiers:

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

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

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Analysis Report

Sample Description: SL-551-SA7-SB-2.0-3.0 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7018434
LLI Group # 1382144
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/10/2013 11:00 by SM

Submitted: 04/11/2013 10:00
Reported: 04/25/2013 14:39

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

S5512 SDG#: PH028-04

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

F *Interference is present*
S *Saturation of detection signal*

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

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Analysis Report

Sample Description: SL-551-SA7-SB-2.0-3.0 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7018434
LLI Group # 1382144
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/10/2013 11:00 by SM

Submitted: 04/11/2013 10:00
Reported: 04/25/2013 14:39

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

S5512 SDG#: PH028-04

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13105SLA026	04/23/2013	07:59	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	13105SLA026	04/15/2013	14:00	David S Schrum	1
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	13106A16A	04/16/2013	17:34	Laura M Krieger	25.56
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201310130716	04/11/2013	19:40	Mitchell R Washel	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201310130716	04/11/2013	19:41	Mitchell R Washel	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	3	201310130716	04/11/2013	19:42	Mitchell R Washel	n.a.
10592	19a PCBs and PCTs 8082A	SW-846 8082A	1	131050020A	04/20/2013	03:27	Jessica L Miller	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	131050020A	04/16/2013	05:50	Roman Kuropatkin	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	131060013A	04/19/2013	16:48	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	131060013A	04/16/2013	13:00	David S Schrum	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13102001	04/15/2013	19:01	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13102001	04/12/2013	10:00	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010C	1	131050637003	04/19/2013	17:47	Katlin N Cataldi	1
06944	Antimony	SW-846 6010C	1	131050637003	04/19/2013	17:47	Katlin N Cataldi	1
06935	Arsenic	SW-846 6010C	1	131050637003	04/19/2013	17:47	Katlin N Cataldi	1
06946	Barium	SW-846 6010C	1	131050637003	04/19/2013	17:47	Katlin N Cataldi	1
06947	Beryllium	SW-846 6010C	1	131050637003	04/19/2013	17:47	Katlin N Cataldi	1
07914	Boron	SW-846 6010C	3	131050637003	04/22/2013	14:56	Eric L Eby	1
06949	Cadmium	SW-846 6010C	1	131050637003	04/19/2013	17:47	Katlin N Cataldi	1
01650	Calcium	SW-846 6010C	1	131050637003	04/19/2013	17:47	Katlin N Cataldi	1
06951	Chromium	SW-846 6010C	1	131050637003	04/19/2013	17:47	Katlin N Cataldi	1
06952	Cobalt	SW-846 6010C	1	131050637003	04/19/2013	17:47	Katlin N Cataldi	1
06953	Copper	SW-846 6010C	1	131050637003	04/19/2013	17:47	Katlin N Cataldi	1
01654	Iron	SW-846 6010C	1	131050637003	04/19/2013	17:47	Katlin N Cataldi	1
06955	Lead	SW-846 6010C	1	131050637003	04/19/2013	17:47	Katlin N Cataldi	1
01656	Lithium	SW-846 6010C	1	131050637003	04/19/2013	17:47	Katlin N Cataldi	1
01657	Magnesium	SW-846 6010C	1	131050637003	04/19/2013	17:47	Katlin N Cataldi	1
06958	Manganese	SW-846 6010C	1	131050637003	04/19/2013	17:47	Katlin N Cataldi	1
06960	Molybdenum	SW-846 6010C	1	131050637003	04/19/2013	17:47	Katlin N Cataldi	1
06961	Nickel	SW-846 6010C	1	131050637003	04/19/2013	17:47	Katlin N Cataldi	1
10145	Phosphorus	SW-846 6010C	1	131050637003	04/19/2013	17:47	Katlin N Cataldi	1
01662	Potassium	SW-846 6010C	1	131050637003	04/19/2013	17:47	Katlin N Cataldi	1
01667	Sodium	SW-846 6010C	1	131050637003	04/19/2013	17:47	Katlin N Cataldi	1
06969	Tin	SW-846 6010C	1	131050637003	04/19/2013	17:47	Katlin N Cataldi	1
06970	Titanium	SW-846 6010C	1	131050637003	04/19/2013	17:47	Katlin N Cataldi	1
06971	Vanadium	SW-846 6010C	1	131050637003	04/19/2013	17:47	Katlin N Cataldi	1
06972	Zinc	SW-846 6010C	1	131050637003	04/19/2013	17:47	Katlin N Cataldi	1

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

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Analysis Report

Sample Description: SL-551-SA7-SB-2.0-3.0 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7018434
LLI Group # 1382144
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/10/2013 11:00 by SM

Submitted: 04/11/2013 10:00
Reported: 04/25/2013 14:39

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

S5512 SDG#: PH028-04

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10146	Zirconium	SW-846 6010C	1	131050637003	04/19/2013 17:47	Katlin N Cataldi	1
06141	Selenium	SW-846 6020A	1	131050637003B	04/21/2013 00:23	David K Beck	2
06142	Silver	SW-846 6020A	1	131050637003A	04/21/2013 00:23	David K Beck	2
06144	Strontium	SW-846 6020A	1	131050637003A	04/21/2013 00:23	David K Beck	2
06145	Thallium	SW-846 6020A	1	131050637003A	04/21/2013 00:23	David K Beck	2
00159	3a Mercury 7471A	SW-846 7471B	1	131060638003	04/18/2013 07:35	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	131050637003	04/17/2013 09:07	Denise K Conners	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	131060638003	04/17/2013 11:40	Denise K Conners	1
00394	15a pH by 9045C	SW-846 9045D modified	1	13101039401A	04/11/2013 19:40	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13106162401B	04/16/2013 21:43	Scott W Freisher	1

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

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Analysis Report

Sample Description: TB-041013 Water
SSFL Phase 3 Subarea 7

LLI Sample # WW 7018435
LLI Group # 1382144
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/10/2013 08:00

Submitted: 04/11/2013 10:00
Reported: 04/25/2013 14:39

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

SLTB1 SDG#: PH028-05TB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC Volatiles	**TPH GRO SW-8015B**		ug/l		ug/l	ug/l	
08229	TPH-GRO S.CA water C5-C12	n.a.	50	U	50	20	1

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08229	11b TPH by EPA 8015B GRO	TPH GRO SW-8015B	1	13106A20A	04/16/2013 11:24	Catherine J Schwarz	1
01146	GC VOA Water Prep	SW-846 5030B	1	13106A20A	04/16/2013 11:24	Catherine J Schwarz	1

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

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Analysis Report

Sample Description: SL-548-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7018436
LLI Group # 1382144
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/10/2013 13:50 by SM

Submitted: 04/11/2013 10:00
Reported: 04/25/2013 14:39

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

SL548 SDG#: PH028-06

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.68	1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.34	1
12969	Anthracene	120-12-7	0.35	J	1.7	0.34	1
12969	Benzo(a)anthracene	56-55-3	1.2	J	1.7	0.68	1
12969	Benzo(a)pyrene	50-32-8	1.5	J	1.7	0.68	1
12969	Benzo(b)fluoranthene	205-99-2	3.0		1.7	0.68	1
12969	Benzo(e)pyrene	192-97-2	17	U	17	3.4	1
12969	Benzo(g,h,i)perylene	191-24-2	1.3	J	1.7	0.68	1
12969	Benzo(k)fluoranthene	207-08-9	1.2	J	1.7	0.68	1
12969	Butylbenzylphthalate	85-68-7	18	U	18	6.1	1
12969	Di-n-butylphthalate	84-74-2	18	U	18	6.1	1
12969	Chrysene	218-01-9	2.8		1.7	0.34	1
12969	Dibenz(a,h)anthracene	53-70-3	1.7	U	1.7	0.68	1
12969	Diethylphthalate	84-66-2	18	U	18	6.1	1
12969	Dimethylphthalate	131-11-3	18	U	18	6.1	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	18	U	18	6.1	1
12969	Fluoranthene	206-44-0	4.0		1.7	0.68	1
12969	Fluorene	86-73-7	1.7	U	1.7	0.68	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.0	J	1.7	0.68	1
12969	1-Methylnaphthalene	90-12-0	0.94	J	1.7	0.68	1
12969	2-Methylnaphthalene	91-57-6	1.6	J	1.7	0.68	1
12969	Naphthalene	91-20-3	2.6		1.7	0.68	1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.68	1
12969	Di-n-octylphthalate	117-84-0	18	U	18	6.1	1
12969	Phenanthrene	85-01-8	3.3		1.7	0.68	1
12969	Pyrene	129-00-0	3.9		1.7	0.68	1
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
10592	Aroclor 5432	63496-31-1	34	U	34	10	1
10592	Aroclor 5442	12642-23-8	34	U	34	10	1
10592	Aroclor 5460	11126-42-4	34	U	34	10	1
10592	PCB-1016	12674-11-2	17	U	17	3.4	1
10592	PCB-1221	11104-28-2	17	U	17	5.2	1
10592	PCB-1232	11141-16-5	17	U	17	4.2	1
10592	PCB-1242	53469-21-9	17	U	17	3.4	1
10592	PCB-1248	12672-29-6	17	U	17	3.4	1
10592	PCB-1254	11097-69-1	17	U	17	4.5	1
10592	PCB-1260	11096-82-5	17	U	17	4.0	1
10592	PCB-1262	37324-23-5	17	U	17	3.4	1
10592	PCB-1268	11100-14-4	17	U	17	3.4	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.1	U	5.1	2.0	1
12952	EFH (C15-C20)	n.a.	2.2	J	5.1	2.0	1
12952	EFH (C21-C30)	n.a.	16		5.1	2.0	1
12952	EFH (C30-C40)	n.a.	39		10	4.1	1
12952	EFH (C8-C11)	n.a.	5.1	U	5.1	2.0	1
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	

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

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Analysis Report

Sample Description: SL-548-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7018436
LLI Group # 1382144
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/10/2013 13:50 by SM

Submitted: 04/11/2013 10:00
Reported: 04/25/2013 14:39

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

SL548 SDG#: PH028-06

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	9,600		39.9	7.68	1
06944	Antimony	7440-36-0	1.41	J	3.99	0.498	1
06935	Arsenic	7440-38-2	1.72	J	3.99	0.329	1
06946	Barium	7440-39-3	71.2		0.996	0.0329	1
06947	Beryllium	7440-41-7	0.408	J	0.996	0.0668	1
07914	Boron	7440-42-8	4.15	J	9.96	0.827	1
06949	Cadmium	7440-43-9	0.448	J	0.996	0.0329	1
01650	Calcium	7440-70-2	2,230		19.9	4.01	1
06951	Chromium	7440-47-3	12.0		2.99	0.0877	1
06952	Cobalt	7440-48-4	4.53		0.996	0.0897	1
06953	Copper	7440-50-8	4.26		1.99	0.179	1
01654	Iron	7439-89-6	18,500		39.9	3.79	1
06955	Lead	7439-92-1	5.75		2.99	0.468	1
01656	Lithium	7439-93-2	24.7		4.0	0.55	1
01657	Magnesium	7439-95-4	3,650		9.96	1.72	1
06958	Manganese	7439-96-5	255		0.996	0.0827	1
06960	Molybdenum	7439-98-7	0.403	J	1.99	0.169	1
06961	Nickel	7440-02-0	6.27		1.99	0.110	1
10145	Phosphorus	7723-14-0	406		9.96	0.508	1
01662	Potassium	7440-09-7	3,750		99.6	13.5	1
01667	Sodium	7440-23-5	56.7	J	99.6	16.6	1
06969	Tin	7440-31-5	2.72	J	9.96	0.219	1
06970	Titanium	7440-32-6	999		0.996	0.169	1
06971	Vanadium	7440-62-2	23.6		0.996	0.110	1
06972	Zinc	7440-66-6	61.4		3.99	0.199	1
10146	Zirconium	7440-67-7	4.98	U	4.98	0.827	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.399	U	0.399	0.0996	2
06142	Silver	7440-22-4	0.0315	J	0.199	0.0199	2
06144	Strontium	7440-24-6	8.13		0.399	0.0339	2
06145	Thallium	7440-28-0	0.232		0.199	0.0299	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0199	U	0.0199	0.0103	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045C	n.a.	7.49		0.0100	0.0100	1
	The pH was measured in water at 21.4 C.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	1.6		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

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

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Analysis Report

Sample Description: SL-548-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7018436
LLI Group # 1382144
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/10/2013 13:50 by SM

Submitted: 04/11/2013 10:00
Reported: 04/25/2013 14:39

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

SL548 SDG#: PH028-06

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	0.0614	JQ	0.994	0.0495	1
11031	12378-PeCDD	40321-76-4	0.596	JB	4.97	0.0665	1
11031	123478-HxCDD	39227-28-6	1.02	JBQ	4.97	0.0563	1
11031	123678-HxCDD	57653-85-7	3.24	J	4.97	0.0595	1
11031	123789-HxCDD	19408-74-3	2.10	JBQ	4.97	0.0577	1
11031	1234678-HpCDD	35822-46-9	76.3	B	4.97	0.0633	1
11031	OCDD	3268-87-9	716	B	9.94	0.0490	1
11031	2378-TCDF	51207-31-9	0.994	U	0.994	0.0576	1
11031	12378-PeCDF	57117-41-6	0.235	JBQ	4.97	0.0325	1
11031	23478-PeCDF	57117-31-4	0.255	JBQ	4.97	0.0338	1
11031	123478-HxCDF	70648-26-9	0.516	JB	4.97	0.0548	1
11031	123678-HxCDF	57117-44-9	0.595	JBQ	4.97	0.0471	1
11031	123789-HxCDF	72918-21-9	4.97	U	4.97	0.0607	1
11031	234678-HxCDF	60851-34-5	0.909	JBQ	4.97	0.0504	1
11031	1234678-HpCDF	67562-39-4	10.2	B	4.97	0.0297	1
11031	1234789-HpCDF	55673-89-7	1.05	JB	4.97	0.0492	1
11031	OCDF	39001-02-0	20.5	B	9.94	0.0481	1
Toxic Equivalents	**EPA 1613B**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	2.07				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	67	25 - 164
13C12-12378-PeCDD	74	25 - 181
13C12-123478-HxCDD	80	32 - 141
13C12-123678-HxCDD	80	28 - 130
13C12-123789-HxCDD	79	28 - 130
13C12-1234678-HpCDD	87	23 - 140
13C12-OCDD	91	17 - 157
13C12-2378-TCDF	62	24 - 169
13C12-12378-PeCDF	77	24 - 185
13C12-23478-PeCDF	69	21 - 178
13C12-123478-HxCDF	75	26 - 152
13C12-123678-HxCDF	85	26 - 123
13C12-234678-HxCDF	76	28 - 136
13C12-123789-HxCDF	72	29 - 147
13C12-1234678-HpCDF	106	28 - 143
13C12-1234789-HpCDF	76	26 - 138
13C12-OCDF	77	17 - 157

Dioxins/Furans Data Qualifiers:

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

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

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Analysis Report

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Sample Description: SL-548-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7018436
LLI Group # 1382144
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/10/2013 13:50 by SM

Submitted: 04/11/2013 10:00
Reported: 04/25/2013 14:39

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

SL548 SDG#: PH028-06

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

F *Interference is present*
S *Saturation of detection signal*

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

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Analysis Report

Sample Description: SL-548-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7018436
LLI Group # 1382144
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/10/2013 13:50 by SM

Submitted: 04/11/2013 10:00
Reported: 04/25/2013 14:39

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

SL548 SDG#: PH028-06

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13105SLA026	04/23/2013 08:28	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	13105SLA026	04/15/2013 14:00	David S Schrum	1
10592	19a PCBs and PCTs 8082A	SW-846 8082A	1	131050020A	04/20/2013 03:46	Jessica L Miller	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	131050020A	04/16/2013 05:50	Roman Kuropatkin	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	131060013A	04/19/2013 16:06	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	131060013A	04/16/2013 13:00	David S Schrum	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13102001	04/15/2013 19:58	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13102001	04/12/2013 10:00	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010C	1	131070637001	04/21/2013 19:37	Tara L Snyder	1
06944	Antimony	SW-846 6010C	1	131070637001	04/21/2013 19:37	Tara L Snyder	1
06935	Arsenic	SW-846 6010C	1	131070637001	04/21/2013 19:37	Tara L Snyder	1
06946	Barium	SW-846 6010C	1	131070637001	04/21/2013 19:37	Tara L Snyder	1
06947	Beryllium	SW-846 6010C	1	131070637001	04/21/2013 19:37	Tara L Snyder	1
07914	Boron	SW-846 6010C	1	131070637001	04/21/2013 19:37	Tara L Snyder	1
06949	Cadmium	SW-846 6010C	1	131070637001	04/21/2013 19:37	Tara L Snyder	1
01650	Calcium	SW-846 6010C	1	131070637001	04/21/2013 19:37	Tara L Snyder	1
06951	Chromium	SW-846 6010C	1	131070637001	04/21/2013 19:37	Tara L Snyder	1
06952	Cobalt	SW-846 6010C	1	131070637001	04/21/2013 19:37	Tara L Snyder	1
06953	Copper	SW-846 6010C	1	131070637001	04/21/2013 19:37	Tara L Snyder	1
01654	Iron	SW-846 6010C	1	131070637001	04/21/2013 19:37	Tara L Snyder	1
06955	Lead	SW-846 6010C	1	131070637001	04/21/2013 19:37	Tara L Snyder	1
01656	Lithium	SW-846 6010C	1	131070637001	04/21/2013 19:37	Tara L Snyder	1
01657	Magnesium	SW-846 6010C	1	131070637001	04/21/2013 19:37	Tara L Snyder	1
06958	Manganese	SW-846 6010C	1	131070637001	04/21/2013 19:37	Tara L Snyder	1
06960	Molybdenum	SW-846 6010C	1	131070637001	04/21/2013 19:37	Tara L Snyder	1
06961	Nickel	SW-846 6010C	1	131070637001	04/21/2013 19:37	Tara L Snyder	1
10145	Phosphorus	SW-846 6010C	1	131070637001	04/21/2013 19:37	Tara L Snyder	1
01662	Potassium	SW-846 6010C	1	131070637001	04/21/2013 19:37	Tara L Snyder	1
01667	Sodium	SW-846 6010C	1	131070637001	04/21/2013 19:37	Tara L Snyder	1
06969	Tin	SW-846 6010C	1	131070637001	04/21/2013 19:37	Tara L Snyder	1
06970	Titanium	SW-846 6010C	1	131070637001	04/21/2013 19:37	Tara L Snyder	1
06971	Vanadium	SW-846 6010C	1	131070637001	04/21/2013 19:37	Tara L Snyder	1
06972	Zinc	SW-846 6010C	1	131070637001	04/21/2013 19:37	Tara L Snyder	1
10146	Zirconium	SW-846 6010C	1	131070637001	04/21/2013 19:37	Tara L Snyder	1
06141	Selenium	SW-846 6020A	1	131070637001B	04/21/2013 01:56	David K Beck	2
06142	Silver	SW-846 6020A	1	131070637001A	04/21/2013 01:56	David K Beck	2
06144	Strontium	SW-846 6020A	1	131070637001A	04/21/2013 01:56	David K Beck	2
06145	Thallium	SW-846 6020A	1	131070637001A	04/21/2013 01:56	David K Beck	2

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

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Analysis Report

Sample Description: SL-548-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7018436
LLI Group # 1382144
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/10/2013 13:50 by SM

Submitted: 04/11/2013 10:00
Reported: 04/25/2013 14:39

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

SL548 SDG#: PH028-06

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00159	3a Mercury 7471A	SW-846 7471B	1	131070638001	04/18/2013 07:55	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	131070637001	04/17/2013 23:35	Annamaria Stipkovits	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	131070638001	04/18/2013 02:45	Annamaria Stipkovits	1
00394	15a pH by 9045C	SW-846 9045D modified	1	13101039401A	04/11/2013 19:40	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13106162401B	04/16/2013 21:43	Scott W Freisher	1

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

Sample Description: SL-549-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7018437
LLI Group # 1382144
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/10/2013 14:40 by SM

Submitted: 04/11/2013 10:00
Reported: 04/25/2013 14:39

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

SL549 SDG#: PH028-07*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.68	1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.34	1
12969	Anthracene	120-12-7	1.7	U	1.7	0.34	1
12969	Benzo(a)anthracene	56-55-3	1.7	U	1.7	0.68	1
12969	Benzo(a)pyrene	50-32-8	1.7	U	1.7	0.68	1
12969	Benzo(b)fluoranthene	205-99-2	1.5	J	1.7	0.68	1
12969	Benzo(e)pyrene	192-97-2	17	U	17	3.4	1
12969	Benzo(g,h,i)perylene	191-24-2	1.7	U	1.7	0.68	1
12969	Benzo(k)fluoranthene	207-08-9	1.7	U	1.7	0.68	1
12969	Butylbenzylphthalate	85-68-7	18	U	18	6.1	1
12969	Di-n-butylphthalate	84-74-2	18	U	18	6.1	1
12969	Chrysene	218-01-9	1.7		1.7	0.34	1
12969	Dibenz(a,h)anthracene	53-70-3	1.7	U	1.7	0.68	1
12969	Diethylphthalate	84-66-2	18	U	18	6.1	1
12969	Dimethylphthalate	131-11-3	18	U	18	6.1	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	18	U	18	6.1	1
12969	Fluoranthene	206-44-0	1.6	J	1.7	0.68	1
12969	Fluorene	86-73-7	1.7	U	1.7	0.68	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.7	U	1.7	0.68	1
12969	1-Methylnaphthalene	90-12-0	1.7	U	1.7	0.68	1
12969	2-Methylnaphthalene	91-57-6	0.73	J	1.7	0.68	1
12969	Naphthalene	91-20-3	1.0	J	1.7	0.68	1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.68	1
12969	Di-n-octylphthalate	117-84-0	18	U	18	6.1	1
12969	Phenanthrene	85-01-8	0.93	J	1.7	0.68	1
12969	Pyrene	129-00-0	1.6	J	1.7	0.68	1
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
10592	Aroclor 5432	63496-31-1	34	U	34	10	1
10592	Aroclor 5442	12642-23-8	34	U	34	10	1
10592	Aroclor 5460	11126-42-4	34	U	34	10	1
10592	PCB-1016	12674-11-2	17	U	17	3.4	1
10592	PCB-1221	11104-28-2	17	U	17	5.2	1
10592	PCB-1232	11141-16-5	17	U	17	4.2	1
10592	PCB-1242	53469-21-9	17	U	17	3.4	1
10592	PCB-1248	12672-29-6	17	U	17	3.4	1
10592	PCB-1254	11097-69-1	17	U	17	4.5	1
10592	PCB-1260	11096-82-5	17	U	17	4.0	1
10592	PCB-1262	37324-23-5	17	U	17	3.4	1
10592	PCB-1268	11100-14-4	17	U	17	3.4	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.1	U	5.1	2.0	1
12952	EFH (C15-C20)	n.a.	5.1	U	5.1	2.0	1
12952	EFH (C21-C30)	n.a.	10		5.1	2.0	1
12952	EFH (C30-C40)	n.a.	33		10	4.1	1
12952	EFH (C8-C11)	n.a.	5.1	U	5.1	2.0	1
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	

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

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Analysis Report

Sample Description: SL-549-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7018437
LLI Group # 1382144
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/10/2013 14:40 by SM

Submitted: 04/11/2013 10:00
Reported: 04/25/2013 14:39

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

SL549 SDG#: PH028-07*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	11,700		40.8	7.86	1
06944	Antimony	7440-36-0	4.08	U	4.08	0.510	1
06935	Arsenic	7440-38-2	4.51		4.08	0.336	1
06946	Barium	7440-39-3	74.6		1.02	0.0336	1
06947	Beryllium	7440-41-7	0.528	J	1.02	0.0683	1
07914	Boron	7440-42-8	10.2	U	10.2	0.846	1
06949	Cadmium	7440-43-9	0.175	J	1.02	0.0336	1
01650	Calcium	7440-70-2	6,380		20.4	4.10	1
06951	Chromium	7440-47-3	17.2		3.06	0.0897	1
06952	Cobalt	7440-48-4	5.78		1.02	0.0917	1
06953	Copper	7440-50-8	6.96		2.04	0.183	1
01654	Iron	7439-89-6	19,900		40.8	3.87	1
06955	Lead	7439-92-1	7.88		3.06	0.479	1
01656	Lithium	7439-93-2	25.7		4.1	0.56	1
01657	Magnesium	7439-95-4	5,080		10.2	1.76	1
06958	Manganese	7439-96-5	338		1.02	0.0846	1
06960	Molybdenum	7439-98-7	2.04	U	2.04	0.173	1
06961	Nickel	7440-02-0	10.2		2.04	0.112	1
10145	Phosphorus	7723-14-0	438		10.2	0.520	1
01662	Potassium	7440-09-7	4,180		102	13.8	1
01667	Sodium	7440-23-5	62.7	J	102	17.0	1
06969	Tin	7440-31-5	2.69	J	10.2	0.224	1
06970	Titanium	7440-32-6	1,050		1.02	0.173	1
06971	Vanadium	7440-62-2	34.0		1.02	0.112	1
06972	Zinc	7440-66-6	56.2		4.08	0.204	1
10146	Zirconium	7440-67-7	5.10	U	5.10	0.846	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.196	J	0.408	0.102	2
06142	Silver	7440-22-4	0.0306	J	0.204	0.0204	2
06144	Strontium	7440-24-6	12.5		0.408	0.0347	2
06145	Thallium	7440-28-0	0.232		0.204	0.0306	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0203	U	0.0203	0.0105	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045C	n.a.	7.71		0.0100	0.0100	1
	The pH was measured in water at 21.4 C.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	1.9		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

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

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Analysis Report

Sample Description: SL-549-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7018437
LLI Group # 1382144
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/10/2013 14:40 by SM

Submitted: 04/11/2013 10:00
Reported: 04/25/2013 14:39

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

SL549 SDG#: PH028-07*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.984	U	0.984	0.0383	1
11031	12378-PeCDD	40321-76-4	0.156	JB	4.92	0.0371	1
11031	123478-HxCDD	39227-28-6	0.231	JB	4.92	0.0447	1
11031	123678-HxCDD	57653-85-7	0.597	J	4.92	0.0470	1
11031	123789-HxCDD	19408-74-3	0.492	JB	4.92	0.0436	1
11031	1234678-HpCDD	35822-46-9	11.1	B	4.92	0.0405	1
11031	OCDD	3268-87-9	70.7	B	9.84	0.0307	1
11031	2378-TCDF	51207-31-9	0.109	J	0.984	0.0578	1
11031	12378-PeCDF	57117-41-6	0.355	JB	4.92	0.0257	1
11031	23478-PeCDF	57117-31-4	0.263	JBQ	4.92	0.0263	1
11031	123478-HxCDF	70648-26-9	0.133	JBQ	4.92	0.0357	1
11031	123678-HxCDF	57117-44-9	0.168	JB	4.92	0.0302	1
11031	123789-HxCDF	72918-21-9	4.92	U	4.92	0.0410	1
11031	234678-HxCDF	60851-34-5	0.147	JBQ	4.92	0.0312	1
11031	1234678-HpCDF	67562-39-4	1.08	JB	4.92	0.0161	1
11031	1234789-HpCDF	55673-89-7	0.0925	JBQ	4.92	0.0298	1
11031	OCDF	39001-02-0	2.07	JB	9.84	0.0480	1
Toxic Equivalents	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.470				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	66	25 - 164
13C12-12378-PeCDD	81	25 - 181
13C12-123478-HxCDD	77	32 - 141
13C12-123678-HxCDD	77	28 - 130
13C12-123789-HxCDD	78	28 - 130
13C12-1234678-HpCDD	75	23 - 140
13C12-OCDD	74	17 - 157
13C12-2378-TCDF	60	24 - 169
13C12-12378-PeCDF	82	24 - 185
13C12-23478-PeCDF	73	21 - 178
13C12-123478-HxCDF	70	26 - 152
13C12-123678-HxCDF	81	26 - 123
13C12-234678-HxCDF	72	28 - 136
13C12-123789-HxCDF	62	29 - 147
13C12-1234678-HpCDF	97	28 - 143
13C12-1234789-HpCDF	60	26 - 138
13C12-OCDF	58	17 - 157

Dioxins/Furans Data Qualifiers:

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

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

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Analysis Report

Sample Description: SL-549-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7018437
LLI Group # 1382144
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/10/2013 14:40 by SM

Submitted: 04/11/2013 10:00
Reported: 04/25/2013 14:39

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

SL549 SDG#: PH028-07*

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

F *Interference is present*
S *Saturation of detection signal*

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

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SL549 SDG#: PH028-07*

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13105SLA026	04/23/2013	08:56	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	13105SLA026	04/15/2013	14:00	David S Schrum	1
10592	19a PCBs and PCTs 8082A	SW-846 8082A	1	131050020A	04/20/2013	04:04	Jessica L Miller	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	131050020A	04/16/2013	05:50	Roman Kuropatkin	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	131060013A	04/19/2013	16:27	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	131060013A	04/16/2013	13:00	David S Schrum	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13102001	04/15/2013	20:54	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13102001	04/12/2013	10:00	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010C	1	131050637003	04/19/2013	17:51	Katlin N Cataldi	1
06944	Antimony	SW-846 6010C	1	131050637003	04/19/2013	17:51	Katlin N Cataldi	1
06935	Arsenic	SW-846 6010C	1	131050637003	04/19/2013	17:51	Katlin N Cataldi	1
06946	Barium	SW-846 6010C	1	131050637003	04/19/2013	17:51	Katlin N Cataldi	1
06947	Beryllium	SW-846 6010C	1	131050637003	04/19/2013	17:51	Katlin N Cataldi	1
07914	Boron	SW-846 6010C	3	131050637003	04/22/2013	15:00	Eric L Eby	1
06949	Cadmium	SW-846 6010C	1	131050637003	04/19/2013	17:51	Katlin N Cataldi	1
01650	Calcium	SW-846 6010C	1	131050637003	04/19/2013	17:51	Katlin N Cataldi	1
06951	Chromium	SW-846 6010C	1	131050637003	04/19/2013	17:51	Katlin N Cataldi	1
06952	Cobalt	SW-846 6010C	1	131050637003	04/19/2013	17:51	Katlin N Cataldi	1
06953	Copper	SW-846 6010C	1	131050637003	04/19/2013	17:51	Katlin N Cataldi	1
01654	Iron	SW-846 6010C	1	131050637003	04/19/2013	17:51	Katlin N Cataldi	1
06955	Lead	SW-846 6010C	1	131050637003	04/19/2013	17:51	Katlin N Cataldi	1
01656	Lithium	SW-846 6010C	1	131050637003	04/19/2013	17:51	Katlin N Cataldi	1
01657	Magnesium	SW-846 6010C	1	131050637003	04/19/2013	17:51	Katlin N Cataldi	1
06958	Manganese	SW-846 6010C	1	131050637003	04/19/2013	17:51	Katlin N Cataldi	1
06960	Molybdenum	SW-846 6010C	1	131050637003	04/19/2013	17:51	Katlin N Cataldi	1
06961	Nickel	SW-846 6010C	1	131050637003	04/19/2013	17:51	Katlin N Cataldi	1
10145	Phosphorus	SW-846 6010C	1	131050637003	04/19/2013	17:51	Katlin N Cataldi	1
01662	Potassium	SW-846 6010C	1	131050637003	04/19/2013	17:51	Katlin N Cataldi	1
01667	Sodium	SW-846 6010C	1	131050637003	04/19/2013	17:51	Katlin N Cataldi	1
06969	Tin	SW-846 6010C	1	131050637003	04/19/2013	17:51	Katlin N Cataldi	1
06970	Titanium	SW-846 6010C	1	131050637003	04/19/2013	17:51	Katlin N Cataldi	1
06971	Vanadium	SW-846 6010C	1	131050637003	04/19/2013	17:51	Katlin N Cataldi	1
06972	Zinc	SW-846 6010C	1	131050637003	04/19/2013	17:51	Katlin N Cataldi	1
10146	Zirconium	SW-846 6010C	1	131050637003	04/19/2013	17:51	Katlin N Cataldi	1
06141	Selenium	SW-846 6020A	1	131050637003B	04/21/2013	00:26	David K Beck	2
06142	Silver	SW-846 6020A	1	131050637003A	04/21/2013	00:26	David K Beck	2
06144	Strontium	SW-846 6020A	1	131050637003A	04/21/2013	00:26	David K Beck	2
06145	Thallium	SW-846 6020A	1	131050637003A	04/21/2013	00:26	David K Beck	2

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

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Analysis Report

Sample Description: SL-549-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7018437
LLI Group # 1382144
Account # 13013

Project Name: Phase 3 Subarea 7

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

SL549 SDG#: PH028-07*

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00159	3a Mercury 7471A	SW-846 7471B	1	131060638003	04/18/2013 07:37	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	131050637003	04/17/2013 09:07	Denise K Conners	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	131060638003	04/17/2013 11:40	Denise K Conners	1
00394	15a pH by 9045C	SW-846 9045D modified	1	13101039401A	04/11/2013 19:40	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13106162401B	04/16/2013 21:43	Scott W Freisher	1

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

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1382144
Reported: 04/25/13 at 02:39 PM

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 13105SLA026	Sample number(s): 7018431-7018434,7018436-7018437									
Acenaphthene	1.7	U	1.7	0.67	ug/kg	120*		69-114		
Acenaphthylene	1.7	U	1.7	0.33	ug/kg	111		71-113		
Anthracene	1.7	U	1.7	0.33	ug/kg	107		75-116		
Benzo(a)anthracene	1.7	U	1.7	0.67	ug/kg	104		76-115		
Benzo(a)pyrene	1.7	U	1.7	0.67	ug/kg	105		76-117		
Benzo(b)fluoranthene	1.7	U	1.7	0.67	ug/kg	113		77-129		
Benzo(e)pyrene	17	U	17.	3.3	ug/kg	92		70-130		
Benzo(g,h,i)perylene	1.7	U	1.7	0.67	ug/kg	104		64-120		
Benzo(k)fluoranthene	1.7	U	1.7	0.67	ug/kg	102		71-120		
Butylbenzylphthalate	18	U	18.	6.0	ug/kg	107		65-131		
Di-n-butylphthalate	18	U	18.	6.0	ug/kg	109		67-140		
Chrysene	1.7	U	1.7	0.33	ug/kg	105		78-111		
Dibenz(a,h)anthracene	1.7	U	1.7	0.67	ug/kg	103		65-124		
Diethylphthalate	18	U	18.	6.0	ug/kg	125		68-125		
Dimethylphthalate	18	U	18.	6.0	ug/kg	110		70-130		
Bis(2-Ethylhexyl)phthalate	18	U	18.	6.0	ug/kg	107		67-143		
Fluoranthene	1.7	U	1.7	0.67	ug/kg	105		68-119		
Fluorene	1.7	U	1.7	0.67	ug/kg	120		75-123		
Indeno(1,2,3-cd)pyrene	1.7	U	1.7	0.67	ug/kg	103		66-122		
1-Methylnaphthalene	1.7	U	1.7	0.67	ug/kg	104		74-113		
2-Methylnaphthalene	1.7	U	1.7	0.67	ug/kg	108		78-121		
Naphthalene	1.7	U	1.7	0.67	ug/kg	103		64-120		
N-Nitrosodimethylamine	1.7	U	1.7	0.67	ug/kg	87		30-125		
Di-n-octylphthalate	18	U	18.	6.0	ug/kg	105		57-133		
Phenanthrene	1.7	U	1.7	0.67	ug/kg	101		72-110		
Pyrene	1.7	U	1.7	0.67	ug/kg	111		71-120		
Batch number: 13106A16A	Sample number(s): 7018434									
11a TPH by EPA 8015B GRO	1.0	U	1.0	0.2	mg/kg	90		67-119		
Batch number: 13106A20A	Sample number(s): 7018435									
TPH-GRO S.CA water C5-C12	50	U	50.	20	ug/l	99	98	75-135	2	30
Batch number: 131050020A	Sample number(s): 7018431-7018434,7018436-7018437									
Aroclor 5432	33	U	33.	10	ug/kg					
Aroclor 5442	33	U	33.	10	ug/kg	70	75	36-106	6	30
Aroclor 5460	33	U	33.	10	ug/kg					
PCB-1016	17	U	17.	3.3	ug/kg	84		80-120		
PCB-1221	17	U	17.	5.1	ug/kg					
PCB-1232	17	U	17.	4.1	ug/kg					
PCB-1242	17	U	17.	3.3	ug/kg					
PCB-1248	17	U	17.	3.3	ug/kg					
PCB-1254	17	U	17.	4.4	ug/kg					

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1382144
Reported: 04/25/13 at 02:39 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
PCB-1260	17	U	17.	3.9	ug/kg	105		72-120		
PCB-1262	17	U	17.	3.3	ug/kg					
PCB-1268	17	U	17.	3.3	ug/kg					
Batch number: 131060013A	Sample number(s): 7018431-7018434,7018436-7018437									
EFH (C12-C14)	5.0	U	5.0	2.0	mg/kg	98	95	70-123	3	20
EFH (C15-C20)	5.0	U	5.0	2.0	mg/kg	113	110	75-128	3	20
EFH (C21-C30)	5.0	U	5.0	2.0	mg/kg	110	108	64-134	2	20
EFH (C30-C40)	10	U	10.	4.0	mg/kg	79	70	65-128	12	20
EFH (C8-C11)	5.0	U	5.0	2.0	mg/kg	82	79	49-107	4	20
Batch number: 131050637003	Sample number(s): 7018431-7018434,7018437									
Aluminum	40.0	U	40.0	7.71	mg/kg	103		80-120		
Antimony	4.00	U	4.00	0.500	mg/kg	113		80-120		
Arsenic	4.00	U	4.00	0.330	mg/kg	105		80-120		
Barium	1.00	U	1.00	0.0330	mg/kg	104		80-120		
Beryllium	1.00	U	1.00	0.0670	mg/kg	104		80-120		
Boron	10.0	U	10.0	0.830	mg/kg	98		80-120		
Cadmium	1.00	U	1.00	0.0330	mg/kg	107		80-120		
Calcium	4.23	J	20.0	4.02	mg/kg	105		80-120		
Chromium	3.00	U	3.00	0.0880	mg/kg	103		80-120		
Cobalt	1.00	U	1.00	0.0900	mg/kg	107		80-120		
Copper	2.00	U	2.00	0.180	mg/kg	105		80-120		
Iron	40.0	U	40.0	3.80	mg/kg	100		80-120		
Lead	3.00	U	3.00	0.470	mg/kg	109		80-120		
Lithium	4.0	U	4.0	0.55	mg/kg	102		80-120		
Magnesium	10.0	U	10.0	1.73	mg/kg	102		80-120		
Manganese	1.00	U	1.00	0.0830	mg/kg	104		80-120		
Molybdenum	2.00	U	2.00	0.170	mg/kg	107		80-120		
Nickel	2.00	U	2.00	0.110	mg/kg	109		80-120		
Phosphorus	14.4		10.0	0.510	mg/kg	120		80-120		
Potassium	100 U		100.	13.5	mg/kg	101		80-120		
Sodium	100 U		100.	16.7	mg/kg	100		80-120		
Tin	1.39	J	10.0	0.220	mg/kg	106		80-120		
Titanium	1.00	U	1.00	0.170	mg/kg	104		80-120		
Vanadium	1.00	U	1.00	0.110	mg/kg	106		80-120		
Zinc	0.273	J	4.00	0.200	mg/kg	108		80-120		
Zirconium	5.00	U	5.00	0.830	mg/kg	104		80-120		
Batch number: 131050637003A	Sample number(s): 7018431-7018434,7018437									
Silver	0.200	U	0.200	0.0200	mg/kg	108		80-120		
Strontium	0.400	U	0.400	0.0340	mg/kg	102		80-120		
Thallium	0.200	U	0.200	0.0300	mg/kg	111		80-120		
Batch number: 131050637003B	Sample number(s): 7018431-7018434,7018437									
Selenium	0.400	U	0.400	0.100	mg/kg	120		80-120		
Batch number: 131060638003	Sample number(s): 7018431-7018434,7018437									
3a Mercury 7471A	0.0167	U	0.0167	0.0103	mg/kg	100		85-120		
Batch number: 131070637001	Sample number(s): 7018436									
Aluminum	40.0	U	40.0	7.71	mg/kg	99		80-120		
Antimony	4.00	U	4.00	0.500	mg/kg	101		80-120		
Arsenic	4.00	U	4.00	0.330	mg/kg	109		80-120		

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1382144
Reported: 04/25/13 at 02:39 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Barium	1.00	U	1.00	0.0330	mg/kg	104		80-120		
Beryllium	1.00	U	1.00	0.0670	mg/kg	102		80-120		
Boron	10.0	U	10.0	0.830	mg/kg	96		80-120		
Cadmium	1.00	U	1.00	0.0330	mg/kg	106		80-120		
Calcium	20.0	U	20.0	4.02	mg/kg	101		80-120		
Chromium	3.00	U	3.00	0.0880	mg/kg	100		80-120		
Cobalt	1.00	U	1.00	0.0900	mg/kg	106		80-120		
Copper	2.00	U	2.00	0.180	mg/kg	103		80-120		
Iron	40.0	U	40.0	3.80	mg/kg	103		80-120		
Lead	3.00	U	3.00	0.470	mg/kg	106		80-120		
Lithium	4.0	U	4.0	0.55	mg/kg	103		80-120		
Magnesium	1.82	J	10.0	1.73	mg/kg	99		80-120		
Manganese	1.00	U	1.00	0.0830	mg/kg	104		80-120		
Molybdenum	2.00	U	2.00	0.170	mg/kg	100		80-120		
Nickel	2.00	U	2.00	0.110	mg/kg	107		80-120		
Phosphorus	10.9		10.0	0.510	mg/kg	116		80-120		
Potassium	100 U		100.	13.5	mg/kg	101		80-120		
Sodium	100 U		100.	16.7	mg/kg	99		80-120		
Tin	1.40	J	10.0	0.220	mg/kg	101		80-120		
Titanium	1.00	U	1.00	0.170	mg/kg	102		80-120		
Vanadium	1.00	U	1.00	0.110	mg/kg	98		80-120		
Zinc	4.00	U	4.00	0.200	mg/kg	108		80-120		
Zirconium	5.00	U	5.00	0.830	mg/kg	101		80-120		
Batch number: 131070637001A	Sample number(s): 7018436									
Silver	0.200	U	0.200	0.0200	mg/kg	110		80-120		
Strontium	0.400	U	0.400	0.0340	mg/kg	111		80-120		
Thallium	0.200	U	0.200	0.0300	mg/kg	97		80-120		
Batch number: 131070637001B	Sample number(s): 7018436									
Selenium	0.400	U	0.400	0.100	mg/kg	117		80-120		
Batch number: 131070638001	Sample number(s): 7018436									
3a Mercury 7471A	0.0167	U	0.0167	0.0103	mg/kg	109		85-120		
Batch number: 131120637001	Sample number(s): 7018431									
Phosphorus	0.876	J	10.0	0.510	mg/kg	102		80-120		
Batch number: 13101039401A	Sample number(s): 7018431-7018434,7018436-7018437									
15a pH by 9045C						100		95-105		
Batch number: 13106162401B	Sample number(s): 7018431-7018434,7018436-7018437									
14a Moisture Content by 160.3						100		80-120		

Analysis Name	Blank Result		Blank MRL**	Blank EDL	Report Units	OPR %REC	OPRD %REC	OPR/OPRD Limits	RPD	RPD Max
Batch number: 13102001	Sample number(s): 7018431-7018434,7018436-7018437									
2378-TCDD	1.00	U	1.00	0.0405	ng/kg	90		67-158		
12378-PeCDD	0.0495	J	5.00	0.0292	ng/kg	96		70-142		
123478-HxCDD	0.0211	J	5.00	0.0201	ng/kg	101		70-164		
123678-HxCDD	5.00	U	5.00	0.0211	ng/kg	101		76-134		
123789-HxCDD	0.0541	J	5.00	0.0210	ng/kg	100		64-162		

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1382144
Reported: 04/25/13 at 02:39 PM

Analysis Name	Blank Result		Blank MRL**	Blank EDL	Report Units	OPR %REC	OPRD %REC	OPR/OPRD Limits	RPD	RPD Max
1234678-HpCDD	0.0738	J	5.00	0.0241	ng/kg	98		70-140		
OCDD	0.157	J	10.0	0.0247	ng/kg	99		78-144		
2378-TCDF	1.00	U	1.00	0.0472	ng/kg	107		75-158		
12378-PeCDF	0.0431	J	5.00	0.0178	ng/kg	97		80-134		
23478-PeCDF	0.0684	J	5.00	0.0181	ng/kg	100		68-160		
123478-HxCDF	0.0555	J	5.00	0.0217	ng/kg	104		72-134		
123678-HxCDF	0.0300	J	5.00	0.0177	ng/kg	99		84-130		
123789-HxCDF	0.0734	J	5.00	0.0261	ng/kg	103		78-130		
234678-HxCDF	0.0447	J	5.00	0.0203	ng/kg	101		70-156		
1234678-HpCDF	0.0663	J	5.00	0.00888	ng/kg	99		82-122		
1234789-HpCDF	0.0735	J	5.00	0.0194	ng/kg	102		78-138		
OCDF	0.166	J	10.0	0.0444	ng/kg	102		63-170		
TEQ WHO 2005 - EDLx0.0	0.0118				ng/kg					

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 13105SLA026	Sample number(s): 7018431-7018434,7018436-7018437 UNSPK: P016768								
Acenaphthene	116	110	48-127	6	30				
Acenaphthylene	112	109	49-121	3	30				
Anthracene	107	105	52-126	2	30				
Benzo(a)anthracene	103	106	32-135	3	30				
Benzo(a)pyrene	101	99	36-138	2	30				
Benzo(b)fluoranthene	111	107	26-142	4	30				
Benzo(e)pyrene	1*	1*	70-130	1	30				
Benzo(g,h,i)perylene	97	93	33-141	4	30				
Benzo(k)fluoranthene	93	91	47-129	2	30				
Butylbenzylphthalate	102	99	59-153	2	30				
Di-n-butylphthalate	123	110	62-154	11	30				
Chrysene	102	103	29-148	1	30				
Dibenz(a,h)anthracene	107	103	34-125	4	30				
Diethylphthalate	135*	133*	76-127	1	30				
Dimethylphthalate	116	110	62-136	5	30				
Bis(2-Ethylhexyl)phthalate	66	69	39-167	2	30				
Fluoranthene	95	91	47-135	5	30				
Fluorene	109	109	50-129	0	30				
Indeno(1,2,3-cd)pyrene	107	101	17-136	6	30				
1-Methylnaphthalene	104	102	50-131	1	30				
2-Methylnaphthalene	107	106	28-144	1	30				
Naphthalene	101	100	31-148	2	30				
N-Nitrosodimethylamine	79	76	48-113	3	30				
Di-n-octylphthalate	97	96	52-162	2	30				
Phenanthrene	105	104	29-142	1	30				
Pyrene	105	108	26-143	3	30				

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1382144
Reported: 04/25/13 at 02:39 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 13106A16A	Sample number(s): 7018434 UNSPK: P022144								
11a TPH by EPA 8015B GRO	92	100	39-118	9	30				
Batch number: 131050020A	Sample number(s): 7018431-7018434,7018436-7018437 UNSPK: P016768								
PCB-1016	100	72	16-146	31	50				
PCB-1260	104	70	40-134	39	50				
Batch number: 131060013A	Sample number(s): 7018431-7018434,7018436-7018437 UNSPK: P022144								
EFH (C12-C14)	96	113	49-123	16	20				
EFH (C15-C20)	152*	217*	49-123	35*	20				
EFH (C21-C30)	125*	235*	49-123	33*	20				
EFH (C30-C40)	198*	401*	49-123	35*	20				
EFH (C8-C11)	92	108	49-123	16	20				
Batch number: 131050637003	Sample number(s): 7018431-7018434,7018437 UNSPK: P016768 BKG: P016768								
Aluminum	1818 (2)	1689 (2)	75-125	1	20	12,800	13,500	5	20
Antimony	48*	47*	75-125	0	20	3.96 U	3.92 U	0 (1)	20
Arsenic	94	96	75-125	3	20	4.05	4.49	10 (1)	20
Barium	97	99	75-125	3	20	70.3	69.9	1	20
Beryllium	102	101	75-125	1	20	0.538 J	0.550 J	2 (1)	20
Boron	99	106	75-125	9	20	9.90 U	9.80 U	0 (1)	20
Cadmium	94	99	75-125	7	20	0.0703 J	0.116 J	49* (1)	20
Calcium	17 (2)	365 (2)	75-125	37*	20	2,990	2,910	3	20
Chromium	102	104	75-125	2	20	14.7	14.3	3 (1)	20
Cobalt	92	94	75-125	3	20	4.14	3.71	11 (1)	20
Copper	96	103	75-125	7	20	6.49	6.12	6 (1)	20
Iron	-545 (2)	-1097 (2)	75-125	3	20	18,400	17,300	7	20
Lead	90	93	75-125	4	20	5.05	5.12	2 (1)	20
Lithium	100	100	75-125	1	20	21.7	20.4	6	20
Magnesium	169 (2)	78 (2)	75-125	4	20	3,950	3,710	6	20
Manganese	131 (2)	65 (2)	75-125	11	20	236	220	7	20
Molybdenum	94	95	75-125	3	20	0.650 J	0.234 J	94* (1)	20
Nickel	93	97	75-125	5	20	8.52	8.24	3 (1)	20
Phosphorus	56*	127*	75-125	15	20	385	365	5	20
Potassium	81	65*	75-125	3	20	3,440	3,290	5	20
Sodium	98	97	75-125	2	20	67.0 J	66.0 J	2 (1)	20
Tin	87	89	75-125	4	20	2.67 J	2.57 J	4 (1)	20
Titanium	325 (2)	208 (2)	75-125	10	20	859	880	2	20
Vanadium	106	102	75-125	1	20	28.8	28.6	1	20
Zinc	83	100	75-125	9	20	54.0	50.4	7	20
Zirconium	98	97	75-125	1	20	0.891 J	1.71 J	63* (1)	20
Batch number: 131050637003A	Sample number(s): 7018431-7018434,7018437 UNSPK: P016768 BKG: P016768								
Silver	97	101	75-125	7	20	0.0232 J	0.0211 J	9 (1)	20
Strontium	92	153*	75-125	17	20	18.8	17.7	6	20
Thallium	105	113	75-125	6	20	0.216	0.224	3 (1)	20
Batch number: 131050637003B	Sample number(s): 7018431-7018434,7018437 UNSPK: P016768 BKG: P016768								
Selenium	95	89	75-125	4	20	0.0990 J	0.165 J	50* (1)	20

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1382144
Reported: 04/25/13 at 02:39 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 131060638003	Sample number(s): 7018431-7018434,7018437 UNSPK: P016768 BKG: P016768								
3a Mercury 7471A	114	115	65-135	1	20	0.0195 U	0.0189 U	0 (1)	20
Batch number: 131070637001	Sample number(s): 7018436 UNSPK: P022144 BKG: P022144								
Aluminum	1359 (2)	1600 (2)	75-125	3	20	10,500	10,800	2	20
Antimony	70*	73*	75-125	4	20	1.54 J	1.48 J	4 (1)	20
Arsenic	111	108	75-125	2	20	2.01 J	2.79 J	32* (1)	20
Barium	105	100	75-125	3	20	70.2	68.6	2	20
Beryllium	99	99	75-125	1	20	0.469 J	0.472 J	1 (1)	20
Boron	94	95	75-125	0	20	3.12 J	3.00 J	4 (1)	20
Cadmium	105	104	75-125	1	20	0.409 J	0.437 J	7 (1)	20
Calcium	67 (2)	102 (2)	75-125	4	20	3,060	2,860	7	20
Chromium	103	118	75-125	8	20	18.0	17.9	1	20
Cobalt	101	100	75-125	1	20	4.98	4.86	3	20
Copper	101	101	75-125	0	20	5.00	5.12	2 (1)	20
Iron	1525 (2)	1576 (2)	75-125	0	20	18,500	19,000	3	20
Lead	106	104	75-125	1	20	5.00	5.37	7 (1)	20
Lithium	104	105	75-125	1	20	22.9	23.7	3	20
Magnesium	277 (2)	267 (2)	75-125	0	20	3,970	3,970	0	20
Manganese	107 (2)	104 (2)	75-125	0	20	275	269	2	20
Molybdenum	96	96	75-125	0	20	1.19 J	0.434 J	93* (1)	20
Nickel	100	99	75-125	1	20	8.44	8.47	0 (1)	20
Phosphorus	98	132*	75-125	7	20	357	368	3	20
Potassium	129*	124	75-125	1	20	2,680	2,750	2	20
Sodium	96	97	75-125	2	20	59.7 J	60.9 J	2 (1)	20
Tin	92	91	75-125	0	20	2.85 J	2.68 J	6 (1)	20
Titanium	243 (2)	230 (2)	75-125	1	20	1,030	1,050	2	20
Vanadium	100	99	75-125	1	20	28.1	28.2	0	20
Zinc	112	111	75-125	0	20	53.7	54.2	1	20
Zirconium	95	94	75-125	1	20	1.08 J	1.96 J	57* (1)	20
Batch number: 131070637001A	Sample number(s): 7018436 UNSPK: P022144 BKG: P022144								
Silver	100	101	75-125	1	20	0.0299 J	0.0323 J	8 (1)	20
Strontium	89	103	75-125	6	20	11.7	11.4	2	20
Thallium	105	98	75-125	5	20	0.226	0.220	3 (1)	20
Batch number: 131070637001B	Sample number(s): 7018436 UNSPK: P022144 BKG: P022144								
Selenium	116	111	75-125	4	20	0.385 U	0.385 U	0 (1)	20
Batch number: 131070638001	Sample number(s): 7018436 UNSPK: P022144 BKG: P022144								
3a Mercury 7471A	112	111	65-135	1	20	0.0197 U	0.0198 U	0 (1)	20
Batch number: 131120637001	Sample number(s): 7018431 UNSPK: 7018431 BKG: 7018431								
Phosphorus	107	123	75-125	4	20	271	274	1	20
Batch number: 13101039401A	Sample number(s): 7018431-7018434,7018436-7018437 BKG: P016766								
15a pH by 9045C						7.59	7.61	0	3
Batch number: 13106162401B	Sample number(s): 7018431-7018434,7018436-7018437 BKG: 7018437								
14a Moisture Content by 160.3						1.9	2.0	3	20

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1382144
Reported: 04/25/13 at 02:39 PM

Sample Matrix Quality Control

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Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 7a SVOC SIM EPA 8270D
Batch number: 13105SLA026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
7018431	81	97	93
7018432	83	94	94
7018433	81	92	90
7018434	80	95	92
7018436	80	92	92
7018437	78	93	92
Blank	88	96	124
LCS	89	99	97
MS	83	98	99
MSD	80	96	94
Limits:	54-129	61-134	55-129

Analysis Name: 11a TPH by EPA 8015B GRO
Batch number: 13106A16A

	Trifluorotoluene-F
7018434	81
Blank	89
LCS	84
MS	80
MSD	80
Limits:	61-122

Analysis Name: 11b TPH by EPA 8015B GRO
Batch number: 13106A20A

	Trifluorotoluene-F
7018435	88
Blank	88
LCS	110
LCSD	112
Limits:	63-135

Analysis Name: 19a PCBs and PCTs 8082A

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1382144
Reported: 04/25/13 at 02:39 PM

Surrogate Quality Control

Batch number: 131050020A

	Tetrachloro-m-xylene	Decachlorobiphenyl
7018431	120	83
7018432	105	77
7018433	122*	87
7018434	120	85
7018436	121*	85
7018437	124*	91
Blank	117	87
LCS	117	90
LCSD	121*	94
MS	120	93
MSD	79	73
Limits:	45-120	45-120

Analysis Name: 10a TPH by EPA 8015B (DRO)
Batch number: 131060013A

	Chlorobenzene	Orthoterphenyl
7018431	82	81
7018432	82	79
7018433	94	79
7018434	89	77
7018436	85	73
7018437	81	72
Blank	84	85
LCS	92	83
LCSD	88	81
MS	86	72
MSD	90	66
Limits:	37-125	66-123

Analysis Name: 23a Dioxin/Furan by EPA 1613B
Batch number: 13102001

	13C12-2378-TCDD	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF	13C12-234678-HxCDF	13C12-123789-HxCDF
7018431	65	69	66	82	70	53
7018432	70	73	69	82	71	57
7018433	72	74	69	84	71	54
7018434	63	69	68	82	71	55
7018436	67	69	75	85	76	72
7018437	66	73	70	81	72	62
Blank	72	81	76	90	80	69
OPR	63	62	58	75	63	50
Limits:	25-164	21-178	26-152	26-123	28-136	29-147

	13C12-1234678-HpCDF	13C12-1234789-HpCDF	13C12-OCDF	13C12-12378-PeCDD	13C12-123478-HxCDD	13C12-123678-HxCDD
7018431	101	49	41	82	77	79
7018432	104	54	49	85	79	80
7018433	103	51	46	85	79	81
7018434	103	54	47	80	77	79

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1382144
Reported: 04/25/13 at 02:39 PM

Surrogate Quality Control

7018436	106	76	77	74	80	80
7018437	97	60	58	81	77	77
Blank	127	70	68	92	90	88
OPR	107	49	47	79	76	76
Limits:	28-143	26-138	17-157	25-181	32-141	28-130

	13C12-123789-HxCDD	13C12-1234678-HpCDD	13C12-OCDD	13C12-2378-TCDF	13C12-12378-PeCDF
7018431	76	73	64	56	82
7018432	78	78	72	60	85
7018433	81	76	70	63	89
7018434	78	76	69	55	80
7018436	79	87	91	62	77
7018437	78	75	74	60	82
Blank	87	96	97	60	89
OPR	76	81	82	49	74
Limits:	28-130	23-140	17-157	24-169	24-185

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acct#13013 Gp#1382144 sample#7018431-37

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 4/10/2013
CarrierName: FedEx
AirbillNo: 7994 9700 1597

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20130410-01
Cooler #: 1
Lab: Lancaster
Lab Phone: 717-556-7259
Lab Address: 2425 New Holland Pike, Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Other Analysis/Notes
SL-547-SA7-SB-0.0-0.5	4/9/13 15:10	SO	None	2 - SS-Sleeve	0	X	X					X		X	X											X											
SL-547-SA7-SB-0.0-0.5	4/9/13 15:10	SO	None	1 - 4 oz glass	0													X																			
SL-552-SA7-SB-0.0-0.5	4/10/13 09:05	SO	None	2 - SS-Sleeve	0	X	X					X		X	X											X											
SL-552-SA7-SB-0.0-0.5	4/10/13 09:05	SO	None	1 - 4 oz glass	0													X																			
SL-551-SA7-SB-0.0-0.5	4/10/13 09:55	SO	None	2 - SS-Sleeve	0	X	X					X		X	X											X											
SL-551-SA7-SB-0.0-0.5	4/10/13 09:55	SO	None	1 - 4 oz glass	0													X																			
SL-551-SA7-SB-2.0-3.0	4/10/13 11:00		None	2 - SS-Sleeve	0	X	X					X		X	X											X											
SL-551-SA7-SB-2.0-3.0	4/10/13 11:00		None	1 - 4 oz glass	0													X																			
SL-551-SA7-SB-2.0-3.0	4/10/13 11:00		None	3 - Encore	0																			X													
TB-041013	4/10/13 08:00	WQ	HCl	3 - 40 mL Vial	0																			X													
SL-548-SA7-SB-0.0-0.5	4/10/13 13:50	SO	None	2 - SS-Sleeve	0	X	X					X		X	X											X											
SL-548-SA7-SB-0.0-0.5	4/10/13 13:50	SO	None	1 - 4 oz glass	0													X																			
SL-549-SA7-SB-0.0-0.5	4/10/13 14:40	SO	None	2 - SS-Sleeve	0	X	X					X		X	X											X											
SL-549-SA7-SB-0.0-0.5	4/10/13 14:40	SO	None	1 - 4 oz glass	0													X																			

Special Instructions:

Sampler: Steven Mercer

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
V. Gatz	4/10/13										
									Patgh	4/11/13	1000

eurofins | Lancaster Laboratories

C# 1382144

Environmental Sample Administration
Receipt Documentation Log

Client/Project: CDM Smith

Date of Receipt: 4/11/13

Time of Receipt: 1000

Source Code: SO

Shipping Container Sealed: (YES) NO

Custody Seal Present * : (YES) NO

* Custody seal was intact unless otherwise noted in the discrepancy section

Package: (Chilled) Not Chilled

Temperature of Shipping Containers							
Cooler #	Thermometer ID	Temperature (°C)	Temp Bottle (TB) or Surface Temp (ST)	Wet Ice (WI) or Dry Ice (DI) or Ice Packs (IP)	Ice Present? Y/N	Loose (L) Bagged Ice (B) or NA	Comments
1	2783	2.6	TB	WI	Y	B	
2							
3							
4							
5							
6							

Number of Trip Blanks received NOT listed on chain of custody: Ø

Paperwork Discrepancy/Unpacking Problems:

Unpacker Signature/Emp#: Pat Gh 3472 **Date/Time:** 4/11/13 1240

Issued by Dept. 6042 Management

2174.06

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	**BMQL**	Below Minimum Quantitation Level
N.D.	none detected	**MPN**	Most Probable Number
TNTC	Too Numerous To Count	**CP Units**	cobalt-chloroplatinate units
IU	International Units	**NTU**	nephelometric turbidity units
umhos/cm	micromhos/cm	**ng**	nanogram(s)
C	degrees Celsius	**F**	degrees Fahrenheit
meq	milliequivalents	**lb.**	pound(s)
g	gram(s)	**kg**	kilogram(s)
µg	microgram(s)	**mg**	milligram(s)
mL	milliliter(s)	**L**	liter(s)
m3	cubic meter(s)	**µL**	microliter(s)
		pg/L	picogram/liter

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

J estimated value – The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	**B**	Value is <CRDL, but ≥IDL
B	Analyte was also detected in the blank	**E**	Estimated due to interference
C	Pesticide result confirmed by GC/MS	**M**	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	**N**	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	**S**	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	**U**	Compound was not detected
P	Concentration difference between primary and confirmation columns >25%	**W**	Post digestion spike out of control limits
U	Compound was not detected	*****	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	**+**	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as “analyze immediately” are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL LANCASTER LABORATORIES BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF LANCASTER LABORATORIES AND (B) WHETHER LANCASTER LABORATORIES HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Lancaster Laboratories which includes any conditions that vary from the Standard Terms and Conditions, and Lancaster hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

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

May 03, 2013

Project: Phase 3 Subarea 7

Submittal Date: 04/12/2013
Group Number: 1382496
SDG: PH029
PO Number: 1204-002-001-AL
State of Sample Origin: CA

Client Sample Description	Lancaster Labs (LLI) #
SL-553-SA7-SB-0.0-0.5 Soil	7020345
SL-554-SA7-SB-0.0-0.5 Soil	7020346
SL-555-SA7-SB-0.0-0.5 Soil	7020347
SL-536-SA7-SB-0.0-0.5 Soil	7020348
EB-041113 Water	7020349
FB-041113 Water	7020350

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

ELECTRONIC COPY TO	LLI	Attn: Nicole Maljovec
ELECTRONIC COPY TO	Eurofins Lancaster Labs	Attn: Natalie Luciano

Respectfully Submitted,

Nicole L. Maljovec
Principal Specialist Group Leader

(717) 556-7259

Sample Description: SL-553-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7020345
LLI Group # 1382496
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/11/2013 08:10 by SM

Submitted: 04/12/2013 09:25
Reported: 05/03/2013 09:52

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

553-- SDG#: PH029-01

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		ug/kg		ug/kg	ug/kg	ug/kg	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.67		1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.34		1
12969	Anthracene	120-12-7	1.7	U	1.7	0.34		1
12969	Benzo(a)anthracene	56-55-3	1.7	U	1.7	0.67		1
12969	Benzo(a)pyrene	50-32-8	1.7	U	1.7	0.67		1
12969	Benzo(b)fluoranthene	205-99-2	1.2	J	1.7	0.67		1
12969	Benzo(e)pyrene	192-97-2	17	U	17	3.4		1
12969	Benzo(g,h,i)perylene	191-24-2	1.7	U	1.7	0.67		1
12969	Benzo(k)fluoranthene	207-08-9	1.7	U	1.7	0.67		1
12969	Butylbenzylphthalate	85-68-7	18	U	18	6.1		1
12969	Di-n-butylphthalate	84-74-2	18	U	18	6.1		1
12969	Chrysene	218-01-9	1.1	J	1.7	0.34		1
12969	Dibenz(a,h)anthracene	53-70-3	1.7	U	1.7	0.67		1
12969	Diethylphthalate	84-66-2	18	U	18	6.1		1
12969	Dimethylphthalate	131-11-3	18	U	18	6.1		1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	6.8	J	18	6.1		1
12969	Fluoranthene	206-44-0	1.2	J	1.7	0.67		1
12969	Fluorene	86-73-7	1.7	U	1.7	0.67		1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.7	U	1.7	0.67		1
12969	1-Methylnaphthalene	90-12-0	1.7	U	1.7	0.67		1
12969	2-Methylnaphthalene	91-57-6	1.7	U	1.7	0.67		1
12969	Naphthalene	91-20-3	1.7	U	1.7	0.67		1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.67		1
12969	Di-n-octylphthalate	117-84-0	18	U	18	6.1		1
12969	Phenanthrene	85-01-8	0.68	J	1.7	0.67		1
12969	Pyrene	129-00-0	1.2	J	1.7	0.67		1
Pesticides/PCBs	**SW-846 8082A**		ug/kg		ug/kg	ug/kg	ug/kg	
10592	Aroclor 5432	63496-31-1	33	U	33	10		1
10592	Aroclor 5442	12642-23-8	33	U	33	10		1
10592	Aroclor 5460	11126-42-4	33	U	33	10		1
10592	PCB-1016	12674-11-2	17	U	17	3.3		1
10592	PCB-1221	11104-28-2	17	U	17	5.1		1
10592	PCB-1232	11141-16-5	17	U	17	4.1		1
10592	PCB-1242	53469-21-9	17	U	17	3.3		1
10592	PCB-1248	12672-29-6	17	U	17	3.3		1
10592	PCB-1254	11097-69-1	17	U	17	4.4		1
10592	PCB-1260	11096-82-5	17	U	17	3.9		1
10592	PCB-1262	37324-23-5	17	U	17	3.3		1
10592	PCB-1268	11100-14-4	17	U	17	3.3		1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		mg/kg		mg/kg	mg/kg	mg/kg	
12952	EFH (C12-C14)	n.a.	5.1	U	5.1	2.0		1
12952	EFH (C15-C20)	n.a.	5.1	U	5.1	2.0		1
12952	EFH (C21-C30)	n.a.	11		5.1	2.0		1
12952	EFH (C30-C40)	n.a.	16		10	4.0		1
12952	EFH (C8-C11)	n.a.	5.1	U	5.1	2.0		1
Metals	**SW-846 6010C**		mg/kg		mg/kg	mg/kg	mg/kg	

*=This limit was used in the evaluation of the final result
Shaded result = The results or reporting limit exceeded the client-provided action limit.

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Analysis Report

Sample Description: SL-553-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7020345
LLI Group # 1382496
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/11/2013 08:10 by SM

Submitted: 04/12/2013 09:25
Reported: 05/03/2013 09:52

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

553-- SDG#: PH029-01

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	11,500		40.0	7.72		1
06944	Antimony	7440-36-0	4.00	U	4.00	0.501		1
06935	Arsenic	7440-38-2	4.00	J	4.00	0.330		1
06946	Barium	7440-39-3	88.2		1.00	0.0330		1
06947	Beryllium	7440-41-7	0.509	J	1.00	0.0671		1
07914	Boron	7440-42-8	10.0	U	10.0	0.831		1
06949	Cadmium	7440-43-9	0.229	J	1.00	0.0330		1
01650	Calcium	7440-70-2	8,930		20.0	4.02		1
06951	Chromium	7440-47-3	20.7		3.00	0.0881		1
06952	Cobalt	7440-48-4	4.78		1.00	0.0901		1
06953	Copper	7440-50-8	7.89		2.00	0.180		1
01654	Iron	7439-89-6	20,400		40.0	3.80		1
06955	Lead	7439-92-1	7.06		3.00	0.471		1
01656	Lithium	7439-93-2	29.2		4.0	0.55		1
01657	Magnesium	7439-95-4	6,440		10.0	1.73		1
06958	Manganese	7439-96-5	302		1.00	0.0831		1
06960	Molybdenum	7439-98-7	2.00	U	2.00	0.170		1
06961	Nickel	7440-02-0	11.8		2.00	0.110		1
10145	Phosphorus	7723-14-0	459		10.0	0.511		1
01662	Potassium	7440-09-7	3,090		100	13.5		1
01667	Sodium	7440-23-5	69.1	J	100	16.7		1
06969	Tin	7440-31-5	2.70	J	10.0	0.220		1
06970	Titanium	7440-32-6	1,190		1.00	0.170		1
06971	Vanadium	7440-62-2	40.1		1.00	0.110		1
06972	Zinc	7440-66-6	60.8		4.00	0.200		1
10146	Zirconium	7440-67-7	5.01	U	5.01	0.831		1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.107	J	0.400	0.100		2
06142	Silver	7440-22-4	0.0459	J	0.200	0.0200		2
06144	Strontium	7440-24-6	19.2		0.400	0.0340		2
06145	Thallium	7440-28-0	0.223		0.200	0.0300		2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0192	U	0.0192	0.0099		1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	**Std. Units**	
00394	15a pH by 9045C	n.a.	7.90		0.0100	0.0100		1
	The pH was measured in water at 21.1 C.							
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	1.1		0.10	0.10		1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.							

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

Sample Description: SL-553-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7020345
LLI Group # 1382496
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/11/2013 08:10 by SM

Submitted: 04/12/2013 09:25
Reported: 05/03/2013 09:52

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

553-- SDG#: PH029-01

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Action Limit	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg		ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0659	JBQ	1.00	0.0297		1
11031	12378-PeCDD	40321-76-4	0.0481	JQ	5.02	0.0295		1
11031	123478-HxCDD	39227-28-6	0.147	JB	5.02	0.0338		1
11031	123678-HxCDD	57653-85-7	0.399	JB	5.02	0.0347		1
11031	123789-HxCDD	19408-74-3	0.368	J	5.02	0.0340		1
11031	1234678-HpCDD	35822-46-9	6.94	B	5.02	0.0282		1
11031	OCDD	3268-87-9	73.4	B	10.0	0.0216		1
11031	2378-TCDF	51207-31-9	0.0333	JQ	1.00	0.0332		1
11031	12378-PeCDF	57117-41-6	0.149	JB	5.02	0.0163		1
11031	23478-PeCDF	57117-31-4	0.144	JB	5.02	0.0154		1
11031	123478-HxCDF	70648-26-9	0.121	JB	5.02	0.0252		1
11031	123678-HxCDF	57117-44-9	0.0953	JB	5.02	0.0231		1
11031	123789-HxCDF	72918-21-9	0.0657	JB	5.02	0.0243		1
11031	234678-HxCDF	60851-34-5	0.122	JBQ	5.02	0.0239		1
11031	1234678-HpCDF	67562-39-4	1.12	JB	5.02	0.0147		1
11031	1234789-HpCDF	55673-89-7	0.137	JB	5.02	0.0172		1
11031	OCDF	39001-02-0	2.38	JB	10.0	0.0237		1
Toxic Equivalents	**EPA 1613B**		ng/kg		ng/kg	ng/kg	ng/kg	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.272					1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	74	25 - 164
13C12-12378-PeCDD	86	25 - 181
13C12-123478-HxCDD	85	32 - 141
13C12-123678-HxCDD	85	28 - 130
13C12-123789-HxCDD	85	28 - 130
13C12-1234678-HpCDD	93	23 - 140
13C12-OCDD	101	17 - 157
13C12-2378-TCDF	69	24 - 169
13C12-12378-PeCDF	85	24 - 185
13C12-23478-PeCDF	85	21 - 178
13C12-123478-HxCDF	88	26 - 152
13C12-123678-HxCDF	91	26 - 123
13C12-234678-HxCDF	88	28 - 136
13C12-123789-HxCDF	97	29 - 147
13C12-1234678-HpCDF	101	28 - 143
13C12-1234789-HpCDF	94	26 - 138
13C12-OCDF	100	17 - 157

Dioxins/Furans Data Qualifiers:

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

*=This limit was used in the evaluation of the final result
Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-553-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7020345
LLI Group # 1382496
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/11/2013 08:10 by SM

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553-- SDG#: PH029-01

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

F *Interference is present*
S *Saturation of detection signal*

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Shaded result = The results or reporting limit exceeded the client-provided action limit.

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Analysis Report

Sample Description: SL-553-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7020345
LLI Group # 1382496
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/11/2013 08:10 by SM

Submitted: 04/12/2013 09:25
Reported: 05/03/2013 09:52

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

553-- SDG#: PH029-01

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13105SLA026	04/23/2013	09:25	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	13105SLA026	04/15/2013	14:00	David S Schrum	1
10592	19a PCBs and PCTs 8082A	SW-846 8082A	1	131050020A	04/20/2013	04:23	Jessica L Miller	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	131050020A	04/16/2013	05:50	Roman Kuropatkin	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	131060013A	04/19/2013	11:16	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	131060013A	04/16/2013	13:00	David S Schrum	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13106003	04/17/2013	20:41	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13106003	04/16/2013	13:00	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010C	1	131050637003	04/19/2013	17:55	Katlin N Cataldi	1
06944	Antimony	SW-846 6010C	1	131050637003	04/19/2013	17:55	Katlin N Cataldi	1
06935	Arsenic	SW-846 6010C	1	131050637003	04/19/2013	17:55	Katlin N Cataldi	1
06946	Barium	SW-846 6010C	1	131050637003	04/19/2013	17:55	Katlin N Cataldi	1
06947	Beryllium	SW-846 6010C	1	131050637003	04/19/2013	17:55	Katlin N Cataldi	1
07914	Boron	SW-846 6010C	3	131050637003	04/22/2013	15:04	Eric L Eby	1
06949	Cadmium	SW-846 6010C	1	131050637003	04/19/2013	17:55	Katlin N Cataldi	1
01650	Calcium	SW-846 6010C	1	131050637003	04/19/2013	17:55	Katlin N Cataldi	1
06951	Chromium	SW-846 6010C	1	131050637003	04/19/2013	17:55	Katlin N Cataldi	1
06952	Cobalt	SW-846 6010C	1	131050637003	04/19/2013	17:55	Katlin N Cataldi	1
06953	Copper	SW-846 6010C	1	131050637003	04/19/2013	17:55	Katlin N Cataldi	1
01654	Iron	SW-846 6010C	1	131050637003	04/19/2013	17:55	Katlin N Cataldi	1
06955	Lead	SW-846 6010C	1	131050637003	04/19/2013	17:55	Katlin N Cataldi	1
01656	Lithium	SW-846 6010C	1	131050637003	04/19/2013	17:55	Katlin N Cataldi	1
01657	Magnesium	SW-846 6010C	1	131050637003	04/19/2013	17:55	Katlin N Cataldi	1
06958	Manganese	SW-846 6010C	1	131050637003	04/19/2013	17:55	Katlin N Cataldi	1
06960	Molybdenum	SW-846 6010C	1	131050637003	04/19/2013	17:55	Katlin N Cataldi	1
06961	Nickel	SW-846 6010C	1	131050637003	04/19/2013	17:55	Katlin N Cataldi	1
10145	Phosphorus	SW-846 6010C	1	131050637003	04/19/2013	17:55	Katlin N Cataldi	1
01662	Potassium	SW-846 6010C	1	131050637003	04/19/2013	17:55	Katlin N Cataldi	1
01667	Sodium	SW-846 6010C	1	131050637003	04/19/2013	17:55	Katlin N Cataldi	1
06969	Tin	SW-846 6010C	1	131050637003	04/19/2013	17:55	Katlin N Cataldi	1
06970	Titanium	SW-846 6010C	1	131050637003	04/19/2013	17:55	Katlin N Cataldi	1
06971	Vanadium	SW-846 6010C	1	131050637003	04/19/2013	17:55	Katlin N Cataldi	1
06972	Zinc	SW-846 6010C	1	131050637003	04/19/2013	17:55	Katlin N Cataldi	1
10146	Zirconium	SW-846 6010C	1	131050637003	04/19/2013	17:55	Katlin N Cataldi	1
06141	Selenium	SW-846 6020A	1	131050637003B	04/21/2013	00:28	David K Beck	2
06142	Silver	SW-846 6020A	1	131050637003A	04/21/2013	00:28	David K Beck	2
06144	Strontium	SW-846 6020A	1	131050637003A	04/21/2013	00:28	David K Beck	2
06145	Thallium	SW-846 6020A	1	131050637003A	04/21/2013	00:28	David K Beck	2

*=This limit was used in the evaluation of the final result
Shaded result = The results or reporting limit exceeded the client-provided action limit.

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Analysis Report

Sample Description: SL-553-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7020345
LLI Group # 1382496
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/11/2013 08:10 by SM

Submitted: 04/12/2013 09:25
Reported: 05/03/2013 09:52

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

553-- SDG#: PH029-01

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00159	3a Mercury 7471A	SW-846 7471B	1	131060638003	04/18/2013 07:39	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	131050637003	04/17/2013 09:07	Denise K Conners	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	131060638003	04/17/2013 11:40	Denise K Conners	1
00394	15a pH by 9045C	SW-846 9045D modified	1	13102039401A	04/12/2013 20:15	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13106162401B	04/16/2013 21:43	Scott W Freisher	1

*=This limit was used in the evaluation of the final result
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Sample Description: SL-554-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7020346
LLI Group # 1382496
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/11/2013 09:00 by SM

Submitted: 04/12/2013 09:25
Reported: 05/03/2013 09:52

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

554-- SDG#: PH029-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	17	U	17	6.9		10
12969	Acenaphthylene	208-96-8	17	U	17	3.5		10
12969	Anthracene	120-12-7	17	U	17	3.5		10
12969	Benzo(a)anthracene	56-55-3	17	U	17	6.9		10
12969	Benzo(a)pyrene	50-32-8	17	U	17	6.9		10
12969	Benzo(b)fluoranthene	205-99-2	68		17	6.9		10
12969	Benzo(e)pyrene	192-97-2	80	J	180	35		10
12969	Benzo(g,h,i)perylene	191-24-2	35		17	6.9		10
12969	Benzo(k)fluoranthene	207-08-9	17	U	17	6.9		10
12969	Butylbenzylphthalate	85-68-7	190	U	190	62		10
12969	Di-n-butylphthalate	84-74-2	190	U	190	62		10
12969	Chrysene	218-01-9	17	U	17	3.5		10
12969	Dibenz(a,h)anthracene	53-70-3	17	U	17	6.9		10
12969	Diethylphthalate	84-66-2	190	U	190	62		10
12969	Dimethylphthalate	131-11-3	190	U	190	62		10
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	190	U	190	62		10
12969	Fluoranthene	206-44-0	17	U	17	6.9		10
12969	Fluorene	86-73-7	17	U	17	6.9		10
12969	Indeno(1,2,3-cd)pyrene	193-39-5	17	U	17	6.9		10
12969	1-Methylnaphthalene	90-12-0	17	U	17	6.9		10
12969	2-Methylnaphthalene	91-57-6	17	U	17	6.9		10
12969	Naphthalene	91-20-3	17	U	17	6.9		10
12969	N-Nitrosodimethylamine	62-75-9	17	U	17	6.9		10
12969	Di-n-octylphthalate	117-84-0	190	U	190	62		10
12969	Phenanthrene	85-01-8	17	U	17	6.9		10
12969	Pyrene	129-00-0	8.3	J	17	6.9		10
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	**ug/kg**	
10592	Aroclor 5432	63496-31-1	34	U	34	10		1
10592	Aroclor 5442	12642-23-8	34	U	34	10		1
10592	Aroclor 5460	11126-42-4	34	U	34	10		1
10592	PCB-1016	12674-11-2	17	U	17	3.4		1
10592	PCB-1221	11104-28-2	17	U	17	5.2		1
10592	PCB-1232	11141-16-5	17	U	17	4.2		1
10592	PCB-1242	53469-21-9	17	U	17	3.4		1
10592	PCB-1248	12672-29-6	17	U	17	3.4		1
10592	PCB-1254	11097-69-1	17	U	17	4.5		1
10592	PCB-1260	11096-82-5	17	U	17	4.0		1
10592	PCB-1262	37324-23-5	17	U	17	3.4		1
10592	PCB-1268	11100-14-4	17	U	17	3.4		1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	520	U	520	210		100
12952	EFH (C15-C20)	n.a.	520	U	520	210		100
12952	EFH (C21-C30)	n.a.	1,500		520	210		100
12952	EFH (C30-C40)	n.a.	4,100		1,000	410		100
12952	EFH (C8-C11)	n.a.	520	U	520	210		100
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	

*=This limit was used in the evaluation of the final result
Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-554-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7020346
LLI Group # 1382496
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/11/2013 09:00 by SM

Submitted: 04/12/2013 09:25
Reported: 05/03/2013 09:52

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

554-- SDG#: PH029-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	13,300		40.7	7.84		1
06944	Antimony	7440-36-0	4.07	U	4.07	0.509		1
06935	Arsenic	7440-38-2	4.23		4.07	0.336		1
06946	Barium	7440-39-3	80.6		1.02	0.0336		1
06947	Beryllium	7440-41-7	0.549	J	1.02	0.0681		1
07914	Boron	7440-42-8	10.2	U	10.2	0.844		1
06949	Cadmium	7440-43-9	0.169	J	1.02	0.0336		1
01650	Calcium	7440-70-2	3,670		20.3	4.09		1
06951	Chromium	7440-47-3	17.7		3.05	0.0895		1
06952	Cobalt	7440-48-4	4.98		1.02	0.0915		1
06953	Copper	7440-50-8	8.26		2.03	0.183		1
01654	Iron	7439-89-6	19,400		40.7	3.86		1
06955	Lead	7439-92-1	8.02		3.05	0.478		1
01656	Lithium	7439-93-2	22.7		4.1	0.56		1
01657	Magnesium	7439-95-4	4,510		10.2	1.76		1
06958	Manganese	7439-96-5	281		1.02	0.0844		1
06960	Molybdenum	7439-98-7	2.03	U	2.03	0.173		1
06961	Nickel	7440-02-0	11.4		2.03	0.112		1
10145	Phosphorus	7723-14-0	426		10.2	0.519		1
01662	Potassium	7440-09-7	3,430		102	13.7		1
01667	Sodium	7440-23-5	66.8	J	102	17.0		1
06969	Tin	7440-31-5	2.54	J	10.2	0.224		1
06970	Titanium	7440-32-6	988		1.02	0.173		1
06971	Vanadium	7440-62-2	35.8		1.02	0.112		1
06972	Zinc	7440-66-6	60.0		4.07	0.203		1
10146	Zirconium	7440-67-7	5.09	U	5.09	0.844		1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.117	J	0.407	0.102		2
06142	Silver	7440-22-4	0.0846	J	0.203	0.0203		2
06144	Strontium	7440-24-6	15.8		0.407	0.0346		2
06145	Thallium	7440-28-0	0.230		0.203	0.0305		2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0221		0.0199	0.0103		1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	**Std. Units**	
00394	15a pH by 9045C	n.a.	7.18		0.0100	0.0100		1
	The pH was measured in water at 21.5 C.							
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	3.6		0.10	0.10		1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.							

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Analysis Report

Sample Description: SL-554-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7020346
LLI Group # 1382496
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/11/2013 09:00 by SM

Submitted: 04/12/2013 09:25
Reported: 05/03/2013 09:52

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

554-- SDG#: PH029-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Action Limit	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg		ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0864	JB	1.03	0.0294		1
11031	12378-PeCDD	40321-76-4	0.441	J	5.13	0.0407		1
11031	123478-HxCDD	39227-28-6	0.627	JB	5.13	0.0336		1
11031	123678-HxCDD	57653-85-7	1.60	JB	5.13	0.0337		1
11031	123789-HxCDD	19408-74-3	1.41	J	5.13	0.0331		1
11031	1234678-HpCDD	35822-46-9	36.8	B	5.13	0.0355		1
11031	OCDD	3268-87-9	455	B	10.3	0.0422		1
11031	2378-TCDF	51207-31-9	0.389	J	1.03	0.0823		1
11031	12378-PeCDF	57117-41-6	0.294	JB	5.13	0.0380		1
11031	23478-PeCDF	57117-31-4	0.865	JB	5.13	0.0339		1
11031	123478-HxCDF	70648-26-9	0.505	JB	5.13	0.0313		1
11031	123678-HxCDF	57117-44-9	0.356	JB	5.13	0.0296		1
11031	123789-HxCDF	72918-21-9	0.293	JB	5.13	0.0305		1
11031	234678-HxCDF	60851-34-5	0.440	JBQ	5.13	0.0275		1
11031	1234678-HpCDF	67562-39-4	5.79	B	5.13	0.0428		1
11031	1234789-HpCDF	55673-89-7	0.599	JB	5.13	0.0483		1
11031	OCDF	39001-02-0	12.8	B	10.3	0.0317		1
Toxic Equivalents	**EPA 1613B**		ng/kg		ng/kg	ng/kg	ng/kg	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	1.89					1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	79	25 - 164
13C12-12378-PeCDD	86	25 - 181
13C12-123478-HxCDD	80	32 - 141
13C12-123678-HxCDD	81	28 - 130
13C12-123789-HxCDD	80	28 - 130
13C12-1234678-HpCDD	79	23 - 140
13C12-OCDD	72	17 - 157
13C12-2378-TCDF	76	24 - 169
13C12-12378-PeCDF	84	24 - 185
13C12-23478-PeCDF	86	21 - 178
13C12-123478-HxCDF	85	26 - 152
13C12-123678-HxCDF	84	26 - 123
13C12-234678-HxCDF	84	28 - 136
13C12-123789-HxCDF	85	29 - 147
13C12-1234678-HpCDF	83	28 - 143
13C12-1234789-HpCDF	80	26 - 138
13C12-OCDF	74	17 - 157

Dioxins/Furans Data Qualifiers:

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

*=This limit was used in the evaluation of the final result
Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-554-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7020346
LLI Group # 1382496
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/11/2013 09:00 by SM

Submitted: 04/12/2013 09:25
Reported: 05/03/2013 09:52

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

554-- SDG#: PH029-02

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

F *Interference is present*
S *Saturation of detection signal*

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

Sample Description: SL-554-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7020346
LLI Group # 1382496
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/11/2013 09:00 by SM

Submitted: 04/12/2013 09:25
Reported: 05/03/2013 09:52

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

554-- SDG#: PH029-02

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13105SLA026	04/23/2013	09:54	Mark A Clark	10
10811	BNA Soil Microwave SIM	SW-846 3546	1	13105SLA026	04/15/2013	14:00	David S Schrum	1
10592	19a PCBs and PCTs 8082A	SW-846 8082A	1	131050020A	04/20/2013	04:41	Jessica L Miller	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	131050020A	04/16/2013	05:50	Roman Kuropatkin	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	131060013A	04/19/2013	17:29	Heather E Williams	100
12959	EFH soil ext.(microwave)	SW-846 3546	1	131060013A	04/16/2013	13:00	David S Schrum	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13106003	04/17/2013	21:37	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13106003	04/16/2013	13:00	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010C	1	131050637003	04/19/2013	17:59	Katlin N Cataldi	1
06944	Antimony	SW-846 6010C	1	131050637003	04/19/2013	17:59	Katlin N Cataldi	1
06935	Arsenic	SW-846 6010C	1	131050637003	04/19/2013	17:59	Katlin N Cataldi	1
06946	Barium	SW-846 6010C	1	131050637003	04/19/2013	17:59	Katlin N Cataldi	1
06947	Beryllium	SW-846 6010C	1	131050637003	04/19/2013	17:59	Katlin N Cataldi	1
07914	Boron	SW-846 6010C	3	131050637003	04/22/2013	15:08	Eric L Eby	1
06949	Cadmium	SW-846 6010C	1	131050637003	04/19/2013	17:59	Katlin N Cataldi	1
01650	Calcium	SW-846 6010C	1	131050637003	04/19/2013	17:59	Katlin N Cataldi	1
06951	Chromium	SW-846 6010C	1	131050637003	04/19/2013	17:59	Katlin N Cataldi	1
06952	Cobalt	SW-846 6010C	1	131050637003	04/19/2013	17:59	Katlin N Cataldi	1
06953	Copper	SW-846 6010C	1	131050637003	04/19/2013	17:59	Katlin N Cataldi	1
01654	Iron	SW-846 6010C	1	131050637003	04/19/2013	17:59	Katlin N Cataldi	1
06955	Lead	SW-846 6010C	1	131050637003	04/19/2013	17:59	Katlin N Cataldi	1
01656	Lithium	SW-846 6010C	1	131050637003	04/19/2013	17:59	Katlin N Cataldi	1
01657	Magnesium	SW-846 6010C	1	131050637003	04/19/2013	17:59	Katlin N Cataldi	1
06958	Manganese	SW-846 6010C	1	131050637003	04/19/2013	17:59	Katlin N Cataldi	1
06960	Molybdenum	SW-846 6010C	1	131050637003	04/19/2013	17:59	Katlin N Cataldi	1
06961	Nickel	SW-846 6010C	1	131050637003	04/19/2013	17:59	Katlin N Cataldi	1
10145	Phosphorus	SW-846 6010C	1	131050637003	04/19/2013	17:59	Katlin N Cataldi	1
01662	Potassium	SW-846 6010C	1	131050637003	04/19/2013	17:59	Katlin N Cataldi	1
01667	Sodium	SW-846 6010C	1	131050637003	04/19/2013	17:59	Katlin N Cataldi	1
06969	Tin	SW-846 6010C	1	131050637003	04/19/2013	17:59	Katlin N Cataldi	1
06970	Titanium	SW-846 6010C	1	131050637003	04/19/2013	17:59	Katlin N Cataldi	1
06971	Vanadium	SW-846 6010C	1	131050637003	04/19/2013	17:59	Katlin N Cataldi	1
06972	Zinc	SW-846 6010C	1	131050637003	04/19/2013	17:59	Katlin N Cataldi	1
10146	Zirconium	SW-846 6010C	1	131050637003	04/19/2013	17:59	Katlin N Cataldi	1
06141	Selenium	SW-846 6020A	1	131050637003B	04/21/2013	00:30	David K Beck	2
06142	Silver	SW-846 6020A	1	131050637003A	04/21/2013	00:30	David K Beck	2
06144	Strontium	SW-846 6020A	1	131050637003A	04/21/2013	00:30	David K Beck	2
06145	Thallium	SW-846 6020A	1	131050637003A	04/21/2013	00:30	David K Beck	2

*=This limit was used in the evaluation of the final result
Shaded result = The results or reporting limit exceeded the client-provided action limit.

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Analysis Report

Sample Description: SL-554-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7020346
LLI Group # 1382496
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/11/2013 09:00 by SM

Submitted: 04/12/2013 09:25
Reported: 05/03/2013 09:52

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

554-- SDG#: PH029-02

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00159	3a Mercury 7471A	SW-846 7471B	1	131060638003	04/18/2013 07:41	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	131050637003	04/17/2013 09:07	Denise K Conners	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	131060638003	04/17/2013 11:40	Denise K Conners	1
00394	15a pH by 9045C	SW-846 9045D modified	1	13102039401A	04/12/2013 20:15	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13106162401B	04/16/2013 21:43	Scott W Freisher	1

*=This limit was used in the evaluation of the final result
Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-555-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7020347
LLI Group # 1382496
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/11/2013 10:15 by SM

Submitted: 04/12/2013 09:25
Reported: 05/03/2013 09:52

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

555-- SDG#: PH029-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	180	U	180	71		100
12969	Acenaphthylene	208-96-8	180	U	180	36		100
12969	Anthracene	120-12-7	180	U	180	36		100
12969	Benzo(a)anthracene	56-55-3	180	U	180	71		100
12969	Benzo(a)pyrene	50-32-8	180	U	180	71		100
12969	Benzo(b)fluoranthene	205-99-2	180	U	180	71		100
12969	Benzo(e)pyrene	192-97-2	1,800	U	1,800	360		100
12969	Benzo(g,h,i)perylene	191-24-2	180	U	180	71		100
12969	Benzo(k)fluoranthene	207-08-9	180	U	180	71		100
12969	Butylbenzylphthalate	85-68-7	1,900	U	1,900	640		100
12969	Di-n-butylphthalate	84-74-2	1,900	U	1,900	640		100
12969	Chrysene	218-01-9	180	U	180	36		100
12969	Dibenz(a,h)anthracene	53-70-3	180	U	180	71		100
12969	Diethylphthalate	84-66-2	1,900	U	1,900	640		100
12969	Dimethylphthalate	131-11-3	1,900	U	1,900	640		100
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	1,900	U	1,900	640		100
12969	Fluoranthene	206-44-0	180	U	180	71		100
12969	Fluorene	86-73-7	180	U	180	71		100
12969	Indeno(1,2,3-cd)pyrene	193-39-5	180	U	180	71		100
12969	1-Methylnaphthalene	90-12-0	180	U	180	71		100
12969	2-Methylnaphthalene	91-57-6	180	U	180	71		100
12969	Naphthalene	91-20-3	180	U	180	71		100
12969	N-Nitrosodimethylamine	62-75-9	180	U	180	71		100
12969	Di-n-octylphthalate	117-84-0	1,900	U	1,900	640		100
12969	Phenanthrene	85-01-8	180	U	180	71		100
12969	Pyrene	129-00-0	180	U	180	71		100
Reporting limits were raised due to interference from the sample matrix.								
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	**ug/kg**	
10592	Aroclor 5432	63496-31-1	35	U	35	11		1
10592	Aroclor 5442	12642-23-8	35	U	35	11		1
10592	Aroclor 5460	11126-42-4	35	U	35	11		1
10592	PCB-1016	12674-11-2	18	U	18	3.5		1
10592	PCB-1221	11104-28-2	18	U	18	5.5		1
10592	PCB-1232	11141-16-5	18	U	18	4.4		1
10592	PCB-1242	53469-21-9	18	U	18	3.5		1
10592	PCB-1248	12672-29-6	18	U	18	3.5		1
10592	PCB-1254	11097-69-1	18	U	18	4.7		1
10592	PCB-1260	11096-82-5	18	U	18	4.2		1
10592	PCB-1262	37324-23-5	18	U	18	3.5		1
10592	PCB-1268	11100-14-4	18	U	18	3.5		1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	1,100	U	1,100	430		100
12952	EFH (C15-C20)	n.a.	1,100	U	1,100	430		100
12952	EFH (C21-C30)	n.a.	2,100		1,100	430		100
12952	EFH (C30-C40)	n.a.	5,100		2,100	860		100
12952	EFH (C8-C11)	n.a.	1,100	U	1,100	430		100

*=This limit was used in the evaluation of the final result
Shaded result = The results or reporting limit exceeded the client-provided action limit.

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Analysis Report

Sample Description: SL-555-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7020347
LLI Group # 1382496
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/11/2013 10:15 by SM

Submitted: 04/12/2013 09:25
Reported: 05/03/2013 09:52

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

555-- SDG#: PH029-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	14,800		41.2	7.94		1
06944	Antimony	7440-36-0	4.12	U	4.12	0.515		1
06935	Arsenic	7440-38-2	3.64	J	4.12	0.340		1
06946	Barium	7440-39-3	84.2		1.03	0.0340		1
06947	Beryllium	7440-41-7	0.575	J	1.03	0.0690		1
07914	Boron	7440-42-8	6.79	J	10.3	0.854		1
06949	Cadmium	7440-43-9	0.397	J	1.03	0.0340		1
01650	Calcium	7440-70-2	4,940		20.6	4.14		1
06951	Chromium	7440-47-3	16.9		3.09	0.0906		1
06952	Cobalt	7440-48-4	5.08		1.03	0.0927		1
06953	Copper	7440-50-8	8.64		2.06	0.185		1
01654	Iron	7439-89-6	19,600		41.2	3.91		1
06955	Lead	7439-92-1	10.5		3.09	0.484		1
01656	Lithium	7439-93-2	20.4		4.1	0.57		1
01657	Magnesium	7439-95-4	4,080		10.3	1.78		1
06958	Manganese	7439-96-5	291		1.03	0.0854		1
06960	Molybdenum	7439-98-7	2.06	U	2.06	0.175		1
06961	Nickel	7440-02-0	12.9		2.06	0.113		1
10145	Phosphorus	7723-14-0	445		10.3	0.525		1
01662	Potassium	7440-09-7	3,660		103	13.9		1
01667	Sodium	7440-23-5	76.8	J	103	17.2		1
06969	Tin	7440-31-5	2.62	J	10.3	0.226		1
06970	Titanium	7440-32-6	965		1.03	0.175		1
06971	Vanadium	7440-62-2	36.4		1.03	0.113		1
06972	Zinc	7440-66-6	67.5		4.12	0.206		1
10146	Zirconium	7440-67-7	0.902	J	5.15	0.854		1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.134	J	0.412	0.103		2
06142	Silver	7440-22-4	0.0523	J	0.206	0.0206		2
06144	Strontium	7440-24-6	23.4		0.412	0.0350		2
06145	Thallium	7440-28-0	0.188	J	0.206	0.0309		2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0178	J	0.0213	0.0110		1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	**Std. Units**	
00394	15a pH by 9045C	n.a.	7.79		0.0100	0.0100		1
	The pH was measured in water at 21.2 C.							
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	6.6		0.10	0.10		1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.							

*=This limit was used in the evaluation of the final result
Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-555-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7020347
LLI Group # 1382496
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/11/2013 10:15 by SM

Submitted: 04/12/2013 09:25
Reported: 05/03/2013 09:52

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

555-- SDG#: PH029-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Action Limit	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg		ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0496	JBQ	1.06	0.0345		1
11031	12378-PeCDD	40321-76-4	0.383	JQ	5.30	0.0572		1
11031	123478-HxCDD	39227-28-6	0.475	JB	5.30	0.0346		1
11031	123678-HxCDD	57653-85-7	1.35	JB	5.30	0.0354		1
11031	123789-HxCDD	19408-74-3	1.20	JQ	5.30	0.0335		1
11031	1234678-HpCDD	35822-46-9	28.5	B	5.30	0.0512		1
11031	OCDD	3268-87-9	296	B	10.6	0.0710		1
11031	2378-TCDF	51207-31-9	0.395	J	1.06	0.0790		1
11031	12378-PeCDF	57117-41-6	0.427	JBQ	5.30	0.0386		1
11031	23478-PeCDF	57117-31-4	0.849	JB	5.30	0.0364		1
11031	123478-HxCDF	70648-26-9	0.375	JB	5.30	0.0320		1
11031	123678-HxCDF	57117-44-9	0.388	JB	5.30	0.0303		1
11031	123789-HxCDF	72918-21-9	0.400	JB	5.30	0.0361		1
11031	234678-HxCDF	60851-34-5	0.433	JB	5.30	0.0315		1
11031	1234678-HpCDF	67562-39-4	4.16	JB	5.30	0.0600		1
11031	1234789-HpCDF	55673-89-7	0.360	JB	5.30	0.0702		1
11031	OCDF	39001-02-0	9.21	JB	10.6	0.0582		1
Toxic Equivalents	**EPA 1613B**		ng/kg		ng/kg	ng/kg	ng/kg	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	1.06					1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	86	25 - 164
13C12-12378-PeCDD	85	25 - 181
13C12-123478-HxCDD	83	32 - 141
13C12-123678-HxCDD	82	28 - 130
13C12-123789-HxCDD	82	28 - 130
13C12-1234678-HpCDD	75	23 - 140
13C12-OCDD	65	17 - 157
13C12-2378-TCDF	80	24 - 169
13C12-12378-PeCDF	84	24 - 185
13C12-23478-PeCDF	84	21 - 178
13C12-123478-HxCDF	87	26 - 152
13C12-123678-HxCDF	87	26 - 123
13C12-234678-HxCDF	86	28 - 136
13C12-123789-HxCDF	84	29 - 147
13C12-1234678-HpCDF	80	28 - 143
13C12-1234789-HpCDF	75	26 - 138
13C12-OCDF	66	17 - 157

Dioxins/Furans Data Qualifiers:

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

*=This limit was used in the evaluation of the final result
Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-555-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7020347
LLI Group # 1382496
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/11/2013 10:15 by SM

Submitted: 04/12/2013 09:25
Reported: 05/03/2013 09:52

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

555-- SDG#: PH029-03

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

F *Interference is present*
S *Saturation of detection signal*

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Analysis Report

Sample Description: SL-555-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7020347
LLI Group # 1382496
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/11/2013 10:15 by SM

Submitted: 04/12/2013 09:25
Reported: 05/03/2013 09:52

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

555-- SDG#: PH029-03

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13105SLA026	04/23/2013	10:22	Mark A Clark	100
10811	BNA Soil Microwave SIM	SW-846 3546	1	13105SLA026	04/15/2013	14:00	David S Schrum	1
10592	19a PCBs and PCTs 8082A	SW-846 8082A	1	131050020A	04/20/2013	05:00	Jessica L Miller	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	131050020A	04/16/2013	05:50	Roman Kuropatkin	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	131060013A	04/19/2013	18:32	Heather E Williams	100
12959	EFH soil ext.(microwave)	SW-846 3546	1	131060013A	04/16/2013	13:00	David S Schrum	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13106003	04/17/2013	22:34	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13106003	04/16/2013	13:00	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010C	1	131050637003	04/19/2013	18:03	Katlin N Cataldi	1
06944	Antimony	SW-846 6010C	1	131050637003	04/19/2013	18:03	Katlin N Cataldi	1
06935	Arsenic	SW-846 6010C	1	131050637003	04/19/2013	18:03	Katlin N Cataldi	1
06946	Barium	SW-846 6010C	1	131050637003	04/19/2013	18:03	Katlin N Cataldi	1
06947	Beryllium	SW-846 6010C	1	131050637003	04/19/2013	18:03	Katlin N Cataldi	1
07914	Boron	SW-846 6010C	1	131050637003	04/21/2013	15:21	Katlin N Cataldi	1
06949	Cadmium	SW-846 6010C	1	131050637003	04/19/2013	18:03	Katlin N Cataldi	1
01650	Calcium	SW-846 6010C	1	131050637003	04/19/2013	18:03	Katlin N Cataldi	1
06951	Chromium	SW-846 6010C	1	131050637003	04/19/2013	18:03	Katlin N Cataldi	1
06952	Cobalt	SW-846 6010C	1	131050637003	04/19/2013	18:03	Katlin N Cataldi	1
06953	Copper	SW-846 6010C	1	131050637003	04/19/2013	18:03	Katlin N Cataldi	1
01654	Iron	SW-846 6010C	1	131050637003	04/19/2013	18:03	Katlin N Cataldi	1
06955	Lead	SW-846 6010C	1	131050637003	04/19/2013	18:03	Katlin N Cataldi	1
01656	Lithium	SW-846 6010C	1	131050637003	04/19/2013	18:03	Katlin N Cataldi	1
01657	Magnesium	SW-846 6010C	1	131050637003	04/19/2013	18:03	Katlin N Cataldi	1
06958	Manganese	SW-846 6010C	1	131050637003	04/19/2013	18:03	Katlin N Cataldi	1
06960	Molybdenum	SW-846 6010C	1	131050637003	04/19/2013	18:03	Katlin N Cataldi	1
06961	Nickel	SW-846 6010C	1	131050637003	04/19/2013	18:03	Katlin N Cataldi	1
10145	Phosphorus	SW-846 6010C	1	131050637003	04/19/2013	18:03	Katlin N Cataldi	1
01662	Potassium	SW-846 6010C	1	131050637003	04/19/2013	18:03	Katlin N Cataldi	1
01667	Sodium	SW-846 6010C	1	131050637003	04/19/2013	18:03	Katlin N Cataldi	1
06969	Tin	SW-846 6010C	1	131050637003	04/19/2013	18:03	Katlin N Cataldi	1
06970	Titanium	SW-846 6010C	1	131050637003	04/19/2013	18:03	Katlin N Cataldi	1
06971	Vanadium	SW-846 6010C	1	131050637003	04/19/2013	18:03	Katlin N Cataldi	1
06972	Zinc	SW-846 6010C	1	131050637003	04/19/2013	18:03	Katlin N Cataldi	1
10146	Zirconium	SW-846 6010C	1	131050637003	04/19/2013	18:03	Katlin N Cataldi	1
06141	Selenium	SW-846 6020A	1	131050637003B	04/21/2013	00:33	David K Beck	2
06142	Silver	SW-846 6020A	1	131050637003A	04/21/2013	00:33	David K Beck	2
06144	Strontium	SW-846 6020A	1	131050637003A	04/21/2013	00:33	David K Beck	2
06145	Thallium	SW-846 6020A	1	131050637003A	04/21/2013	00:33	David K Beck	2

*=This limit was used in the evaluation of the final result
Shaded result = The results or reporting limit exceeded the client-provided action limit.

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Analysis Report

Sample Description: SL-555-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7020347
LLI Group # 1382496
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/11/2013 10:15 by SM

Submitted: 04/12/2013 09:25
Reported: 05/03/2013 09:52

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

555-- SDG#: PH029-03

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00159	3a Mercury 7471A	SW-846 7471B	1	131060638003	04/18/2013 07:43	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	131050637003	04/17/2013 09:07	Denise K Conners	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	131060638003	04/17/2013 11:40	Denise K Conners	1
00394	15a pH by 9045C	SW-846 9045D modified	1	13102039401A	04/12/2013 20:15	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13106162401B	04/16/2013 21:43	Scott W Freisher	1

*=This limit was used in the evaluation of the final result
Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-536-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7020348
LLI Group # 1382496
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/11/2013 12:55 by SM

Submitted: 04/12/2013 09:25
Reported: 05/03/2013 09:52

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

536-- SDG#: PH029-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		ug/kg		ug/kg	ug/kg	ug/kg	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.68		1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.34		1
12969	Anthracene	120-12-7	0.41	J	1.7	0.34		1
12969	Benzo(a)anthracene	56-55-3	2.3		1.7	0.68		1
12969	Benzo(a)pyrene	50-32-8	4.4		1.7	0.68		1
12969	Benzo(b)fluoranthene	205-99-2	9.9		1.7	0.68		1
12969	Benzo(e)pyrene	192-97-2	4.3	J	17	3.4		1
12969	Benzo(g,h,i)perylene	191-24-2	3.0		1.7	0.68		1
12969	Benzo(k)fluoranthene	207-08-9	3.2		1.7	0.68		1
12969	Butylbenzylphthalate	85-68-7	18	U	18	6.1		1
12969	Di-n-butylphthalate	84-74-2	7.6	J	18	6.1		1
12969	Chrysene	218-01-9	7.0		1.7	0.34		1
12969	Dibenz(a,h)anthracene	53-70-3	1.7	U	1.7	0.68		1
12969	Diethylphthalate	84-66-2	18	U	18	6.1		1
12969	Dimethylphthalate	131-11-3	18	U	18	6.1		1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	10	J	18	6.1		1
12969	Fluoranthene	206-44-0	10		1.7	0.68		1
12969	Fluorene	86-73-7	0.72	J	1.7	0.68		1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	2.4		1.7	0.68		1
12969	1-Methylnaphthalene	90-12-0	1.7	U	1.7	0.68		1
12969	2-Methylnaphthalene	91-57-6	1.7	U	1.7	0.68		1
12969	Naphthalene	91-20-3	1.2	J	1.7	0.68		1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.68		1
12969	Di-n-octylphthalate	117-84-0	18	U	18	6.1		1
12969	Phenanthrene	85-01-8	5.8		1.7	0.68		1
12969	Pyrene	129-00-0	11		1.7	0.68		1
Pesticides/PCBs	**SW-846 8082A**		ug/kg		ug/kg	ug/kg	ug/kg	
10592	Aroclor 5432	63496-31-1	33	U	33	10		1
10592	Aroclor 5442	12642-23-8	33	U	33	10		1
10592	Aroclor 5460	11126-42-4	33	U	33	10		1
10592	PCB-1016	12674-11-2	17	U	17	3.3		1
10592	PCB-1221	11104-28-2	17	U	17	5.1		1
10592	PCB-1232	11141-16-5	17	U	17	4.1		1
10592	PCB-1242	53469-21-9	17	U	17	3.3		1
10592	PCB-1248	12672-29-6	17	U	17	3.3		1
10592	PCB-1254	11097-69-1	17	U	17	4.4		1
10592	PCB-1260	11096-82-5	17	U	17	3.9		1
10592	PCB-1262	37324-23-5	17	U	17	3.3		1
10592	PCB-1268	11100-14-4	17	U	17	3.3		1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		mg/kg		mg/kg	mg/kg	mg/kg	
12952	EFH (C12-C14)	n.a.	5.1	U	5.1	2.0		1
12952	EFH (C15-C20)	n.a.	2.2	J	5.1	2.0		1
12952	EFH (C21-C30)	n.a.	18		5.1	2.0		1
12952	EFH (C30-C40)	n.a.	55		10	4.1		1
12952	EFH (C8-C11)	n.a.	5.1	U	5.1	2.0		1
Metals	**SW-846 6010C**		mg/kg		mg/kg	mg/kg	mg/kg	

*=This limit was used in the evaluation of the final result
Shaded result = The results or reporting limit exceeded the client-provided action limit.

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Analysis Report

Sample Description: SL-536-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7020348
LLI Group # 1382496
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/11/2013 12:55 by SM

Submitted: 04/12/2013 09:25
Reported: 05/03/2013 09:52

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

536-- SDG#: PH029-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	9,260		40.7	7.84		1
06944	Antimony	7440-36-0	4.07	U	4.07	0.508		1
06935	Arsenic	7440-38-2	3.54	J	4.07	0.335		1
06946	Barium	7440-39-3	61.4		1.02	0.0335		1
06947	Beryllium	7440-41-7	0.411	J	1.02	0.0681		1
07914	Boron	7440-42-8	2.81	J	10.2	0.843		1
06949	Cadmium	7440-43-9	0.162	J	1.02	0.0335		1
01650	Calcium	7440-70-2	2,690		20.3	4.09		1
06951	Chromium	7440-47-3	12.7		3.05	0.0894		1
06952	Cobalt	7440-48-4	3.50		1.02	0.0915		1
06953	Copper	7440-50-8	5.16		2.03	0.183		1
01654	Iron	7439-89-6	15,500		40.7	3.86		1
06955	Lead	7439-92-1	4.32		3.05	0.478		1
01656	Lithium	7439-93-2	22.0		4.1	0.56		1
01657	Magnesium	7439-95-4	3,870		10.2	1.76		1
06958	Manganese	7439-96-5	228		1.02	0.0843		1
06960	Molybdenum	7439-98-7	2.03	U	2.03	0.173		1
06961	Nickel	7440-02-0	7.27		2.03	0.112		1
10145	Phosphorus	7723-14-0	372		10.2	0.518		1
01662	Potassium	7440-09-7	3,030		102	13.7		1
01667	Sodium	7440-23-5	55.1	J	102	17.0		1
06969	Tin	7440-31-5	2.49	J	10.2	0.224		1
06970	Titanium	7440-32-6	875		1.02	0.173		1
06971	Vanadium	7440-62-2	24.9		1.02	0.112		1
06972	Zinc	7440-66-6	63.0		4.07	0.203		1
10146	Zirconium	7440-67-7	5.08	U	5.08	0.843		1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.407	U	0.407	0.102		2
06142	Silver	7440-22-4	0.203	U	0.203	0.0203		2
06144	Strontium	7440-24-6	11.0		0.407	0.0346		2
06145	Thallium	7440-28-0	0.204		0.203	0.0305		2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0113	J	0.0192	0.0099		1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	**Std. Units**	
00394	15a pH by 9045C	n.a.	7.42		0.0100	0.0100		1
	The pH was measured in water at 21.3 C.							
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	1.6		0.10	0.10		1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.							

*=This limit was used in the evaluation of the final result
Shaded result = The results or reporting limit exceeded the client-provided action limit.

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Analysis Report

Sample Description: SL-536-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7020348
LLI Group # 1382496
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/11/2013 12:55 by SM

Submitted: 04/12/2013 09:25
Reported: 05/03/2013 09:52

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

536-- SDG#: PH029-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Action Limit	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg		ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0447	JB	0.994	0.0276		1
11031	12378-PeCDD	40321-76-4	0.799	J	4.97	0.0431		1
11031	123478-HxCDD	39227-28-6	1.30	JB	4.97	0.0355		1
11031	123678-HxCDD	57653-85-7	3.42	JB	4.97	0.0376		1
11031	123789-HxCDD	19408-74-3	2.74	J	4.97	0.0346		1
11031	1234678-HpCDD	35822-46-9	78.1	B	4.97	0.0582		1
11031	OCDD	3268-87-9	722	B	9.94	0.0663		1
11031	2378-TCDF	51207-31-9	0.0619	J	0.994	0.0261		1
11031	12378-PeCDF	57117-41-6	0.192	JBQ	4.97	0.0200		1
11031	23478-PeCDF	57117-31-4	0.195	JB	4.97	0.0190		1
11031	123478-HxCDF	70648-26-9	0.465	JB	4.97	0.0290		1
11031	123678-HxCDF	57117-44-9	0.489	JB	4.97	0.0271		1
11031	123789-HxCDF	72918-21-9	0.158	JB	4.97	0.0309		1
11031	234678-HxCDF	60851-34-5	0.695	JB	4.97	0.0274		1
11031	1234678-HpCDF	67562-39-4	9.84	B	4.97	0.0228		1
11031	1234789-HpCDF	55673-89-7	0.861	JB	4.97	0.0306		1
11031	OCDF	39001-02-0	19.2	B	9.94	0.0536		1
Toxic Equivalents	**EPA 1613B**		ng/kg		ng/kg	ng/kg	ng/kg	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	2.94					1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	76	25 - 164
13C12-12378-PeCDD	85	25 - 181
13C12-123478-HxCDD	82	32 - 141
13C12-123678-HxCDD	82	28 - 130
13C12-123789-HxCDD	82	28 - 130
13C12-1234678-HpCDD	78	23 - 140
13C12-OCDD	70	17 - 157
13C12-2378-TCDF	72	24 - 169
13C12-12378-PeCDF	85	24 - 185
13C12-23478-PeCDF	85	21 - 178
13C12-123478-HxCDF	85	26 - 152
13C12-123678-HxCDF	87	26 - 123
13C12-234678-HxCDF	85	28 - 136
13C12-123789-HxCDF	83	29 - 147
13C12-1234678-HpCDF	89	28 - 143
13C12-1234789-HpCDF	77	26 - 138
13C12-OCDF	67	17 - 157

Dioxins/Furans Data Qualifiers:

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

*=This limit was used in the evaluation of the final result
Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-536-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7020348
LLI Group # 1382496
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/11/2013 12:55 by SM

Submitted: 04/12/2013 09:25
Reported: 05/03/2013 09:52

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

536-- SDG#: PH029-04

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

F *Interference is present*
S *Saturation of detection signal*

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Analysis Report

Sample Description: SL-536-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7020348
LLI Group # 1382496
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/11/2013 12:55 by SM

Submitted: 04/12/2013 09:25
Reported: 05/03/2013 09:52

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

536-- SDG#: PH029-04

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13105SLA026	04/23/2013	10:51	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	13105SLA026	04/15/2013	14:00	David S Schrum	1
10592	19a PCBs and PCTs 8082A	SW-846 8082A	1	131050020A	04/20/2013	05:18	Jessica L Miller	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	131050020A	04/16/2013	05:50	Roman Kuropatkin	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	131060013A	04/19/2013	17:08	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	131060013A	04/16/2013	13:00	David S Schrum	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13106003	04/17/2013	23:31	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13106003	04/16/2013	13:00	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010C	1	131050637003	04/19/2013	18:15	Katlin N Cataldi	1
06944	Antimony	SW-846 6010C	1	131050637003	04/19/2013	18:15	Katlin N Cataldi	1
06935	Arsenic	SW-846 6010C	1	131050637003	04/19/2013	18:15	Katlin N Cataldi	1
06946	Barium	SW-846 6010C	1	131050637003	04/19/2013	18:15	Katlin N Cataldi	1
06947	Beryllium	SW-846 6010C	1	131050637003	04/19/2013	18:15	Katlin N Cataldi	1
07914	Boron	SW-846 6010C	1	131050637003	04/21/2013	15:25	Katlin N Cataldi	1
06949	Cadmium	SW-846 6010C	1	131050637003	04/19/2013	18:15	Katlin N Cataldi	1
01650	Calcium	SW-846 6010C	1	131050637003	04/19/2013	18:15	Katlin N Cataldi	1
06951	Chromium	SW-846 6010C	1	131050637003	04/19/2013	18:15	Katlin N Cataldi	1
06952	Cobalt	SW-846 6010C	1	131050637003	04/19/2013	18:15	Katlin N Cataldi	1
06953	Copper	SW-846 6010C	1	131050637003	04/19/2013	18:15	Katlin N Cataldi	1
01654	Iron	SW-846 6010C	1	131050637003	04/19/2013	18:15	Katlin N Cataldi	1
06955	Lead	SW-846 6010C	1	131050637003	04/19/2013	18:15	Katlin N Cataldi	1
01656	Lithium	SW-846 6010C	1	131050637003	04/19/2013	18:15	Katlin N Cataldi	1
01657	Magnesium	SW-846 6010C	1	131050637003	04/19/2013	18:15	Katlin N Cataldi	1
06958	Manganese	SW-846 6010C	1	131050637003	04/19/2013	18:15	Katlin N Cataldi	1
06960	Molybdenum	SW-846 6010C	1	131050637003	04/19/2013	18:15	Katlin N Cataldi	1
06961	Nickel	SW-846 6010C	1	131050637003	04/19/2013	18:15	Katlin N Cataldi	1
10145	Phosphorus	SW-846 6010C	1	131050637003	04/19/2013	18:15	Katlin N Cataldi	1
01662	Potassium	SW-846 6010C	1	131050637003	04/19/2013	18:15	Katlin N Cataldi	1
01667	Sodium	SW-846 6010C	1	131050637003	04/19/2013	18:15	Katlin N Cataldi	1
06969	Tin	SW-846 6010C	1	131050637003	04/19/2013	18:15	Katlin N Cataldi	1
06970	Titanium	SW-846 6010C	1	131050637003	04/19/2013	18:15	Katlin N Cataldi	1
06971	Vanadium	SW-846 6010C	1	131050637003	04/19/2013	18:15	Katlin N Cataldi	1
06972	Zinc	SW-846 6010C	1	131050637003	04/19/2013	18:15	Katlin N Cataldi	1
10146	Zirconium	SW-846 6010C	1	131050637003	04/19/2013	18:15	Katlin N Cataldi	1
06141	Selenium	SW-846 6020A	1	131050637003B	04/21/2013	00:40	David K Beck	2
06142	Silver	SW-846 6020A	1	131050637003A	04/21/2013	00:40	David K Beck	2
06144	Strontium	SW-846 6020A	1	131050637003A	04/21/2013	00:40	David K Beck	2
06145	Thallium	SW-846 6020A	1	131050637003A	04/21/2013	00:40	David K Beck	2

*=This limit was used in the evaluation of the final result
Shaded result = The results or reporting limit exceeded the client-provided action limit.

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Analysis Report

Sample Description: SL-536-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7020348
LLI Group # 1382496
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/11/2013 12:55 by SM

Submitted: 04/12/2013 09:25
Reported: 05/03/2013 09:52

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

536-- SDG#: PH029-04

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00159	3a Mercury 7471A	SW-846 7471B	1	131060638003	04/18/2013 07:45	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	131050637003	04/17/2013 09:07	Denise K Conners	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	131060638003	04/17/2013 11:40	Denise K Conners	1
00394	15a pH by 9045C	SW-846 9045D modified	1	13102039401A	04/12/2013 20:15	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13106162401B	04/16/2013 21:43	Scott W Freisher	1

*=This limit was used in the evaluation of the final result
Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: EB-041113 Water
SSFL Phase 3 Subarea 7

LLI Sample # WW 7020349
LLI Group # 1382496
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/11/2013 15:15 by VC

Submitted: 04/12/2013 09:25
Reported: 05/03/2013 09:52

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

EB411 SDG#: PH029-05EB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Action Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/l**		**ug/l**	**ug/l**	**ug/l**	
12971	Acenaphthene	83-32-9	0.055	U	0.055	0.011		1
12971	Acenaphthylene	208-96-8	0.055	U	0.055	0.011		1
12971	Anthracene	120-12-7	0.055	U	0.055	0.011		1
12971	Benzo(a)anthracene	56-55-3	0.055	U	0.055	0.011		1
12971	Benzo(a)pyrene	50-32-8	0.055	U	0.055	0.011		1
12971	Benzo(b)fluoranthene	205-99-2	0.055	U	0.055	0.011		1
12971	Benzo(e)pyrene	192-97-2	0.055	U	0.055	0.011		1
12971	Benzo(g,h,i)perylene	191-24-2	0.055	U	0.055	0.011		1
12971	Benzo(k)fluoranthene	207-08-9	0.055	U	0.055	0.011		1
12971	Butylbenzylphthalate	85-68-7	1.1	U	1.1	0.055		1
12971	Di-n-butylphthalate	84-74-2	0.16	J	1.1	0.055		1
12971	Chrysene	218-01-9	0.055	U	0.055	0.011		1
12971	Dibenz(a,h)anthracene	53-70-3	0.055	U	0.055	0.011		1
12971	Diethylphthalate	84-66-2	0.24	J	1.1	0.055		1
12971	Dimethylphthalate	131-11-3	1.1	U	1.1	0.055		1
12971	Bis(2-Ethylhexyl)phthalate	117-81-7	0.11	J	1.1	0.055		1
12971	Fluoranthene	206-44-0	0.055	U	0.055	0.011		1
12971	Fluorene	86-73-7	0.055	U	0.055	0.011		1
12971	Indeno(1,2,3-cd)pyrene	193-39-5	0.055	U	0.055	0.011		1
12971	1-Methylnaphthalene	90-12-0	0.020	J	0.055	0.011		1
12971	2-Methylnaphthalene	91-57-6	0.027	J	0.055	0.011		1
12971	Naphthalene	91-20-3	0.13		0.055	0.033		1
12971	N-Nitrosodimethylamine	62-75-9	0.055	U	0.055	0.011		1
12971	Di-n-octylphthalate	117-84-0	1.1	U	1.1	0.055		1
12971	Phenanthrene	85-01-8	0.055	U	0.055	0.033		1
12971	Pyrene	129-00-0	0.055	U	0.055	0.011		1

The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance:
di-n-octylphthalate

Target analytes were detected in the method blank associated with the samples as noted on the QC Summary. Since the result is within the acceptance range allowed by the method, the data is reported.

GC Volatiles	**TPH GRO SW-8015B**		**ug/l**		**ug/l**	**ug/l**	**ug/l**	
08229	TPH-GRO S.CA water C5-C12	n.a.	50	U	50	20		1
Pesticides/PCBs	**SW-846 8082A**		**ug/l**		**ug/l**	**ug/l**	**ug/l**	
10591	Aroclor 5432	63496-31-1	0.43	U	0.43	0.086		1
10591	Aroclor 5442	12642-23-8	0.43	U	0.43	0.086		1
10591	Aroclor 5460	11126-42-4	0.43	U	0.43	0.086		1
10591	PCB-1016	12674-11-2	0.43	U	0.43	0.086		1
10591	PCB-1221	11104-28-2	0.43	U	0.43	0.086		1
10591	PCB-1232	11141-16-5	0.43	U	0.43	0.17		1
10591	PCB-1242	53469-21-9	0.43	U	0.43	0.086		1
10591	PCB-1248	12672-29-6	0.43	U	0.43	0.086		1
10591	PCB-1254	11097-69-1	0.43	U	0.43	0.086		1
10591	PCB-1260	11096-82-5	0.43	U	0.43	0.13		1

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Analysis Report

Sample Description: EB-041113 Water
SSFL Phase 3 Subarea 7

LLI Sample # WW 7020349
LLI Group # 1382496
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/11/2013 15:15 by VC

Submitted: 04/12/2013 09:25
Reported: 05/03/2013 09:52

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

EB411 SDG#: PH029-05EB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Action Limit	Dilution Factor
Pesticides/PCBs	**SW-846 8082A**		**ug/l**		**ug/l**	**ug/l**	**ug/l**	
10591	PCB-1262	37324-23-5	0.43	U	0.43	0.17		1
10591	PCB-1268	11100-14-4	0.43	U	0.43	0.14		1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/l**		**mg/l**	**mg/l**	**mg/l**	
10365	EFH (C12-C14)	n.a.	0.57	U	0.57	0.095		1
10365	EFH (C15-C20)	n.a.	0.57	U	0.57	0.095		1
10365	EFH (C21-C30)	n.a.	0.57	U	0.57	0.095		1
10365	EFH (C30 - C40)	n.a.	0.57	U	0.57	0.095		1
10365	EFH (C8-C11)	n.a.	0.57	U	0.57	0.095		1
	The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.							
Metals	**SW-846 6010C**		**mg/l**		**mg/l**	**mg/l**	**mg/l**	
01743	Aluminum	7429-90-5	0.400	U	0.400	0.0743		1
07044	Antimony	7440-36-0	0.0400	U	0.0400	0.0035		1
07035	Arsenic	7440-38-2	0.0400	U	0.0400	0.0068		1
07046	Barium	7440-39-3	0.0100	U	0.0100	0.00033		1
07047	Beryllium	7440-41-7	0.0100	U	0.0100	0.00067		1
08014	Boron	7440-42-8	0.100	U	0.100	0.0083		1
07049	Cadmium	7440-43-9	0.0100	U	0.0100	0.00036		1
01750	Calcium	7440-70-2	0.131	J	0.400	0.0640		1
07051	Chromium	7440-47-3	0.0300	U	0.0300	0.0011		1
07052	Cobalt	7440-48-4	0.0100	U	0.0100	0.00066		1
07053	Copper	7440-50-8	0.0035	J	0.0200	0.0021		1
01754	Iron	7439-89-6	0.400	U	0.400	0.0333		1
07055	Lead	7439-92-1	0.0300	U	0.0300	0.0051		1
01756	Lithium	7439-93-2	0.0400	U	0.0400	0.0060		1
01757	Magnesium	7439-95-4	0.200	U	0.200	0.0606		1
07058	Manganese	7439-96-5	0.0012	J	0.0100	0.00083		1
07060	Molybdenum	7439-98-7	0.0143	J	0.0200	0.0029		1
07061	Nickel	7440-02-0	0.0200	U	0.0200	0.0011		1
10143	Phosphorus	7723-14-0	0.200	U	0.200	0.0052		1
01762	Potassium	7440-09-7	1.00	U	1.00	0.145		1
01767	Sodium	7440-23-5	2.00	U	2.00	0.167		1
07069	Tin	7440-31-5	0.0024	J	0.0400	0.0022		1
07070	Titanium	7440-32-6	0.0200	U	0.0200	0.0017		1
07071	Vanadium	7440-62-2	0.0100	U	0.0100	0.0013		1
07072	Zinc	7440-66-6	0.0041	J	0.0400	0.0020		1
10144	Zirconium	7440-67-7	0.100	U	0.100	0.0092		1
	SW-846 6020A		**mg/l**		**mg/l**	**mg/l**	**mg/l**	
06041	Selenium	7782-49-2	0.0040	U	0.0040	0.00050		1
06042	Silver	7440-22-4	0.0010	U	0.0010	0.00010		1
06044	Strontium	7440-24-6	0.0020	U	0.0020	0.00022		1
06045	Thallium	7440-28-0	0.0010	U	0.0010	0.00015		1
	SW-846 7470A		**mg/l**		**mg/l**	**mg/l**	**mg/l**	
00259	3b Mercury 7470A	7439-97-6	0.00020	U	0.00020	0.000070		1

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Analysis Report

Sample Description: EB-041113 Water
SSFL Phase 3 Subarea 7

LLI Sample # WW 7020349
LLI Group # 1382496
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/11/2013 15:15 by VC

Submitted: 04/12/2013 09:25
Reported: 05/03/2013 09:52

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

EB411 SDG#: PH029-05EB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Limit of Quantitation*	As Received Method Detection Limit	Action Limit	Dilution Factor
Wet Chemistry	**SW-846 7199**		ug/l	ug/l	ug/l	ug/l	
06467	2b Chromium VI by EPA 7199	18540-29-9	10.0 U	10.0	5.0		1
	SW-846 9040C		Std. Units	Std. Units	Std. Units	Std. Units	
12152	28b. pH (9040B and 9040C)	n.a.	7.1	0.010	0.010		1

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Analysis Report

Sample Description: EB-041113 Water
SSFL Phase 3 Subarea 7

LLI Sample # WW 7020349
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Project Name: Phase 3 Subarea 7

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3201 Jermantown Road
Suite 400
Fairfax VA 22030

EB411 SDG#: PH029-05EB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received MRL*	As Received EDL	Action Limit	Dilution Factor
Dioxins/Furans	**EPA 1613B**		pg/l		pg/l	pg/l	pg/l	
10915	2378-TCDD	1746-01-6	1.95	U	1.95	0.220		1
10915	12378-PeCDD	40321-76-4	1.24	JBQ	9.74	0.256		1
10915	123478-HxCDD	39227-28-6	0.322	JQ	9.74	0.162		1
10915	123678-HxCDD	57653-85-7	0.314	JBQ	9.74	0.175		1
10915	123789-HxCDD	19408-74-3	0.463	JB	9.74	0.172		1
10915	1234678-HpCDD	35822-46-9	0.314	JBQ	9.74	0.183		1
10915	OCDD	3268-87-9	1.04	JBQ	19.5	0.406		1
10915	2378-TCDF	51207-31-9	1.95	U	1.95	0.192		1
10915	12378-PeCDF	57117-41-6	0.820	JBQ	9.74	0.160		1
10915	23478-PeCDF	57117-31-4	0.492	JBQ	9.74	0.145		1
10915	123478-HxCDF	70648-26-9	0.378	JB	9.74	0.102		1
10915	123678-HxCDF	57117-44-9	0.354	JBQ	9.74	0.0994		1
10915	123789-HxCDF	72918-21-9	0.272	JBQ	9.74	0.0946		1
10915	234678-HxCDF	60851-34-5	0.202	JBQ	9.74	0.0978		1
10915	1234678-HpCDF	67562-39-4	0.443	JBQ	9.74	0.0883		1
10915	1234789-HpCDF	55673-89-7	0.321	JB	9.74	0.102		1
10915	OCDF	39001-02-0	0.655	JB	19.5	0.292		1
Toxic Equivalents	**EPA 1613B**		pg/l		pg/l	pg/l	pg/l	
10915	TEQ WHO 2005 - EDLx0.0	n.a.	0.0875					1

Labeled Compounds	**%Rec**	**Windows**
13C12-2378-TCDD	76	25 - 164
13C12-12378-PeCDD	81	25 - 181
13C12-123478-HxCDD	80	32 - 141
13C12-123678-HxCDD	79	28 - 130
13C12-123789-HxCDD	77	28 - 130
13C12-1234678-HpCDD	76	23 - 140
13C12-OCDD	77	17 - 157
13C12-2378-TCDF	73	24 - 169
13C12-12378-PeCDF	78	24 - 185
13C12-23478-PeCDF	77	21 - 178
13C12-123478-HxCDF	78	26 - 152
13C12-123678-HxCDF	77	26 - 123
13C12-234678-HxCDF	76	28 - 136
13C12-123789-HxCDF	86	29 - 147
13C12-1234678-HpCDF	74	28 - 143
13C12-1234789-HpCDF	71	26 - 138
13C12-OCDF	71	17 - 157

Dioxins/Furans Data Qualifiers:

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

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Analysis Report

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Sample Description: EB-041113 Water
SSFL Phase 3 Subarea 7

LLI Sample # WW 7020349
LLI Group # 1382496
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/11/2013 15:15 by VC

Submitted: 04/12/2013 09:25
Reported: 05/03/2013 09:52

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

EB411 SDG#: PH029-05EB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received MRL*	As Received EDL	Action Limit	Dilution Factor

F *Interference is present*
S *Saturation of detection signal*

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Analysis Report

Sample Description: EB-041113 Water
SSFL Phase 3 Subarea 7

LLI Sample # WW 7020349
LLI Group # 1382496
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Project Name: Phase 3 Subarea 7

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

EB411 SDG#: PH029-05EB

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12971	7b SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13107WAH026	04/28/2013 22:53	Holly Berry	1
10466	BNA Water Extraction SIM	SW-846 3510C	1	13107WAH026	04/18/2013 01:30	Karen L Beyer	1
08229	11b TPH by EPA 8015B GRO	TPH GRO SW-8015B	1	13106A20A	04/16/2013 11:46	Catherine J Schwarz	1
01146	GC VOA Water Prep	SW-846 5030B	1	13106A20A	04/16/2013 11:46	Catherine J Schwarz	1
10591	21b PCBs and PCTs 8082A	SW-846 8082A	1	131060007A	04/19/2013 21:18	Monica M Souders	1
11121	PCB Waters Update IV Ext	SW-846 3510C	1	131060007A	04/16/2013 16:30	Seth A Farrier	1
10365	10b TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	131030007A	04/16/2013 01:49	Heather E Williams	1
11203	EFH Waters Extraction	SW-846 3510C	1	131030007A	04/14/2013 15:30	Elaine F Stoltzfus	1
10915	17b Dioxin/Furan by EPA 1613B	EPA 1613B	1	13106001	04/18/2013 22:51	Joseph D Anderson	1
10914	Dioxins/Furans in Water - SepF	EPA 1613B	1	13106001	04/17/2013 08:30	Ginelle L McQuaid	1
01743	Aluminum	SW-846 6010C	1	131080635001	04/23/2013 17:54	John P Hook	1
07044	Antimony	SW-846 6010C	1	131080635001	04/23/2013 17:54	John P Hook	1
07035	Arsenic	SW-846 6010C	1	131080635001	04/23/2013 17:54	John P Hook	1
07046	Barium	SW-846 6010C	1	131080635001	04/23/2013 17:54	John P Hook	1
07047	Beryllium	SW-846 6010C	1	131080635001	04/23/2013 17:54	John P Hook	1
08014	Boron	SW-846 6010C	1	131080635001	04/23/2013 17:54	John P Hook	1
07049	Cadmium	SW-846 6010C	1	131080635001	04/23/2013 17:54	John P Hook	1
01750	Calcium	SW-846 6010C	1	131080635001	04/23/2013 17:54	John P Hook	1
07051	Chromium	SW-846 6010C	1	131080635001	04/23/2013 17:54	John P Hook	1
07052	Cobalt	SW-846 6010C	1	131080635001	04/23/2013 17:54	John P Hook	1
07053	Copper	SW-846 6010C	1	131080635001	04/23/2013 17:54	John P Hook	1
01754	Iron	SW-846 6010C	1	131080635001	04/23/2013 17:54	John P Hook	1
07055	Lead	SW-846 6010C	1	131080635001	04/23/2013 17:54	John P Hook	1
01756	Lithium	SW-846 6010C	1	131080635001	04/23/2013 17:54	John P Hook	1
01757	Magnesium	SW-846 6010C	1	131080635001	04/23/2013 17:54	John P Hook	1
07058	Manganese	SW-846 6010C	1	131080635001	04/23/2013 17:54	John P Hook	1
07060	Molybdenum	SW-846 6010C	1	131080635001	04/23/2013 17:54	John P Hook	1
07061	Nickel	SW-846 6010C	1	131080635001	04/23/2013 17:54	John P Hook	1
10143	Phosphorus	SW-846 6010C	1	131080635001	04/23/2013 17:54	John P Hook	1
01762	Potassium	SW-846 6010C	1	131080635001	04/23/2013 17:54	John P Hook	1
01767	Sodium	SW-846 6010C	1	131080635001	04/23/2013 17:54	John P Hook	1
07069	Tin	SW-846 6010C	1	131080635001	04/23/2013 17:54	John P Hook	1
07070	Titanium	SW-846 6010C	1	131080635001	04/23/2013 17:54	John P Hook	1
07071	Vanadium	SW-846 6010C	1	131080635001	04/23/2013 17:54	John P Hook	1
07072	Zinc	SW-846 6010C	1	131080635001	04/23/2013 17:54	John P Hook	1

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Analysis Report

Sample Description: EB-041113 Water
SSFL Phase 3 Subarea 7

LLI Sample # WW 7020349
LLI Group # 1382496
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/11/2013 15:15 by VC

Submitted: 04/12/2013 09:25
Reported: 05/03/2013 09:52

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

EB411 SDG#: PH029-05EB

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10144	Zirconium	SW-846 6010C	1	131080635001	04/23/2013 17:54	John P Hook	1
06041	Selenium	SW-846 6020A	1	131080639002B	04/23/2013 22:22	David K Beck	1
06042	Silver	SW-846 6020A	1	131080639002A	04/23/2013 22:22	David K Beck	1
06044	Strontium	SW-846 6020A	1	131080639002A	04/23/2013 22:22	David K Beck	1
06045	Thallium	SW-846 6020A	1	131080639002A	04/23/2013 22:22	David K Beck	1
00259	3b Mercury 7470A	SW-846 7470A	2	131055713004	04/18/2013 11:13	Parker D Lindstrom	1
10635	WW SW846(IV) ICP Dig (tot rec)	SW-846 3005A	1	131080635001	04/19/2013 10:15	James L Mertz	1
10639	ICP/MS SW846 (IV) Water Digest	SW-846 3010A modified	1	131080639002	04/19/2013 10:15	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	131055713004	04/17/2013 16:35	Nelli S Markaryan	1
06467	2b Chromium VI by EPA 7199	SW-846 7199	1	13102621301B	04/12/2013 12:41	William L Hamaker Jr	1
12152	28b. pH (9040B and 9040C)	SW-846 9040C	1	13102007106A	04/13/2013 07:07	Clayton C Litchmore	1

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Sample Description: FB-041113 Water
SSFL Phase 3 Subarea 7

LLI Sample # WW 7020350
LLI Group # 1382496
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/11/2013 15:00 by VC

Submitted: 04/12/2013 09:25
Reported: 05/03/2013 09:52

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

FB411 SDG#: PH029-06FB*

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Action Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/l		ug/l	ug/l	ug/l	
10335	Acetone	67-64-1	20	U	20	6		1
10335	Acrolein	107-02-8	100	U	100	40		1
10335	Acrylonitrile	107-13-1	20	U	20	4		1
10335	t-Amyl methyl ether	994-05-8	5	U	5	0.8		1
10335	Benzene	71-43-2	5	U	5	0.5		1
10335	Bromobenzene	108-86-1	5	U	5	1		1
10335	Bromochloromethane	74-97-5	5	U	5	1		1
10335	Bromodichloromethane	75-27-4	5	U	5	1		1
10335	Bromoform	75-25-2	5	U	5	1		1
10335	Bromomethane	74-83-9	5	U	5	1		1
10335	2-Butanone	78-93-3	10	U	10	3		1
10335	t-Butyl alcohol	75-65-0	50	U	50	10		1
10335	n-Butylbenzene	104-51-8	5	U	5	1		1
10335	sec-Butylbenzene	135-98-8	5	U	5	1		1
10335	tert-Butylbenzene	98-06-6	5	U	5	1		1
10335	Carbon Disulfide	75-15-0	5	U	5	1		1
10335	Carbon Tetrachloride	56-23-5	5	U	5	1		1
10335	Chlorobenzene	108-90-7	5	U	5	0.8		1
10335	Chloroethane	75-00-3	5	U	5	1		1
10335	2-Chloroethyl Vinyl Ether	110-75-8	10	U	10	2		1
	2-Chloroethyl vinyl ether may not be recovered if acid was used to preserve this sample.							
10335	Chloroform	67-66-3	5	U	5	0.8		1
10335	1-Chlorohexane	544-10-5	5	U	5	1		1
10335	Chloromethane	74-87-3	5	U	5	1		1
10335	2-Chlorotoluene	95-49-8	5	U	5	1		1
10335	4-Chlorotoluene	106-43-4	5	U	5	1		1
10335	Chlorotrifluoroethene	79-38-9	5	U	5	2		1
10335	1,2-Dibromo-3-chloropropane	96-12-8	5	U	5	2		1
10335	Dibromochloromethane	124-48-1	5	U	5	1		1
10335	1,2-Dibromoethane	106-93-4	5	U	5	1		1
10335	Dibromomethane	74-95-3	5	U	5	1		1
10335	1,2-Dichlorobenzene	95-50-1	5	U	5	1		1
10335	1,3-Dichlorobenzene	541-73-1	5	U	5	1		1
10335	1,4-Dichlorobenzene	106-46-7	5	U	5	1		1
10335	Dichlorodifluoromethane	75-71-8	5	U	5	2		1
10335	1,1-Dichloroethane	75-34-3	5	U	5	1		1
10335	1,2-Dichloroethane	107-06-2	5	U	5	1		1
10335	1,1-Dichloroethene	75-35-4	5	U	5	0.8		1
10335	cis-1,2-Dichloroethene	156-59-2	5	U	5	0.8		1
10335	trans-1,2-Dichloroethene	156-60-5	5	U	5	0.8		1
10335	1,2-Dichloropropane	78-87-5	5	U	5	1		1
10335	1,3-Dichloropropane	142-28-9	5	U	5	1		1
10335	2,2-Dichloropropane	594-20-7	5	U	5	1		1
10335	1,1-Dichloropropene	563-58-6	5	U	5	1		1
10335	cis-1,3-Dichloropropene	10061-01-5	5	U	5	1		1
10335	trans-1,3-Dichloropropene	10061-02-6	5	U	5	1		1
10335	Ethyl t-butyl ether	637-92-3	5	U	5	0.8		1
10335	Ethylbenzene	100-41-4	5	U	5	0.8		1
10335	Freon 113	76-13-1	5	U	5	2		1
10335	Freon 133a	75-88-7	5	U	5	2		1

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Sample Description: FB-041113 Water
SSFL Phase 3 Subarea 7

LLI Sample # WW 7020350
LLI Group # 1382496
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/11/2013 15:00 by VC

Submitted: 04/12/2013 09:25
Reported: 05/03/2013 09:52

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

FB411 SDG#: PH029-06FB*

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Action Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**		**ug/l**	**ug/l**	**ug/l**	
10335	Hexachlorobutadiene	87-68-3	5	U	5	2		1
10335	2-Hexanone	591-78-6	10	U	10	3		1
10335	di-Isopropyl ether	108-20-3	5	U	5	0.8		1
10335	Isopropylbenzene	98-82-8	5	U	5	1		1
10335	p-Isopropyltoluene	99-87-6	5	U	5	1		1
10335	Methyl Iodide	74-88-4	5	U	5	1		1
10335	Methyl Tertiary Butyl Ether	1634-04-4	5	U	5	0.5		1
10335	4-Methyl-2-pentanone	108-10-1	10	U	10	3		1
10335	Methylene Chloride	75-09-2	2	J	5	2		1
10335	n-Propylbenzene	103-65-1	5	U	5	1		1
10335	Styrene	100-42-5	5	U	5	1		1
10335	1,1,1,2-Tetrachloroethane	630-20-6	5	U	5	1		1
10335	1,1,2,2-Tetrachloroethane	79-34-5	5	U	5	1		1
10335	Tetrachloroethene	127-18-4	5	U	5	0.8		1
10335	Toluene	108-88-3	5	U	5	0.7		1
10335	1,2,3-Trichlorobenzene	87-61-6	5	U	5	1		1
10335	1,2,4-Trichlorobenzene	120-82-1	5	U	5	1		1
10335	1,1,1-Trichloroethane	71-55-6	5	U	5	0.8		1
10335	1,1,2-Trichloroethane	79-00-5	5	U	5	0.8		1
10335	Trichloroethene	79-01-6	5	U	5	1		1
10335	Trichlorofluoromethane	75-69-4	5	U	5	2		1
10335	1,2,3-Trichloropropane	96-18-4	5	U	5	1		1
10335	1,2,4-Trimethylbenzene	95-63-6	5	U	5	1		1
10335	1,3,5-Trimethylbenzene	108-67-8	5	U	5	1		1
10335	Vinyl Acetate	108-05-4	10	U	10	2		1
10335	Vinyl Chloride	75-01-4	5	U	5	1		1
10335	m+p-Xylene	179601-23-1	5	U	5	0.8		1
10335	o-Xylene	95-47-6	5	U	5	0.8		1
GC/MS Volatiles	**SW-846 8260B SIM**		**ug/l**		**ug/l**	**ug/l**	**ug/l**	
00527	1,4-Dioxane	123-91-1	2.0	U	2.0	0.5		1
GC/MS Semivolatiles	**SW-846 8270D**		**ug/l**		**ug/l**	**ug/l**	**ug/l**	
10461	Acenaphthene	83-32-9	0.5	U	0.5	0.1		1
10461	Acenaphthylene	208-96-8	0.5	U	0.5	0.1		1
10461	Aniline	62-53-3	1	U	1	0.5		1
10461	Anthracene	120-12-7	0.5	U	0.5	0.1		1
10461	Benzidine	92-87-5	61	U	61	20		1
10461	Benzo(a)anthracene	56-55-3	0.5	U	0.5	0.1		1
10461	Benzo(a)pyrene	50-32-8	0.5	U	0.5	0.1		1
10461	Benzo(b)fluoranthene	205-99-2	0.5	U	0.5	0.1		1
10461	Benzo(g,h,i)perylene	191-24-2	0.5	U	0.5	0.1		1
10461	Benzo(k)fluoranthene	207-08-9	0.5	U	0.5	0.1		1
10461	Benzoic acid	65-85-0	15	U	15	6		1
10461	Benzyl alcohol	100-51-6	15	U	15	5		1
10461	1,1'-Biphenyl	92-52-4	1	U	1	0.5		1
10461	4-Bromophenyl-phenylether	101-55-3	1	U	1	0.5		1
10461	Butylbenzylphthalate	85-68-7	5	U	5	2		1
10461	Di-n-butylphthalate	84-74-2	5	U	5	2		1
10461	Carbazole	86-74-8	1	U	1	0.5		1

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Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: FB-041113 Water
SSFL Phase 3 Subarea 7

LLI Sample # WW 7020350
LLI Group # 1382496
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/11/2013 15:00 by VC

Submitted: 04/12/2013 09:25
Reported: 05/03/2013 09:52

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

FB411 SDG#: PH029-06FB*

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Action Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D**		**ug/l**		**ug/l**	**ug/l**	**ug/l**	
10461	4-Chloro-3-methylphenol	59-50-7	1	U	1	0.5		1
10461	4-Chloroaniline	106-47-8	1	U	1	0.5		1
10461	bis(2-Chloroethoxy)methane	111-91-1	1	U	1	0.5		1
10461	bis(2-Chloroethyl)ether	111-44-4	1	U	1	0.5		1
10461	bis(2-Chloroisopropyl)ether	39638-32-9	1	U	1	0.5		1
	Bis(2-chloroisopropyl) ether CAS #39638-32-9 and 2,2'-Oxybis(1-chloropropane) CAS #108-60-1 cannot be separated chromatographically. The reported result represents the combined total of both compounds.							
10461	2-Chloronaphthalene	91-58-7	1	U	1	0.4		1
10461	2-Chlorophenol	95-57-8	1	U	1	0.5		1
10461	4-Chlorophenyl-phenylether	7005-72-3	1	U	1	0.5		1
10461	Chrysene	218-01-9	0.5	U	0.5	0.1		1
10461	Dibenz(a,h)anthracene	53-70-3	0.5	U	0.5	0.1		1
10461	Dibenzofuran	132-64-9	1	U	1	0.5		1
10461	1,2-Dichlorobenzene	95-50-1	1	U	1	0.5		1
10461	1,3-Dichlorobenzene	541-73-1	1	U	1	0.5		1
10461	1,4-Dichlorobenzene	106-46-7	1	U	1	0.5		1
10461	3,3'-Dichlorobenzidine	91-94-1	5	U	5	2		1
10461	2,4-Dichlorophenol	120-83-2	1	U	1	0.5		1
10461	2,6-Dichlorophenol	87-65-0	1	U	1	0.5		1
10461	Diethylphthalate	84-66-2	5	U	5	2		1
10461	2,4-Dimethylphenol	105-67-9	1	U	1	0.5		1
10461	3,5-Dimethylphenol	108-68-9	10	U	10	3		1
10461	Dimethylphthalate	131-11-3	5	U	5	2		1
10461	4,6-Dinitro-2-methylphenol	534-52-1	15	U	15	5		1
10461	2,4-Dinitrophenol	51-28-5	31	U	31	10		1
10461	1,2-Diphenylhydrazine	122-66-7	1	U	1	0.5		1
10461	bis(2-Ethylhexyl)phthalate	117-81-7	5	U	5	2		1
10461	Fluoranthene	206-44-0	0.5	U	0.5	0.1		1
10461	Fluorene	86-73-7	0.5	U	0.5	0.1		1
10461	Hexachlorobenzene	118-74-1	0.5	U	0.5	0.1		1
10461	Hexachlorobutadiene	87-68-3	1	U	1	0.5		1
10461	Hexachlorocyclopentadiene	77-47-4	15	U	15	5		1
10461	Hexachloroethane	67-72-1	5	U	5	1		1
10461	Indeno(1,2,3-cd)pyrene	193-39-5	0.5	U	0.5	0.1		1
10461	Isophorone	78-59-1	1	U	1	0.5		1
10461	1-Methylnaphthalene	90-12-0	0.5	U	0.5	0.1		1
10461	2-Methylnaphthalene	91-57-6	0.5	U	0.5	0.1		1
10461	2-Methylphenol	95-48-7	1	U	1	0.5		1
10461	4-Methylphenol	106-44-5	1	U	1	0.5		1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.							
10461	Naphthalene	91-20-3	0.2	J	0.5	0.1		1
10461	NDPA as diphenylamine	n.a.	5	U	5	2		1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.							
10461	2-Nitroaniline	88-74-4	1	U	1	0.5		1
10461	3-Nitroaniline	99-09-2	1	U	1	0.5		1

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Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: FB-041113 Water
SSFL Phase 3 Subarea 7

LLI Sample # WW 7020350
LLI Group # 1382496
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/11/2013 15:00 by VC

Submitted: 04/12/2013 09:25
Reported: 05/03/2013 09:52

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

FB411 SDG#: PH029-06FB*

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Action Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D**		**ug/l**		**ug/l**	**ug/l**	**ug/l**	
10461	4-Nitroaniline	100-01-6	1	U	1	0.5		1
10461	Nitrobenzene	98-95-3	1	U	1	0.5		1
10461	2-Nitrophenol	88-75-5	1	U	1	0.5		1
10461	4-Nitrophenol	100-02-7	31	U	31	10		1
10461	N-Nitrosodimethylamine	62-75-9	5	U	5	2		1
10461	N-Nitroso-di-n-propylamine	621-64-7	1	U	1	0.5		1
10461	N-Nitrosodiphenylamine	86-30-6	1	U	1	0.5		1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.							
10461	Di-n-octylphthalate	117-84-0	5	U	5	2		1
10461	Pentachlorophenol	87-86-5	5	U	5	1		1
10461	Phenanthrene	85-01-8	0.5	U	0.5	0.1		1
10461	Phenol	108-95-2	1	U	1	0.5		1
10461	Pyrene	129-00-0	0.5	U	0.5	0.1		1
10461	Pyridine	110-86-1	5	U	5	2		1
10461	1,2,4-Trichlorobenzene	120-82-1	1	U	1	0.5		1
10461	2,4,5-Trichlorophenol	95-95-4	1	U	1	0.5		1
10461	2,4,6-Trichlorophenol	88-06-2	1	U	1	0.5		1
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/l**		**ug/l**	**ug/l**	**ug/l**	
12971	Acenaphthene	83-32-9	0.051	U	0.051	0.010		1
12971	Acenaphthylene	208-96-8	0.051	U	0.051	0.010		1
12971	Anthracene	120-12-7	0.051	U	0.051	0.010		1
12971	Benzo(a)anthracene	56-55-3	0.051	U	0.051	0.010		1
12971	Benzo(a)pyrene	50-32-8	0.051	U	0.051	0.010		1
12971	Benzo(b)fluoranthene	205-99-2	0.051	U	0.051	0.010		1
12971	Benzo(e)pyrene	192-97-2	0.051	U	0.051	0.010		1
12971	Benzo(g,h,i)perylene	191-24-2	0.051	U	0.051	0.010		1
12971	Benzo(k)fluoranthene	207-08-9	0.051	U	0.051	0.010		1
12971	Butylbenzylphthalate	85-68-7	1.0	U	1.0	0.051		1
12971	Di-n-butylphthalate	84-74-2	0.17	J	1.0	0.051		1
12971	Chrysene	218-01-9	0.051	U	0.051	0.010		1
12971	Dibenz(a,h)anthracene	53-70-3	0.051	U	0.051	0.010		1
12971	Diethylphthalate	84-66-2	0.18	J	1.0	0.051		1
12971	Dimethylphthalate	131-11-3	1.0	U	1.0	0.051		1
12971	Bis(2-Ethylhexyl)phthalate	117-81-7	0.082	J	1.0	0.051		1
12971	Fluoranthene	206-44-0	0.051	U	0.051	0.010		1
12971	Fluorene	86-73-7	0.051	U	0.051	0.010		1
12971	Indeno(1,2,3-cd)pyrene	193-39-5	0.051	U	0.051	0.010		1
12971	1-Methylnaphthalene	90-12-0	0.019	J	0.051	0.010		1
12971	2-Methylnaphthalene	91-57-6	0.024	J	0.051	0.010		1
12971	Naphthalene	91-20-3	0.17		0.051	0.031		1
12971	N-Nitrosodimethylamine	62-75-9	0.051	U	0.051	0.010		1
12971	Di-n-octylphthalate	117-84-0	1.0	U	1.0	0.051		1
12971	Phenanthrene	85-01-8	0.051	U	0.051	0.031		1
12971	Pyrene	129-00-0	0.051	U	0.051	0.010		1

The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance:

*=This limit was used in the evaluation of the final result
Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: FB-041113 Water
SSFL Phase 3 Subarea 7

LLI Sample # WW 7020350
LLI Group # 1382496
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/11/2013 15:00 by VC

Submitted: 04/12/2013 09:25
Reported: 05/03/2013 09:52

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

FB411 SDG#: PH029-06FB*

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Action Limit	Dilution Factor
	di-n-octylphthalate							

Target analytes were detected in the method blank associated with the samples as noted on the QC Summary. Since the result is within the acceptance range allowed by the method, the data is reported.

GC Volatiles	**TPH GRO SW-8015B**		**ug/l**		**ug/l**	**ug/l**	**ug/l**	
08229	TPH-GRO S.CA water C5-C12	n.a.	50	U	50	20		1
Explosives	**SW-846 8330A**		**ug/l**		**ug/l**	**ug/l**	**ug/l**	
10131	4-Amino-2,6-Dinitrotoluene	19406-51-0	0.60	U	0.60	0.30	10000000	1
10131	2-Amino-4,6-Dinitrotoluene	35572-78-2	0.60	U	0.60	0.20	10000000	1
10131	2,6-Diamino-4-nitrotoluene	59229-75-3	0.60	U	0.60	0.20	10000000	1
10131	2,4-Diamino-6-nitrotoluene	6629-29-4	0.60	U	0.60	0.20	10000000	1
10131	1,3-Dinitrobenzene	99-65-0	0.60	U	0.60	0.20	10000000	1
10131	2,4-Dinitrotoluene	121-14-2	0.60	U	0.60	0.20	10000000	1
10131	2,6-Dinitrotoluene	606-20-2	0.60	U	0.60	0.20	10000000	1
10131	HMX	2691-41-0	2.0	U	2.0	0.65	10000000	1
10131	Nitrobenzene	98-95-3	0.60	U	0.60	0.20	10000000	1
10131	Nitroglycerin	55-63-0	15	U	15	5.2	10000000	1
10131	2-Nitrotoluene	88-72-2	0.60	U	0.60	0.20	10000000	1
10131	3-Nitrotoluene	99-08-1	1.2	U	1.2	0.40	10000000	1
10131	4-Nitrotoluene	99-99-0	1.2	U	1.2	0.60	10000000	1
10131	PETN	78-11-5	18	U	18	6.0	10000000	1
10131	RDX	121-82-4	0.60	U	0.60	0.20	10000000	1
10131	Tetryl	479-45-8	0.60	U	0.60	0.40	10000000	1
10131	1,3,5-Trinitrobenzene	99-35-4	0.60	U	0.60	0.20	10000000	1
10131	2,4,6-Trinitrotoluene	118-96-7	0.60	U	0.60	0.20	10000000	1

The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken:
The sample was re-extracted outside the method required holding time and the QC is compliant. All results are reported from the first trial. Similar results were obtained in both trials.

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Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: FB-041113 Water
SSFL Phase 3 Subarea 7

LLI Sample # WW 7020350
LLI Group # 1382496
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/11/2013 15:00 by VC

Submitted: 04/12/2013 09:25
Reported: 05/03/2013 09:52

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

FB411 SDG#: PH029-06FB*

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Action Limit	Dilution Factor
Herbicides	**SW-846 8151A**		**ug/l**		**ug/l**	**ug/l**	**ug/l**	
10407	2,4-D	94-75-7	0.49	U	0.49	0.16		1
10407	Dalapon	75-99-0	1.2	U	1.2	0.25		1
10407	2,4-DB	94-82-6	0.98	U	0.98	0.29		1
10407	Dicamba	1918-00-9	0.29	U	0.29	0.078		1
10407	Dinoseb	88-85-7	0.49	U	0.49	0.12		1
	The QC window for dinoseb is advisory due to the erratic performance of the analyte using this method.							
10407	2,4-DP (Dichlorprop)	120-36-5	0.49	U	0.49	0.16		1
10407	MCPA	94-74-6	200	U	200	49		1
10407	MCPP	93-65-2	200	U	200	49		1
10407	2,4,5-T	93-76-5	0.049	U	0.049	0.015		1
10407	2,4,5-TP	93-72-1	0.049	U	0.049	0.0098		1
HPLC Organics	**SW-846 8315A**		**ug/l**		**ug/l**	**ug/l**	**ug/l**	
04144	19b Formaldehyde 8315A	50-00-0	50	U	50	30		1
Perchlorate	**SW-846 6850 1/2007**		**ug/l**		**ug/l**	**ug/l**	**ug/l**	
06386	6b Perchlorate (Method 6850)	14797-73-0	1.0	U	1.0	0.20		1
Pesticides/PCBs	**SW-846 8081B**		**ug/l**		**ug/l**	**ug/l**	**ug/l**	
10589	Aldrin	309-00-2	0.0081	U	0.0081	0.0016		1
10589	Alpha BHC	319-84-6	0.0081	U	0.0081	0.0024		1
10589	Beta BHC	319-85-7	0.0081	U	0.0081	0.0028		1
10589	Gamma BHC - Lindane	58-89-9	0.0081	U	0.0081	0.0016		1
10589	Chlordane	57-74-9	0.40	U	0.40	0.13		1
10589	p,p-DDD	72-54-8	0.016	U	0.016	0.0040		1
10589	p,p-DDE	72-55-9	0.016	U	0.016	0.0040		1
10589	p,p-DDT	50-29-3	0.016	U	0.016	0.0042		1
10589	Delta BHC	319-86-8	0.0081	U	0.0081	0.0028		1
10589	Dieldrin	60-57-1	0.016	U	0.016	0.0043		1
10589	Endosulfan I	959-98-8	0.0081	U	0.0081	0.0035		1
10589	Endosulfan II	33213-65-9	0.016	U	0.016	0.012		1
10589	Endosulfan Sulfate	1031-07-8	0.016	U	0.016	0.0047		1
10589	Endrin	72-20-8	0.016	U	0.016	0.0066		1
10589	Endrin Aldehyde	7421-93-4	0.081	U	0.081	0.016		1
10589	Endrin Ketone	53494-70-5	0.016	U	0.016	0.0040		1
10589	Heptachlor	76-44-8	0.0081	U	0.0081	0.0016		1
10589	Heptachlor Epoxide	1024-57-3	0.0081	U	0.0081	0.0019		1
10589	Methoxychlor	72-43-5	0.081	U	0.081	0.024		1
10589	Mirex	2385-85-5	0.20	U	0.20	0.069		1
10589	Toxaphene	8001-35-2	2.4	U	2.4	0.81		1
Pesticides/PCBs	**SW-846 8082A**		**ug/l**		**ug/l**	**ug/l**	**ug/l**	
10591	Aroclor 5432	63496-31-1	0.40	U	0.40	0.081		1
10591	Aroclor 5442	12642-23-8	0.40	U	0.40	0.081		1
10591	Aroclor 5460	11126-42-4	0.40	U	0.40	0.081		1
10591	PCB-1016	12674-11-2	0.40	U	0.40	0.081		1
10591	PCB-1221	11104-28-2	0.40	U	0.40	0.081		1
10591	PCB-1232	11141-16-5	0.40	U	0.40	0.16		1

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Sample Description: FB-041113 Water
SSFL Phase 3 Subarea 7

LLI Sample # WW 7020350
LLI Group # 1382496
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/11/2013 15:00 by VC

Submitted: 04/12/2013 09:25
Reported: 05/03/2013 09:52

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

FB411 SDG#: PH029-06FB*

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Action Limit	Dilution Factor
Pesticides/PCBs	**SW-846 8082A**		**ug/l**		**ug/l**	**ug/l**	**ug/l**	
10591	PCB-1242	53469-21-9	0.40	U	0.40	0.081		1
10591	PCB-1248	12672-29-6	0.40	U	0.40	0.081		1
10591	PCB-1254	11097-69-1	0.40	U	0.40	0.081		1
10591	PCB-1260	11096-82-5	0.40	U	0.40	0.12		1
10591	PCB-1262	37324-23-5	0.40	U	0.40	0.16		1
10591	PCB-1268	11100-14-4	0.40	U	0.40	0.13		1
GC Miscellaneous	**SW-846 8015C**		**ug/l**		**ug/l**	**ug/l**	**ug/l**	
10603	Ethanol	64-17-5	1,000	U	1,000	200		1
10603	Isopropanol	67-63-0	1,000	U	1,000	200		1
10603	Methanol	67-56-1	1,000	U	1,000	200		1
GC Miscellaneous	**SW-846 8015C Feb 2007 Rev 3**		**mg/l**		**mg/l**	**mg/l**	**mg/l**	
12926	Diethylene glycol	111-46-6	10	U	10	8.0		1
12926	Ethylene glycol	107-21-1	10	U	10	8.0		1
12926	Propylene glycol	57-55-6	10	U	10	8.0		1
12926	Triethylene glycol	112-27-6	10	U	10	8.0		1
GC Petroleum Hydrocarbons	**SW-846 8015B**		**mg/l**		**mg/l**	**mg/l**	**mg/l**	
10319	m-Terphenyl	92-06-8	0.0048	U	0.0048	0.0019		1
10319	o-Terphenyl	84-15-1	0.0048	U	0.0048	0.0019		1
10319	p-Terphenyl	92-94-4	0.0048	U	0.0048	0.0019		1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/l**		**mg/l**	**mg/l**	**mg/l**	
10365	EFH (C12-C14)	n.a.	0.57	U	0.57	0.095		1
10365	EFH (C15-C20)	n.a.	0.57	U	0.57	0.095		1
10365	EFH (C21-C30)	n.a.	0.57	U	0.57	0.095		1
10365	EFH (C30 - C40)	n.a.	0.57	U	0.57	0.095		1
10365	EFH (C8-C11)	n.a.	0.57	U	0.57	0.095		1
	The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.							
Metals	**SW-846 6010C**		**mg/l**		**mg/l**	**mg/l**	**mg/l**	
01743	Aluminum	7429-90-5	0.400	U	0.400	0.0743		1
07044	Antimony	7440-36-0	0.0400	U	0.0400	0.0035		1
07035	Arsenic	7440-38-2	0.0400	U	0.0400	0.0068		1
07046	Barium	7440-39-3	0.0100	U	0.0100	0.00033		1
07047	Beryllium	7440-41-7	0.0100	U	0.0100	0.00067		1
08014	Boron	7440-42-8	0.100	U	0.100	0.0083		1
07049	Cadmium	7440-43-9	0.0100	U	0.0100	0.00036		1
01750	Calcium	7440-70-2	0.400	U	0.400	0.0640		1
07051	Chromium	7440-47-3	0.0300	U	0.0300	0.0011		1
07052	Cobalt	7440-48-4	0.0100	U	0.0100	0.00066		1
07053	Copper	7440-50-8	0.0036	J	0.0200	0.0021		1
01754	Iron	7439-89-6	0.400	U	0.400	0.0333		1
07055	Lead	7439-92-1	0.0300	U	0.0300	0.0051		1

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Analysis Report

Sample Description: FB-041113 Water
SSFL Phase 3 Subarea 7

LLI Sample # WW 7020350
LLI Group # 1382496
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/11/2013 15:00 by VC

Submitted: 04/12/2013 09:25
Reported: 05/03/2013 09:52

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

FB411 SDG#: PH029-06FB*

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Limit of Quantitation*	As Received Method Detection Limit	Action Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/l**	**mg/l**	**mg/l**	**mg/l**	
01756	Lithium	7439-93-2	0.0400 U	0.0400	0.0060		1
01757	Magnesium	7439-95-4	0.200 U	0.200	0.0606		1
07058	Manganese	7439-96-5	0.0100 U	0.0100	0.00083		1
07060	Molybdenum	7439-98-7	0.0036 J	0.0200	0.0029		1
07061	Nickel	7440-02-0	0.0200 U	0.0200	0.0011		1
10143	Phosphorus	7723-14-0	0.200 U	0.200	0.0052		1
01762	Potassium	7440-09-7	1.00 U	1.00	0.145		1
01767	Sodium	7440-23-5	2.00 U	2.00	0.167		1
07069	Tin	7440-31-5	0.0400 U	0.0400	0.0022		1
07070	Titanium	7440-32-6	0.0200 U	0.0200	0.0017		1
07071	Vanadium	7440-62-2	0.0100 U	0.0100	0.0013		1
07072	Zinc	7440-66-6	0.0400 U	0.0400	0.0020		1
10144	Zirconium	7440-67-7	0.100 U	0.100	0.0092		1
	SW-846 6020A		**mg/l**	**mg/l**	**mg/l**	**mg/l**	
06041	Selenium	7782-49-2	0.0040 U	0.0040	0.00050		1
06042	Silver	7440-22-4	0.0010 U	0.0010	0.00010		1
06044	Strontium	7440-24-6	0.0020 U	0.0020	0.00022		1
06045	Thallium	7440-28-0	0.0010 U	0.0010	0.00015		1
	SW-846 7470A		**mg/l**	**mg/l**	**mg/l**	**mg/l**	
00259	3b Mercury 7470A	7439-97-6	0.00020 U	0.00020	0.000070		1
Wet Chemistry	**EPA 300.0**		**mg/l**	**mg/l**	**mg/l**	**mg/l**	
01505	1b Anions by 300.0-Bromide	24959-67-9	0.50 U	0.50	0.40		1
00224	1b Anions by 300.0-Chloride	16887-00-6	0.40 U	0.40	0.20		1
01504	1b Anions by 300.0-Fluoride	16984-48-8	0.10 U	0.10	0.080		1
00368	1b Anions by 300.0-Nitrate	14797-55-8	0.10 U	0.10	0.050		1
01506	1b Anions by 300.0-Nitrite	14797-65-0	0.10 U	0.10	0.080		1
07322	1b Anions by 300.0-Orthophosph	7723-14-0	0.50 U	0.50	0.20		1
00228	1b Anions by 300.0-Sulfate	14808-79-8	1.0 U	1.0	0.30		1
	SW-846 7199		**ug/l**	**ug/l**	**ug/l**	**ug/l**	
06467	2b Chromium VI by EPA 7199	18540-29-9	10.0 U	10.0	5.0		1
	SW-846 9012B		**mg/l**	**mg/l**	**mg/l**	**mg/l**	
08255	16b Cyanide by EPA 9012B	57-12-5	0.010 U	0.010	0.0050		1
	EPA 350.3		**mg/l**	**mg/l**	**mg/l**	**mg/l**	
12677	15b Ammonia by EPA 350.3	7664-41-7	0.050 J	0.20	0.050		1
	SW-846 9040C		**Std. Units**	**Std. Units**	**Std. Units**	**Std. Units**	
12152	28b. pH (9040B and 9040C)	n.a.	7.5	0.010	0.010		1

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Analysis Report

Sample Description: FB-041113 Water
SSFL Phase 3 Subarea 7

LLI Sample # WW 7020350
LLI Group # 1382496
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/11/2013 15:00 by VC

Submitted: 04/12/2013 09:25
Reported: 05/03/2013 09:52

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

FB411 SDG#: PH029-06FB*

CAT No.	Analysis Name	CAS Number	As Received Result		As Received MRL*	As Received EDL	Action Limit	Dilution Factor
Dioxins/Furans	**EPA 1613B**		pg/l		pg/l	pg/l	pg/l	
10915	2378-TCDD	1746-01-6	1.95	U	1.95	0.210		1
10915	12378-PeCDD	40321-76-4	9.76	U	9.76	0.212		1
10915	123478-HxCDD	39227-28-6	0.125	J	9.76	0.122		1
10915	123678-HxCDD	57653-85-7	9.76	U	9.76	0.138		1
10915	123789-HxCDD	19408-74-3	0.134	JBQ	9.76	0.131		1
10915	1234678-HpCDD	35822-46-9	0.402	JBQ	9.76	0.163		1
10915	OCDD	3268-87-9	19.5	U	19.5	0.372		1
10915	2378-TCDF	51207-31-9	1.95	U	1.95	0.173		1
10915	12378-PeCDF	57117-41-6	0.398	JBQ	9.76	0.138		1
10915	23478-PeCDF	57117-31-4	0.316	JBQ	9.76	0.135		1
10915	123478-HxCDF	70648-26-9	0.324	JB	9.76	0.0890		1
10915	123678-HxCDF	57117-44-9	0.221	JB	9.76	0.0881		1
10915	123789-HxCDF	72918-21-9	0.211	JBQ	9.76	0.0982		1
10915	234678-HxCDF	60851-34-5	0.149	JB	9.76	0.0887		1
10915	1234678-HpCDF	67562-39-4	0.254	JBQ	9.76	0.0678		1
10915	1234789-HpCDF	55673-89-7	9.76	U	9.76	0.0836		1
10915	OCDF	39001-02-0	0.840	JBQ	19.5	0.275		1
Toxic Equivalents	**EPA 1613B**		pg/l		pg/l	pg/l	pg/l	
10915	TEQ WHO 2005 - EDLx0.0	n.a.	0.0820					1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	74	25 - 164
13C12-12378-PeCDD	80	25 - 181
13C12-123478-HxCDD	81	32 - 141
13C12-123678-HxCDD	80	28 - 130
13C12-123789-HxCDD	78	28 - 130
13C12-1234678-HpCDD	74	23 - 140
13C12-OCDD	72	17 - 157
13C12-2378-TCDF	75	24 - 169
13C12-12378-PeCDF	79	24 - 185
13C12-23478-PeCDF	78	21 - 178
13C12-123478-HxCDF	79	26 - 152
13C12-123678-HxCDF	78	26 - 123
13C12-234678-HxCDF	76	28 - 136
13C12-123789-HxCDF	75	29 - 147
13C12-1234678-HpCDF	73	28 - 143
13C12-1234789-HpCDF	70	26 - 138
13C12-OCDF	65	17 - 157

Dioxins/Furans Data Qualifiers:

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

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Analysis Report

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Sample Description: FB-041113 Water
SSFL Phase 3 Subarea 7

LLI Sample # WW 7020350
LLI Group # 1382496
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/11/2013 15:00 by VC

Submitted: 04/12/2013 09:25
Reported: 05/03/2013 09:52

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

FB411 SDG#: PH029-06FB*

CAT No.	Analysis Name	CAS Number	As Received Result	As Received MRL*	As Received EDL	Action Limit	Dilution Factor

F *Interference is present*
S *Saturation of detection signal*

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Analysis Report

Sample Description: FB-041113 Water
SSFL Phase 3 Subarea 7

LLI Sample # WW 7020350
LLI Group # 1382496
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/11/2013 15:00 by VC

Submitted: 04/12/2013 09:25
Reported: 05/03/2013 09:52

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

FB411 SDG#: PH029-06FB*

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	12b Volatile Organics EPA8260B	SW-846 8260B	1	Y131141AA	04/24/2013 12:38	Angela D Sneeringer	1
00527	13b 1,4-Dioxane by 8260B SIM	SW-846 8260B SIM	1	E131052AA	04/15/2013 20:16	Sara E Johnson	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	E131052AA	04/15/2013 20:16	Sara E Johnson	1
01163	GC/MS VOA Water Prep	SW-846 5030B	2	Y131141AA	04/24/2013 12:38	Angela D Sneeringer	1
10461	8b SVOCs by EPA 8270D	SW-846 8270D	1	13107WAI026	04/23/2013 18:48	Chad A Moline	1
12971	7b SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13107WAH026	04/28/2013 23:20	Holly Berry	1
10466	BNA Water Extraction SIM	SW-846 3510C	1	13107WAH026	04/18/2013 01:30	Karen L Beyer	1
11010	8270D BNA Extraction	SW-846 3510C	1	13107WAI026	04/18/2013 01:30	Karen L Beyer	1
08229	11b TPH by EPA 8015B GRO	TPH GRO SW-8015B	1	13106A20A	04/16/2013 12:08	Catherine J Schwarz	1
01146	GC VOA Water Prep	SW-846 5030B	1	13106A20A	04/16/2013 12:08	Catherine J Schwarz	1
10131	18b Energetics by 8330A	SW-846 8330A	1	131060031A	04/18/2013 11:17	James H Place	1
04144	19b Formaldehyde 8315A	SW-846 8315A	1	131020013A	04/16/2013 17:20	James H Place	1
10407	24b Herbicides by EPA 8151A	SW-846 8151A	1	131060002A	04/17/2013 12:11	Matthew S Listner	1
06386	6b Perchlorate (Method 6850)	SW-846 6850 1/2007	1	131060040A	04/17/2013 16:40	Richard A Shober	1
10589	22b Pesticides by EPA 8081B	SW-846 8081B	1	131060008A	04/19/2013 13:13	Jamie L Brillhart	1
10591	21b PCBs and PCTs 8082A	SW-846 8082A	1	131060007A	04/19/2013 21:37	Monica M Souders	1
11121	PCB Waters Update IV Ext	SW-846 3510C	1	131060007A	04/16/2013 16:30	Seth A Farrier	1
11120	Pesticide Waters Update IV Ext	SW-846 3510C	1	131060008A	04/16/2013 16:30	Seth A Farrier	1
00816	Water Sample Herbicide Extract	SW-846 8151A	1	131060002A	04/16/2013 11:10	Katheryne V Sponheimer	1
01013	Formaldehyde Extraction	SW-846 8315A	1	131020013A	04/13/2013 01:45	Olivia Arosemena	1
11122	Energetics Extraction	SW-846 8330	1	131060031A	04/17/2013 12:30	Edwin Ortiz	1
10603	14b Alcohols by EPA 8015C	SW-846 8015C	1	131080026A	04/19/2013 04:02	Elizabeth J Marin	1
12926	20b Glycols by EPA 8015C	SW-846 8015C Feb 2007 Rev 3	1	131130028A	04/23/2013 22:54	Tyler O Griffin	1
10319	23b Terphenyls by 8015B	SW-846 8015B	1	131080007A	04/23/2013 20:17	Glorines Suarez-Rivera	1
10365	10b TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	131030007A	04/16/2013 02:10	Heather E Williams	1
11203	EFH Waters Extraction	SW-846 3510C	1	131030007A	04/14/2013 15:30	Elaine F Stoltzfus	1

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Analysis Report

Sample Description: FB-041113 Water
SSFL Phase 3 Subarea 7

LLI Sample # WW 7020350
LLI Group # 1382496
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/11/2013 15:00 by VC

Submitted: 04/12/2013 09:25
Reported: 05/03/2013 09:52

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

FB411 SDG#: PH029-06FB*

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
10304	Terphenyls water prep	SW-846 3510C	1	131080007A	04/18/2013	16:30	Seth A Farrier	1
10915	17b Dioxin/Furan by EPA 1613B	EPA 1613B	1	13106001	04/18/2013	23:48	Joseph D Anderson	1
10914	Dioxins/Furans in Water - SepF	EPA 1613B	1	13106001	04/17/2013	08:30	Ginelle L McQuaid	1
01743	Aluminum	SW-846 6010C	1	131080635001	04/23/2013	17:57	John P Hook	1
07044	Antimony	SW-846 6010C	1	131080635001	04/23/2013	17:57	John P Hook	1
07035	Arsenic	SW-846 6010C	1	131080635001	04/23/2013	17:57	John P Hook	1
07046	Barium	SW-846 6010C	1	131080635001	04/23/2013	17:57	John P Hook	1
07047	Beryllium	SW-846 6010C	1	131080635001	04/23/2013	17:57	John P Hook	1
08014	Boron	SW-846 6010C	1	131080635001	04/23/2013	17:57	John P Hook	1
07049	Cadmium	SW-846 6010C	1	131080635001	04/23/2013	17:57	John P Hook	1
01750	Calcium	SW-846 6010C	1	131080635001	04/23/2013	17:57	John P Hook	1
07051	Chromium	SW-846 6010C	1	131080635001	04/23/2013	17:57	John P Hook	1
07052	Cobalt	SW-846 6010C	1	131080635001	04/23/2013	17:57	John P Hook	1
07053	Copper	SW-846 6010C	1	131080635001	04/23/2013	17:57	John P Hook	1
01754	Iron	SW-846 6010C	1	131080635001	04/23/2013	17:57	John P Hook	1
07055	Lead	SW-846 6010C	1	131080635001	04/23/2013	17:57	John P Hook	1
01756	Lithium	SW-846 6010C	1	131080635001	04/23/2013	17:57	John P Hook	1
01757	Magnesium	SW-846 6010C	1	131080635001	04/23/2013	17:57	John P Hook	1
07058	Manganese	SW-846 6010C	1	131080635001	04/23/2013	17:57	John P Hook	1
07060	Molybdenum	SW-846 6010C	1	131080635001	04/23/2013	17:57	John P Hook	1
07061	Nickel	SW-846 6010C	1	131080635001	04/23/2013	17:57	John P Hook	1
10143	Phosphorus	SW-846 6010C	1	131080635001	04/23/2013	17:57	John P Hook	1
01762	Potassium	SW-846 6010C	1	131080635001	04/23/2013	17:57	John P Hook	1
01767	Sodium	SW-846 6010C	1	131080635001	04/23/2013	17:57	John P Hook	1
07069	Tin	SW-846 6010C	1	131080635001	04/23/2013	17:57	John P Hook	1
07070	Titanium	SW-846 6010C	1	131080635001	04/23/2013	17:57	John P Hook	1
07071	Vanadium	SW-846 6010C	1	131080635001	04/23/2013	17:57	John P Hook	1
07072	Zinc	SW-846 6010C	1	131080635001	04/23/2013	17:57	John P Hook	1
10144	Zirconium	SW-846 6010C	1	131080635001	04/23/2013	17:57	John P Hook	1
06041	Selenium	SW-846 6020A	1	131080639002B	04/23/2013	22:24	David K Beck	1
06042	Silver	SW-846 6020A	1	131080639002A	04/23/2013	22:24	David K Beck	1
06044	Strontium	SW-846 6020A	1	131080639002A	04/23/2013	22:24	David K Beck	1
06045	Thallium	SW-846 6020A	1	131080639002A	04/23/2013	22:24	David K Beck	1
00259	3b Mercury 7470A	SW-846 7470A	2	131055713004	04/18/2013	11:15	Parker D Lindstrom	1
10635	WW SW846(IV) ICP Dig (tot rec)	SW-846 3005A	1	131080635001	04/19/2013	10:15	James L Mertz	1
10639	ICP/MS SW846 (IV) Water Digest	SW-846 3010A modified	1	131080639002	04/19/2013	10:15	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	131055713004	04/17/2013	16:35	Nelli S Markaryan	1
01505	1b Anions by 300.0-Bromide	EPA 300.0	1	13102655901A	04/12/2013	16:50	Christopher D Meeks	1
00224	1b Anions by 300.0-Chloride	EPA 300.0	1	13102655901A	04/12/2013	16:50	Christopher D Meeks	1
01504	1b Anions by 300.0-Fluoride	EPA 300.0	1	13102655901A	04/12/2013	16:50	Christopher D Meeks	1
00368	1b Anions by 300.0-Nitrate	EPA 300.0	1	13102655901A	04/12/2013	16:50	Christopher D Meeks	1

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Analysis Report

Sample Description: FB-041113 Water
SSFL Phase 3 Subarea 7

LLI Sample # WW 7020350
LLI Group # 1382496
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/11/2013 15:00 by VC

Submitted: 04/12/2013 09:25
Reported: 05/03/2013 09:52

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

FB411 SDG#: PH029-06FB*

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01506	1b Anions by 300.0-Nitrite	EPA 300.0	1	13102655901A	04/13/2013 11:00	Christopher D Meeks	1
07322	1b Anions by 300.0-Orthophosph	EPA 300.0	1	13102655901A	04/12/2013 16:50	Christopher D Meeks	1
00228	1b Anions by 300.0-Sulfate	EPA 300.0	1	13102655901A	04/12/2013 16:50	Christopher D Meeks	1
06467	2b Chromium VI by EPA 7199	SW-846 7199	1	13102621301B	04/12/2013 12:28	William L Hamaker Jr	1
08255	16b Cyanide by EPA 9012B	SW-846 9012B	1	13107117102A	04/18/2013 08:57	K Robert Caulfeild-James	1
08256	Cyanide Water Distillation	SW-846 9012B	1	13107117102A	04/17/2013 11:30	Nancy J Shoop	1
12677	15b Ammonia by EPA 350.3	EPA 350.3	1	13105008201A	04/15/2013 22:33	Michelle L Lalli	1
12152	28b. pH (9040B and 9040C)	SW-846 9040C	1	13102007106A	04/13/2013 07:04	Clayton C Litchmore	1

*=This limit was used in the evaluation of the final result
Shaded result = The results or reporting limit exceeded the client-provided action limit.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1382496
Reported: 05/03/13 at 09:52 AM

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: E131052AA	Sample number(s): 7020350									
1,4-Dioxane	2.0	U	2.0	0.5	ug/l	116	119	80-123	2	30
Batch number: Y131141AA	Sample number(s): 7020350									
Acetone	20	U	20.	6	ug/l	83	79	35-181	5	30
Acrolein	100 U		100.	40	ug/l	73	78	46-146	8	30
Acrylonitrile	20	U	20.	4	ug/l	99	94	61-130	5	30
t-Amyl methyl ether	5	U	5.	0.8	ug/l	101	102	66-120	1	30
Benzene	5	U	5.	0.5	ug/l	100	101	77-121	1	30
Bromobenzene	5	U	5.	1	ug/l	100	100	80-120	0	30
Bromochloromethane	5	U	5.	1	ug/l	104	104	80-121	0	30
Bromodichloromethane	5	U	5.	1	ug/l	100	99	73-120	1	30
Bromoform	5	U	5.	1	ug/l	99	98	61-120	1	30
Bromomethane	5	U	5.	1	ug/l	79	78	51-120	2	30
2-Butanone	10	U	10.	3	ug/l	97	94	57-141	3	30
t-Butyl alcohol	50	U	50.	10	ug/l	90	85	75-120	5	30
n-Butylbenzene	5	U	5.	1	ug/l	102	103	73-130	1	30
sec-Butylbenzene	5	U	5.	1	ug/l	103	104	74-124	0	30
tert-Butylbenzene	5	U	5.	1	ug/l	101	103	80-120	2	30
Carbon Disulfide	5	U	5.	1	ug/l	74	74	68-121	0	30
Carbon Tetrachloride	5	U	5.	1	ug/l	100	100	65-137	0	30
Chlorobenzene	5	U	5.	0.8	ug/l	104	104	80-120	0	30
Chloroethane	5	U	5.	1	ug/l	81	79	60-120	3	30
2-Chloroethyl Vinyl Ether	10	U	10.	2	ug/l	106	103	52-127	3	30
Chloroform	5	U	5.	0.8	ug/l	102	103	77-122	1	30
1-Chlorohexane	5	U	5.	1	ug/l	100	100	70-130	1	30
Chloromethane	5	U	5.	1	ug/l	82	81	54-123	2	30
2-Chlorotoluene	5	U	5.	1	ug/l	100	102	80-120	2	30
4-Chlorotoluene	5	U	5.	1	ug/l	101	102	80-120	1	30
Chlorotrifluoroethene	5	U	5.	2	ug/l	60	58	47-120	3	30
1,2-Dibromo-3-chloropropane	5	U	5.	2	ug/l	96	94	56-120	2	30
Dibromochloromethane	5	U	5.	1	ug/l	101	101	72-120	1	30
1,2-Dibromoethane	5	U	5.	1	ug/l	104	105	76-120	1	30
Dibromomethane	5	U	5.	1	ug/l	105	105	80-120	0	30
1,2-Dichlorobenzene	5	U	5.	1	ug/l	105	104	80-120	0	30
1,3-Dichlorobenzene	5	U	5.	1	ug/l	103	103	80-120	1	30
1,4-Dichlorobenzene	5	U	5.	1	ug/l	103	103	80-120	0	30
Dichlorodifluoromethane	5	U	5.	2	ug/l	82	83	35-122	1	30
1,1-Dichloroethane	5	U	5.	1	ug/l	102	103	79-120	1	30
1,2-Dichloroethane	5	U	5.	1	ug/l	106	106	64-130	0	30
1,1-Dichloroethene	5	U	5.	0.8	ug/l	90	91	76-124	0	30
cis-1,2-Dichloroethene	5	U	5.	0.8	ug/l	103	104	80-120	0	30
trans-1,2-Dichloroethene	5	U	5.	0.8	ug/l	100	100	80-120	0	30

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1382496
Reported: 05/03/13 at 09:52 AM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
1,2-Dichloropropane	5	U	5.	1	ug/l	106	106	80-120	0	30
1,3-Dichloropropane	5	U	5.	1	ug/l	102	102	80-120	0	30
2,2-Dichloropropane	5	U	5.	1	ug/l	96	98	67-124	2	30
1,1-Dichloropropene	5	U	5.	1	ug/l	100	101	80-120	1	30
cis-1,3-Dichloropropene	5	U	5.	1	ug/l	98	98	78-120	1	30
trans-1,3-Dichloropropene	5	U	5.	1	ug/l	87	88	66-124	1	30
Ethyl t-butyl ether	5	U	5.	0.8	ug/l	103	102	66-120	1	30
Ethylbenzene	5	U	5.	0.8	ug/l	102	103	79-120	1	30
Freon 113	5	U	5.	2	ug/l	90	89	69-128	1	30
Freon 133a	5	U	5.	2	ug/l	96	96	64-120	1	30
Hexachlorobutadiene	5	U	5.	2	ug/l	95	100	58-120	5	30
2-Hexanone	10	U	10.	3	ug/l	93	92	59-125	1	30
di-Isopropyl ether	5	U	5.	0.8	ug/l	98	98	65-120	0	30
Isopropylbenzene	5	U	5.	1	ug/l	104	106	77-120	2	30
p-Isopropyltoluene	5	U	5.	1	ug/l	104	104	77-121	1	30
Methyl Iodide	5	U	5.	1	ug/l	86	86	71-122	0	30
Methyl Tertiary Butyl Ether	5	U	5.	0.5	ug/l	102	101	68-121	2	30
4-Methyl-2-pentanone	10	U	10.	3	ug/l	97	97	65-122	1	30
Methylene Chloride	5	U	5.	2	ug/l	97	96	84-118	0	30
n-Propylbenzene	5	U	5.	1	ug/l	102	103	77-130	1	30
Styrene	5	U	5.	1	ug/l	104	105	77-120	0	30
1,1,1,2-Tetrachloroethane	5	U	5.	1	ug/l	103	103	79-120	1	30
1,1,2,2-Tetrachloroethane	5	U	5.	1	ug/l	99	99	70-129	0	30
Tetrachloroethene	5	U	5.	0.8	ug/l	103	105	79-120	2	30
Toluene	5	U	5.	0.7	ug/l	101	102	79-120	1	30
1,2,3-Trichlorobenzene	5	U	5.	1	ug/l	98	102	67-120	4	30
1,2,4-Trichlorobenzene	5	U	5.	1	ug/l	100	101	65-120	2	30
1,1,1-Trichloroethane	5	U	5.	0.8	ug/l	96	98	66-126	2	30
1,1,2-Trichloroethane	5	U	5.	0.8	ug/l	105	104	80-120	1	30
Trichloroethene	5	U	5.	1	ug/l	103	104	80-120	1	30
Trichlorofluoromethane	5	U	5.	2	ug/l	88	87	65-130	1	30
1,2,3-Trichloropropane	5	U	5.	1	ug/l	99	98	76-120	1	30
1,2,4-Trimethylbenzene	5	U	5.	1	ug/l	102	103	69-122	1	30
1,3,5-Trimethylbenzene	5	U	5.	1	ug/l	102	103	68-124	1	30
Vinyl Acetate	10	U	10.	2	ug/l	87	94	57-147	8	30
Vinyl Chloride	5	U	5.	1	ug/l	85	87	63-120	3	30
m+p-Xylene	5	U	5.	0.8	ug/l	104	105	77-120	1	30
o-Xylene	5	U	5.	0.8	ug/l	103	104	77-120	1	30

Batch number: 13105SLA026 Sample number(s): 7020345-7020348

Acenaphthene	1.7	U	1.7	0.67	ug/kg	120*	69-114
Acenaphthylene	1.7	U	1.7	0.33	ug/kg	111	71-113
Anthracene	1.7	U	1.7	0.33	ug/kg	107	75-116
Benzo(a)anthracene	1.7	U	1.7	0.67	ug/kg	104	76-115
Benzo(a)pyrene	1.7	U	1.7	0.67	ug/kg	105	76-117
Benzo(b)fluoranthene	1.7	U	1.7	0.67	ug/kg	113	77-129
Benzo(e)pyrene	17	U	17.	3.3	ug/kg	92	70-130
Benzo(g,h,i)perylene	1.7	U	1.7	0.67	ug/kg	104	64-120
Benzo(k)fluoranthene	1.7	U	1.7	0.67	ug/kg	102	71-120
Butylbenzylphthalate	18	U	18.	6.0	ug/kg	107	65-131
Di-n-butylphthalate	18	U	18.	6.0	ug/kg	109	67-140
Chrysene	1.7	U	1.7	0.33	ug/kg	105	78-111
Dibenz(a,h)anthracene	1.7	U	1.7	0.67	ug/kg	103	65-124
Diethylphthalate	18	U	18.	6.0	ug/kg	125	68-125
Dimethylphthalate	18	U	18.	6.0	ug/kg	110	70-130
Bis(2-Ethylhexyl)phthalate	18	U	18.	6.0	ug/kg	107	67-143

*- Outside of specification
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(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1382496
Reported: 05/03/13 at 09:52 AM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Fluoranthene	1.7	U	1.7	0.67	ug/kg	105		68-119		
Fluorene	1.7	U	1.7	0.67	ug/kg	120		75-123		
Indeno(1,2,3-cd)pyrene	1.7	U	1.7	0.67	ug/kg	103		66-122		
1-Methylnaphthalene	1.7	U	1.7	0.67	ug/kg	104		74-113		
2-Methylnaphthalene	1.7	U	1.7	0.67	ug/kg	108		78-121		
Naphthalene	1.7	U	1.7	0.67	ug/kg	103		64-120		
N-Nitrosodimethylamine	1.7	U	1.7	0.67	ug/kg	87		30-125		
Di-n-octylphthalate	18	U	18.	6.0	ug/kg	105		57-133		
Phenanthrene	1.7	U	1.7	0.67	ug/kg	101		72-110		
Pyrene	1.7	U	1.7	0.67	ug/kg	111		71-120		
Batch number: 13107WAH026	Sample number(s): 7020349-7020350									
Acenaphthene	0.050	U	0.050	0.010	ug/l	105	106	65-124	1	30
Acenaphthylene	0.050	U	0.050	0.010	ug/l	107	109	72-113	2	30
Anthracene	0.050	U	0.050	0.010	ug/l	108	111	70-117	2	30
Benzo(a)anthracene	0.050	U	0.050	0.010	ug/l	110	111	75-115	1	30
Benzo(a)pyrene	0.050	U	0.050	0.010	ug/l	116	119	72-120	3	30
Benzo(b)fluoranthene	0.050	U	0.050	0.010	ug/l	113	115	74-130	2	30
Benzo(e)pyrene	0.050	U	0.050	0.010	ug/l	96	97	70-130	1	30
Benzo(g,h,i)perylene	0.050	U	0.050	0.010	ug/l	106	104	63-121	1	30
Benzo(k)fluoranthene	0.050	U	0.050	0.010	ug/l	112	114	74-118	1	30
Butylbenzylphthalate	1.0	U	1.0	0.050	ug/l	89	88	40-138	1	30
Di-n-butylphthalate	1.0	U	1.0	0.050	ug/l	114	119	70-145	5	30
Chrysene	0.050	U	0.050	0.010	ug/l	108	109	75-112	0	30
Dibenz(a,h)anthracene	0.050	U	0.050	0.010	ug/l	104	101	66-122	2	30
Diethylphthalate	1.0	U	1.0	0.050	ug/l	107	115	74-129	7	30
Dimethylphthalate	1.0	U	1.0	0.050	ug/l	100	98	40-119	2	30
Bis(2-Ethylhexyl)phthalate	0.059	J	1.0	0.050	ug/l	107	84	70-143	24	30
Fluoranthene	0.050	U	0.050	0.010	ug/l	110	113	73-116	3	30
Fluorene	0.050	U	0.050	0.010	ug/l	105	106	74-115	1	30
Indeno(1,2,3-cd)pyrene	0.050	U	0.050	0.010	ug/l	102	101	66-122	1	30
1-Methylnaphthalene	0.050	U	0.050	0.010	ug/l	113	114	71-120	1	30
2-Methylnaphthalene	0.050	U	0.050	0.010	ug/l	112	114	74-119	2	30
Naphthalene	0.050	U	0.050	0.030	ug/l	106	109	67-118	2	30
N-Nitrosodimethylamine	0.050	U	0.050	0.010	ug/l	86	89	36-120	3	30
Di-n-octylphthalate	1.0	U	1.0	0.050	ug/l	53*	56*	57-145	6	30
Phenanthrene	0.050	U	0.050	0.030	ug/l	105	107	72-109	2	30
Pyrene	0.050	U	0.050	0.010	ug/l	111	110	71-116	1	30
Batch number: 13107WAI026	Sample number(s): 7020350									
Acenaphthene	0.5	U	0.5	0.1	ug/l	105	104	79-110	1	30
Acenaphthylene	0.5	U	0.5	0.1	ug/l	110	109	84-125	2	30
Aniline	1	U	1.	0.5	ug/l	68	66	50-107	4	30
Anthracene	0.5	U	0.5	0.1	ug/l	107	108	82-116	1	30
Benzidine	60	U	60.	20	ug/l	49	41	28-80	17	30
Benzo(a)anthracene	0.5	U	0.5	0.1	ug/l	115	114	79-119	1	30
Benzo(a)pyrene	0.5	U	0.5	0.1	ug/l	113	114	82-116	1	30
Benzo(b)fluoranthene	0.5	U	0.5	0.1	ug/l	109	109	78-119	0	30
Benzo(g,h,i)perylene	0.5	U	0.5	0.1	ug/l	114	114	81-121	0	30
Benzo(k)fluoranthene	0.5	U	0.5	0.1	ug/l	107	108	81-122	1	30
Benzoic acid	15	U	15.	6	ug/l	15	22	10-69	37*	30
Benzyl alcohol	15	U	15.	5	ug/l	92	94	60-106	2	30
1,1'-Biphenyl	1	U	1.	0.5	ug/l	100	98	75-107	2	30
4-Bromophenyl-phenylether	1	U	1.	0.5	ug/l	104	103	75-115	1	30
Butylbenzylphthalate	5	U	5.	2	ug/l	110	111	77-115	1	30
Di-n-butylphthalate	5	U	5.	2	ug/l	104	106	80-115	2	30

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1382496
Reported: 05/03/13 at 09:52 AM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Carbazole	1	U	1.	0.5	ug/l	107	107	81-114	0	30
4-Chloro-3-methylphenol	1	U	1.	0.5	ug/l	102	102	77-119	0	30
4-Chloroaniline	1	U	1.	0.5	ug/l	76	75	43-110	2	30
bis(2-Chloroethoxy)methane	1	U	1.	0.5	ug/l	99	98	76-112	0	30
bis(2-Chloroethyl)ether	1	U	1.	0.5	ug/l	100	100	73-112	1	30
bis(2-Chloroisopropyl)ether	1	U	1.	0.5	ug/l	99	98	60-115	1	30
2-Chloronaphthalene	1	U	1.	0.4	ug/l	104	103	56-135	1	30
2-Chlorophenol	1	U	1.	0.5	ug/l	101	102	76-111	1	30
4-Chlorophenyl-phenylether	1	U	1.	0.5	ug/l	101	99	77-114	2	30
Chrysene	0.5	U	0.5	0.1	ug/l	111	109	76-116	2	30
Dibenz(a,h)anthracene	0.5	U	0.5	0.1	ug/l	118	118	83-124	0	30
Dibenzofuran	1	U	1.	0.5	ug/l	103	102	81-110	1	30
1,2-Dichlorobenzene	1	U	1.	0.5	ug/l	97	97	65-107	0	30
1,3-Dichlorobenzene	1	U	1.	0.5	ug/l	95	95	61-111	0	30
1,4-Dichlorobenzene	1	U	1.	0.5	ug/l	95	95	61-109	0	30
3,3'-Dichlorobenzidine	5	U	5.	2	ug/l	97	96	47-108	1	30
2,4-Dichlorophenol	1	U	1.	0.5	ug/l	101	102	84-114	1	30
2,6-Dichlorophenol	1	U	1.	0.5	ug/l	102	104	80-116	2	30
Diethylphthalate	5	U	5.	2	ug/l	101	101	74-115	0	30
2,4-Dimethylphenol	1	U	1.	0.5	ug/l	100	101	78-117	1	30
3,5-Dimethylphenol	10	U	10.	3	ug/l					
Dimethylphthalate	5	U	5.	2	ug/l	94	97	50-127	3	30
4,6-Dinitro-2-methylphenol	15	U	15.	5	ug/l	95	100	76-128	4	30
2,4-Dinitrophenol	30	U	30.	10	ug/l	84	90	45-146	7	30
1,2-Diphenylhydrazine	1	U	1.	0.5	ug/l	105	106	68-127	0	30
bis(2-Ethylhexyl)phthalate	5	U	5.	2	ug/l	113	114	78-117	1	30
Fluoranthene	0.5	U	0.5	0.1	ug/l	108	109	81-121	1	30
Fluorene	0.5	U	0.5	0.1	ug/l	104	104	80-114	0	30
Hexachlorobenzene	0.5	U	0.5	0.1	ug/l	100	102	75-119	2	30
Hexachlorobutadiene	1	U	1.	0.5	ug/l	95	93	61-115	2	30
Hexachlorocyclopentadiene	15	U	15.	5	ug/l	83	87	30-124	4	30
Hexachloroethane	5	U	5.	1	ug/l	90	90	55-109	0	30
Indeno(1,2,3-cd)pyrene	0.5	U	0.5	0.1	ug/l	116	116	83-121	0	30
Isophorone	1	U	1.	0.5	ug/l	101	102	74-117	0	30
1-Methylnaphthalene	0.5	U	0.5	0.1	ug/l	104	104	79-111	0	30
2-Methylnaphthalene	0.5	U	0.5	0.1	ug/l	95	95	80-115	0	30
2-Methylphenol	1	U	1.	0.5	ug/l	95	97	65-115	2	30
4-Methylphenol	1	U	1.	0.5	ug/l	95	96	54-112	1	30
Naphthalene	0.5	U	0.5	0.1	ug/l	97	96	75-108	0	30
NDPA as diphenylamine	5	U	5.	2	ug/l	104	104	70-130	1	30
2-Nitroaniline	1	U	1.	0.5	ug/l	112	114	84-122	2	30
3-Nitroaniline	1	U	1.	0.5	ug/l	88	88	80-120	1	30
4-Nitroaniline	1	U	1.	0.5	ug/l	90	88	61-110	3	30
Nitrobenzene	1	U	1.	0.5	ug/l	101	102	72-116	0	30
2-Nitrophenol	1	U	1.	0.5	ug/l	105	111	84-118	5	30
4-Nitrophenol	30	U	30.	10	ug/l	78*	82*	13-71	5	30
N-Nitroso-di-n-propylamine	1	U	1.	0.5	ug/l	101	100	69-110	0	30
N-Nitrosodimethylamine	5	U	5.	2	ug/l	78	79	37-83	1	30
N-Nitrosodiphenylamine	1	U	1.	0.5	ug/l	104	104	80-115	1	30
Di-n-octylphthalate	5	U	5.	2	ug/l	110	112	72-129	2	30
Pentachlorophenol	5	U	5.	1	ug/l	101	103	55-131	2	30
Phenanthrene	0.5	U	0.5	0.1	ug/l	96	96	76-113	0	30
Phenol	1	U	1.	0.5	ug/l	64	64	26-68	0	30
Pyrene	0.5	U	0.5	0.1	ug/l	104	103	81-112	1	30
Pyridine	5	U	5.	2	ug/l	79	68	13-97	14	30
1,2,4-Trichlorobenzene	1	U	1.	0.5	ug/l	97	96	71-112	1	30

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1382496
Reported: 05/03/13 at 09:52 AM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
2,4,5-Trichlorophenol	1	U	1.	0.5	ug/l	106	107	80-114	0	30
2,4,6-Trichlorophenol	1	U	1.	0.5	ug/l	110	111	84-119	1	30
Batch number: 13106A20A	Sample number(s): 7020349-7020350									
TPH-GRO S.CA water C5-C12	50	U	50.	20	ug/l	99	98	75-135	2	30
Batch number: 131060031A	Sample number(s): 7020350									
4-Amino-2,6-Dinitrotoluene	0.60	U	0.60	0.30	ug/l	95	107	80-120	12	30
2-Amino-4,6-Dinitrotoluene	0.60	U	0.60	0.20	ug/l	64*	72*	74-104	12	30
2,6-Diamino-4-nitrotoluene	0.60	U	0.60	0.20	ug/l	97	96	50-122	1	30
2,4-Diamino-6-nitrotoluene	0.60	U	0.60	0.20	ug/l	96	95	50-122	1	30
1,3-Dinitrobenzene	0.60	U	0.60	0.20	ug/l	75*	84	76-116	12	30
2,4-Dinitrotoluene	0.60	U	0.60	0.20	ug/l	67*	76	76-104	13	30
2,6-Dinitrotoluene	0.60	U	0.60	0.20	ug/l	88	103	79-114	16	30
HMX	2.0	U	2.0	0.65	ug/l	66*	76	73-104	14	30
Nitrobenzene	0.60	U	0.60	0.20	ug/l	71	80	71-111	11	30
Nitroglycerin	15	U	15.	5.2	ug/l	68*	78*	83-104	14	30
2-Nitrotoluene	0.60	U	0.60	0.20	ug/l	71*	80	78-102	12	30
3-Nitrotoluene	1.2	U	1.2	0.40	ug/l	72*	82	81-107	13	30
4-Nitrotoluene	1.2	U	1.2	0.60	ug/l	75*	84	76-105	12	30
PETN	18	U	18.	6.0	ug/l	74*	86*	88-128	14	30
RDX	0.60	U	0.60	0.20	ug/l	72*	82	74-107	12	30
Tetryl	0.60	U	0.60	0.40	ug/l	72	84	31-148	15	30
1,3,5-Trinitrobenzene	0.60	U	0.60	0.20	ug/l	73*	84	80-111	13	30
2,4,6-Trinitrotoluene	0.60	U	0.60	0.20	ug/l	71*	82	76-109	14	30
Batch number: 131020013A	Sample number(s): 7020350									
19b Formaldehyde 8315A	50	U	50.	30	ug/l	94	73	69-130	25	30
Batch number: 131060002A	Sample number(s): 7020350									
2,4-D	0.50	U	0.50	0.16	ug/l	108	115	68-155	6	30
Dalapon	1.3	U	1.3	0.25	ug/l	91	87	39-115	4	30
2,4-DB	1.0	U	1.0	0.30	ug/l	104	112	50-163	7	30
Dicamba	0.30	U	0.30	0.080	ug/l	98	99	55-163	1	30
Dinoseb	0.50	U	0.50	0.12	ug/l	101	95	16-163	6	30
2,4-DP (Dichlorprop)	0.50	U	0.50	0.16	ug/l	103	105	89-162	2	30
MCPA	200 U		200.	50	ug/l	107	109	68-154	2	30
MCPP	200 U		200.	50	ug/l	107	114	46-173	6	30
2,4,5-T	0.050	U	0.050	0.015	ug/l	107	112	55-169	4	30
2,4,5-TP	0.050	U	0.050	0.010	ug/l	98	100	58-155	2	30
Batch number: 131060040A	Sample number(s): 7020350									
6b Perchlorate (Method 6850)	1.0	U	1.0	0.20	ug/l	100		85-115		
Batch number: 131050020A	Sample number(s): 7020345-7020348									
Aroclor 5432	33	U	33.	10	ug/kg					
Aroclor 5442	33	U	33.	10	ug/kg	70	75	36-106	6	30
Aroclor 5460	33	U	33.	10	ug/kg					
PCB-1016	17	U	17.	3.3	ug/kg	84		80-120		
PCB-1221	17	U	17.	5.1	ug/kg					
PCB-1232	17	U	17.	4.1	ug/kg					
PCB-1242	17	U	17.	3.3	ug/kg					
PCB-1248	17	U	17.	3.3	ug/kg					
PCB-1254	17	U	17.	4.4	ug/kg					

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1382496
Reported: 05/03/13 at 09:52 AM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
PCB-1260	17	U	17.	3.9	ug/kg	105		72-120		
PCB-1262	17	U	17.	3.3	ug/kg					
PCB-1268	17	U	17.	3.3	ug/kg					
Batch number: 131060007A	Sample number(s): 7020349-7020350									
Aroclor 5432	0.40	U	0.40	0.080	ug/l					
Aroclor 5442	0.40	U	0.40	0.080	ug/l	60	59	35-84	2	30
Aroclor 5460	0.40	U	0.40	0.080	ug/l					
PCB-1016	0.40	U	0.40	0.080	ug/l	85	73	69-120	16	30
PCB-1221	0.40	U	0.40	0.080	ug/l					
PCB-1232	0.40	U	0.40	0.16	ug/l					
PCB-1242	0.40	U	0.40	0.080	ug/l					
PCB-1248	0.40	U	0.40	0.080	ug/l					
PCB-1254	0.40	U	0.40	0.080	ug/l					
PCB-1260	0.40	U	0.40	0.12	ug/l	89	82	69-128	8	30
PCB-1262	0.40	U	0.40	0.16	ug/l					
PCB-1268	0.40	U	0.40	0.13	ug/l					
Batch number: 131060008A	Sample number(s): 7020350									
Aldrin	0.0080	U	0.0080	0.0016	ug/l	69	75	55-126	7	30
Alpha BHC	0.0080	U	0.0080	0.0024	ug/l	88	99	63-132	11	30
Beta BHC	0.0080	U	0.0080	0.0027	ug/l	84	93	63-132	10	30
Gamma BHC - Lindane	0.0080	U	0.0080	0.0016	ug/l	88	99	68-128	12	30
Chlordane	0.40	U	0.40	0.13	ug/l					
p,p-DDD	0.016	U	0.016	0.0040	ug/l	102	106	62-143	3	30
p,p-DDE	0.016	U	0.016	0.0040	ug/l	91	95	56-137	5	30
p,p-DDT	0.016	U	0.016	0.0042	ug/l	90	97	45-134	8	30
Delta BHC	0.0080	U	0.0080	0.0027	ug/l	88	98	63-131	11	30
Dieldrin	0.016	U	0.016	0.0042	ug/l	91	98	65-135	8	30
Endosulfan I	0.0080	U	0.0080	0.0034	ug/l	89	95	48-124	7	30
Endosulfan II	0.016	U	0.016	0.012	ug/l	89	93	53-123	5	30
Endosulfan Sulfate	0.016	U	0.016	0.0046	ug/l	85	92	60-129	7	30
Endrin	0.016	U	0.016	0.0065	ug/l	91	97	43-139	6	30
Endrin Aldehyde	0.080	U	0.080	0.016	ug/l	77	82	55-123	6	20
Endrin Ketone	0.016	U	0.016	0.0040	ug/l	85	90	51-138	5	30
Heptachlor	0.0080	U	0.0080	0.0016	ug/l	76	84	57-126	11	30
Heptachlor Epoxide	0.0080	U	0.0080	0.0018	ug/l	85	94	65-128	10	30
Methoxychlor	0.080	U	0.080	0.024	ug/l	94	96	46-134	2	30
Mirex	0.20	U	0.20	0.068	ug/l					
Toxaphene	2.4	U	2.4	0.80	ug/l					
Batch number: 131080026A	Sample number(s): 7020350									
Ethanol	1,000 U		1,000.	200	ug/l	104		78-116		
Isopropanol	1,000 U		1,000.	200	ug/l	102		67-120		
Methanol	1,000 U		1,000.	200	ug/l	104		79-120		
Batch number: 131130028A	Sample number(s): 7020350									
Diethylene glycol	10	U	10.	8.0	mg/l	90		61-123		
Ethylene glycol	10	U	10.	8.0	mg/l	97		63-128		
Propylene glycol	10	U	10.	8.0	mg/l	94		62-136		
Triethylene glycol	10	U	10.	8.0	mg/l	86		66-129		
Batch number: 131030007A	Sample number(s): 7020349-7020350									

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1382496
Reported: 05/03/13 at 09:52 AM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
EFH (C12-C14)	0.60	U	0.60	0.10	mg/l	87	86	70-130	2	30
EFH (C15-C20)	0.60	U	0.60	0.10	mg/l	95	95	70-130	0	30
EFH (C21-C30)	0.60	U	0.60	0.10	mg/l	94	95	70-130	2	30
EFH (C30 - C40)	0.60	U	0.60	0.10	mg/l	70	71	70-130	2	30
EFH (C8-C11)	0.60	U	0.60	0.10	mg/l	69*	68*	70-130	1	30
Batch number: 131060013A	Sample number(s): 7020345-7020348									
EFH (C12-C14)	5.0	U	5.0	2.0	mg/kg	98	95	70-123	3	20
EFH (C15-C20)	5.0	U	5.0	2.0	mg/kg	113	110	75-128	3	20
EFH (C21-C30)	5.0	U	5.0	2.0	mg/kg	110	108	64-134	2	20
EFH (C30-C40)	10	U	10.	4.0	mg/kg	79	70	65-128	12	20
EFH (C8-C11)	5.0	U	5.0	2.0	mg/kg	82	79	49-107	4	20
Batch number: 131080007A	Sample number(s): 7020350									
m-Terphenyl	0.0050	U	0.0050	0.0020	mg/l	82	85	61-108	4	20
o-Terphenyl	0.0050	U	0.0050	0.0020	mg/l	83	87	75-125	4	20
p-Terphenyl	0.0050	U	0.0050	0.0020	mg/l	97	101	63-110	4	20
Batch number: 131050637003	Sample number(s): 7020345-7020348									
Aluminum	40.0	U	40.0	7.71	mg/kg	103		80-120		
Antimony	4.00	U	4.00	0.500	mg/kg	113		80-120		
Arsenic	4.00	U	4.00	0.330	mg/kg	105		80-120		
Barium	1.00	U	1.00	0.0330	mg/kg	104		80-120		
Beryllium	1.00	U	1.00	0.0670	mg/kg	104		80-120		
Boron	10.0	U	10.0	0.830	mg/kg	98		80-120		
Cadmium	1.00	U	1.00	0.0330	mg/kg	107		80-120		
Calcium	4.23	J	20.0	4.02	mg/kg	105		80-120		
Chromium	3.00	U	3.00	0.0880	mg/kg	103		80-120		
Cobalt	1.00	U	1.00	0.0900	mg/kg	107		80-120		
Copper	2.00	U	2.00	0.180	mg/kg	105		80-120		
Iron	40.0	U	40.0	3.80	mg/kg	100		80-120		
Lead	3.00	U	3.00	0.470	mg/kg	109		80-120		
Lithium	4.0	U	4.0	0.55	mg/kg	102		80-120		
Magnesium	10.0	U	10.0	1.73	mg/kg	102		80-120		
Manganese	1.00	U	1.00	0.0830	mg/kg	104		80-120		
Molybdenum	2.00	U	2.00	0.170	mg/kg	107		80-120		
Nickel	2.00	U	2.00	0.110	mg/kg	109		80-120		
Phosphorus	14.4		10.0	0.510	mg/kg	120		80-120		
Potassium	100 U		100.	13.5	mg/kg	101		80-120		
Sodium	100 U		100.	16.7	mg/kg	100		80-120		
Tin	1.39	J	10.0	0.220	mg/kg	106		80-120		
Titanium	1.00	U	1.00	0.170	mg/kg	104		80-120		
Vanadium	1.00	U	1.00	0.110	mg/kg	106		80-120		
Zinc	0.273	J	4.00	0.200	mg/kg	108		80-120		
Zirconium	5.00	U	5.00	0.830	mg/kg	104		80-120		
Batch number: 131050637003A	Sample number(s): 7020345-7020348									
Silver	0.200	U	0.200	0.0200	mg/kg	108		80-120		
Strontium	0.400	U	0.400	0.0340	mg/kg	102		80-120		
Thallium	0.200	U	0.200	0.0300	mg/kg	111		80-120		
Batch number: 131050637003B	Sample number(s): 7020345-7020348									
Selenium	0.400	U	0.400	0.100	mg/kg	120		80-120		

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1382496
Reported: 05/03/13 at 09:52 AM

Analysis Name	Blank Result	Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 131055713004	Sample number(s): 7020349-7020350								
3b Mercury 7470A	0.00020 U	0.00020	0.00007 0	mg/l	96	92	90-115	4	20
Batch number: 131060638003	Sample number(s): 7020345-7020348								
3a Mercury 7471A	0.0167 U	0.0167	0.0103	mg/kg	100		85-120		
Batch number: 131080635001	Sample number(s): 7020349-7020350								
Aluminum	0.400 U	0.400	0.0743	mg/l	103	103	90-112	0	20
Antimony	0.0400 U	0.0400	0.0035	mg/l	106	106	88-111	0	20
Arsenic	0.0400 U	0.0400	0.0068	mg/l	99	97	90-113	3	20
Barium	0.0100 U	0.0100	0.00033	mg/l	103	103	90-110	0	20
Beryllium	0.0100 U	0.0100	0.00067	mg/l	101	101	88-110	1	20
Boron	0.100 U	0.100	0.0083	mg/l	94	94	89-110	0	20
Cadmium	0.0100 U	0.0100	0.00036	mg/l	102	102	90-112	1	20
Calcium	0.400 U	0.400	0.0640	mg/l	103	103	90-110	1	20
Chromium	0.0300 U	0.0300	0.0011	mg/l	103	102	90-110	1	20
Cobalt	0.0100 U	0.0100	0.00066	mg/l	103	103	90-110	0	20
Copper	0.0024 J	0.0200	0.0021	mg/l	103	102	90-112	0	20
Iron	0.400 U	0.400	0.0333	mg/l	102	102	90-112	1	20
Lead	0.0300 U	0.0300	0.0051	mg/l	104	104	88-110	1	20
Lithium	0.0400 U	0.0400	0.0060	mg/l	101	102	90-110	1	20
Magnesium	0.200 U	0.200	0.0606	mg/l	102	102	90-110	1	20
Manganese	0.0100 U	0.0100	0.00083	mg/l	102	102	90-110	0	20
Molybdenum	0.0200 U	0.0200	0.0029	mg/l	104	106	90-110	2	20
Nickel	0.0200 U	0.0200	0.0011	mg/l	104	105	90-111	1	20
Phosphorus	0.200 U	0.200	0.0052	mg/l	101	102	90-110	1	20
Potassium	1.00 U	1.00	0.145	mg/l	99	99	85-115	1	20
Sodium	2.00 U	2.00	0.167	mg/l	99	100	87-114	1	20
Tin	0.0400 U	0.0400	0.0022	mg/l	101	102	90-110	1	20
Titanium	0.0200 U	0.0200	0.0017	mg/l	104	103	90-113	0	20
Vanadium	0.0100 U	0.0100	0.0013	mg/l	104	104	90-110	1	20
Zinc	0.0400 U	0.0400	0.0020	mg/l	102	103	90-110	1	20
Zirconium	0.100 U	0.100	0.0092	mg/l	105	106	90-110	1	20
Batch number: 131080639002A	Sample number(s): 7020349-7020350								
Silver	0.0010 U	0.0010	0.00010	mg/l	103	107	90-115	3	20
Strontium	0.0020 U	0.0020	0.00022	mg/l	100	102	80-120	2	20
Thallium	0.0010 U	0.0010	0.00015	mg/l	101	103	80-120	2	20
Batch number: 131080639002B	Sample number(s): 7020349-7020350								
Selenium	0.0040 U	0.0040	0.00050	mg/l	103	104	80-120	1	20
Batch number: 13102621301B	Sample number(s): 7020349-7020350								
2b Chromium VI by EPA 7199	10.0 U	10.0	5.0	ug/l	95	94	90-110	1	20
Batch number: 13102655901A	Sample number(s): 7020350								
1b Anions by 300.0-Bromide	0.50 U	0.50	0.40	mg/l	99	100	90-110	1	20
1b Anions by 300.0-Chloride	0.40 U	0.40	0.20	mg/l	98	99	90-110	1	20
1b Anions by 300.0-Fluoride	0.10 U	0.10	0.080	mg/l	96	97	90-110	1	20
1b Anions by 300.0-Nitrate	0.10 U	0.10	0.050	mg/l	99	102	90-110	3	20
1b Anions by 300.0-Nitrite	0.10 U	0.10	0.080	mg/l	97	97	90-110	0	20
1b Anions by 300.0-Orthophosph	0.50 U	0.50	0.20	mg/l	93	98	90-110	5	20
1b Anions by 300.0-Sulfate	1.0 U	1.0	0.30	mg/l	99	100	90-110	1	20
Batch number: 13107117102A	Sample number(s): 7020350								

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Reported: 05/03/13 at 09:52 AM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
16b Cyanide by EPA 9012B	0.010	U	0.010	0.0050	mg/l	103	104	90-110	1	15
Batch number: 13102007106A	Sample number(s): 7020349-7020350									
28b. pH (9040B and 9040C)						100		99-103		
Batch number: 13102039401A	Sample number(s): 7020345-7020348									
15a pH by 9045C						100		95-105		
Batch number: 13105008201A	Sample number(s): 7020350									
15b Ammonia by EPA 350.3	0.070	J	0.20	0.050	mg/l	108		90-110		
Batch number: 13106162401B	Sample number(s): 7020345-7020348									
14a Moisture Content by 160.3						100		80-120		

Analysis Name	Blank Result		Blank MRL**	Blank EDL	Report Units	OPR %REC	OPRD %REC	OPR/OPRD Limits	RPD	RPD Max
Batch number: 13106001	Sample number(s): 7020349-7020350									
2378-TCDD	2.00	U	2.00	0.264	pg/l	94		60-150		
12378-PeCDD	0.404	J	10.0	0.273	pg/l	95		60-150		
123478-HxCDD	10.0	U	10.0	0.184	pg/l	96		60-150		
123678-HxCDD	0.538	J	10.0	0.193	pg/l	98		60-150		
123789-HxCDD	0.284	J	10.0	0.193	pg/l	97		60-150		
1234678-HpCDD	0.306	J	10.0	0.220	pg/l	96		60-150		
OCDD	0.635	J	20.0	0.307	pg/l	97		60-150		
2378-TCDF	0.231	J	2.00	0.227	pg/l	96		60-150		
12378-PeCDF	0.484	J	10.0	0.191	pg/l	97		60-150		
23478-PeCDF	0.290	J	10.0	0.177	pg/l	96		60-150		
123478-HxCDF	0.338	J	10.0	0.115	pg/l	95		60-150		
123678-HxCDF	0.333	J	10.0	0.114	pg/l	94		60-150		
123789-HxCDF	0.394	J	10.0	0.101	pg/l	96		60-150		
234678-HxCDF	0.281	J	10.0	0.114	pg/l	97		60-150		
1234678-HpCDF	0.193	J	10.0	0.0864	pg/l	96		60-150		
1234789-HpCDF	0.370	J	10.0	0.0994	pg/l	97		60-150		
OCDF	0.712	J	20.0	0.282	pg/l	97		60-150		
Batch number: 13106003	Sample number(s): 7020345-7020348									
2378-TCDD	0.0457	J	1.00	0.0319	ng/kg	97		67-158		
12378-PeCDD	5.00	U	5.00	0.0277	ng/kg	99		70-142		
123478-HxCDD	0.0315	J	5.00	0.0190	ng/kg	106		70-164		
123678-HxCDD	0.0201	J	5.00	0.0194	ng/kg	104		76-134		
123789-HxCDD	5.00	U	5.00	0.0188	ng/kg	104		64-162		
1234678-HpCDD	0.0840	J	5.00	0.0207	ng/kg	101		70-140		
OCDD	0.121	J	10.0	0.0175	ng/kg	102		78-144		
2378-TCDF	1.00	U	1.00	0.0320	ng/kg	102		75-158		
12378-PeCDF	0.0560	J	5.00	0.0169	ng/kg	103		80-134		
23478-PeCDF	0.0310	J	5.00	0.0162	ng/kg	105		68-160		
123478-HxCDF	0.0446	J	5.00	0.0127	ng/kg	105		72-134		
123678-HxCDF	0.0356	J	5.00	0.0121	ng/kg	103		84-130		
123789-HxCDF	0.0566	J	5.00	0.0121	ng/kg	107		78-130		
234678-HxCDF	0.0222	J	5.00	0.0117	ng/kg	105		70-156		
1234678-HpCDF	0.0530	J	5.00	0.00783	ng/kg	104		82-122		
1234789-HpCDF	0.0413	J	5.00	0.0103	ng/kg	105		78-138		
OCDF	0.0815	J	10.0	0.0257	ng/kg	104		63-170		

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1382496
Reported: 05/03/13 at 09:52 AM

Analysis Name	Blank Result	Blank MRL**	Blank EDL	Report Units	OPR %REC	OPRD %REC	OPR/OPRD Limits	RPD	RPD Max
Batch number: 13106001	Sample number(s): 7020349-7020350								
TEQ WHO 2005 - EDLx0.0	0.126			pg/l					
Batch number: 13106003	Sample number(s): 7020345-7020348								
TEQ WHO 2005 - EDLx0.0	0.0162			ng/kg					

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 13105SLA026	Sample number(s): 7020345-7020348 UNSPK: P016768								
Acenaphthene	116	110	48-127	6	30				
Acenaphthylene	112	109	49-121	3	30				
Anthracene	107	105	52-126	2	30				
Benzo(a)anthracene	103	106	32-135	3	30				
Benzo(a)pyrene	101	99	36-138	2	30				
Benzo(b)fluoranthene	111	107	26-142	4	30				
Benzo(e)pyrene	1*	1*	70-130	1	30				
Benzo(g,h,i)perylene	97	93	33-141	4	30				
Benzo(k)fluoranthene	93	91	47-129	2	30				
Butylbenzylphthalate	102	99	59-153	2	30				
Di-n-butylphthalate	123	110	62-154	11	30				
Chrysene	102	103	29-148	1	30				
Dibenz(a,h)anthracene	107	103	34-125	4	30				
Diethylphthalate	135*	133*	76-127	1	30				
Dimethylphthalate	116	110	62-136	5	30				
Bis(2-Ethylhexyl)phthalate	66	69	39-167	2	30				
Fluoranthene	95	91	47-135	5	30				
Fluorene	109	109	50-129	0	30				
Indeno(1,2,3-cd)pyrene	107	101	17-136	6	30				
1-Methylnaphthalene	104	102	50-131	1	30				
2-Methylnaphthalene	107	106	28-144	1	30				
Naphthalene	101	100	31-148	2	30				
N-Nitrosodimethylamine	79	76	48-113	3	30				
Di-n-octylphthalate	97	96	52-162	2	30				
Phenanthrene	105	104	29-142	1	30				
Pyrene	105	108	26-143	3	30				
Batch number: 131060040A	Sample number(s): 7020350 UNSPK: 7020350								
6b Perchlorate (Method 6850)	105	103	80-120	2	20				
Batch number: 131050020A	Sample number(s): 7020345-7020348 UNSPK: P016768								
PCB-1016	100	72	16-146	31	50				
PCB-1260	104	70	40-134	39	50				
Batch number: 131080026A	Sample number(s): 7020350 UNSPK: 7020350								

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1382496
Reported: 05/03/13 at 09:52 AM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Ethanol	113	104	62-145	8	20				
Isopropanol	106	101	73-131	5	20				
Methanol	111	104	52-159	7	20				
Batch number: 131130028A	Sample number(s): 7020350 UNSPK: P024683								
Diethylene glycol	91	92	50-166	1	20				
Ethylene glycol	97	98	50-155	2	20				
Propylene glycol	96	96	54-145	0	20				
Triethylene glycol	86	88	50-133	2	20				
Batch number: 131060013A	Sample number(s): 7020345-7020348 UNSPK: P022144								
EFH (C12-C14)	96	113	49-123	16	20				
EFH (C15-C20)	152*	217*	49-123	35*	20				
EFH (C21-C30)	125*	235*	49-123	33*	20				
EFH (C30-C40)	198*	401*	49-123	35*	20				
EFH (C8-C11)	92	108	49-123	16	20				
Batch number: 131050637003	Sample number(s): 7020345-7020348 UNSPK: P016768 BKG: P016768								
Aluminum	1818 (2)	1689 (2)	75-125	1	20	12,800	13,500	5	20
Antimony	48*	47*	75-125	0	20	3.96 U	3.92 U	0 (1)	20
Arsenic	94	96	75-125	3	20	4.05	4.49	10 (1)	20
Barium	97	99	75-125	3	20	70.3	69.9	1	20
Beryllium	102	101	75-125	1	20	0.538 J	0.550 J	2 (1)	20
Boron	99	106	75-125	9	20	9.90 U	9.80 U	0 (1)	20
Cadmium	94	99	75-125	7	20	0.0703 J	0.116 J	49* (1)	20
Calcium	17 (2)	365 (2)	75-125	37*	20	2,990	2,910	3	20
Chromium	102	104	75-125	2	20	14.7	14.3	3 (1)	20
Cobalt	92	94	75-125	3	20	4.14	3.71	11 (1)	20
Copper	96	103	75-125	7	20	6.49	6.12	6 (1)	20
Iron	-545 (2)	-1097 (2)	75-125	3	20	18,400	17,300	7	20
Lead	90	93	75-125	4	20	5.05	5.12	2 (1)	20
Lithium	100	100	75-125	1	20	21.7	20.4	6	20
Magnesium	169 (2)	78 (2)	75-125	4	20	3,950	3,710	6	20
Manganese	131 (2)	65 (2)	75-125	11	20	236	220	7	20
Molybdenum	94	95	75-125	3	20	0.650 J	0.234 J	94* (1)	20
Nickel	93	97	75-125	5	20	8.52	8.24	3 (1)	20
Phosphorus	56*	127*	75-125	15	20	385	365	5	20
Potassium	81	65*	75-125	3	20	3,440	3,290	5	20
Sodium	98	97	75-125	2	20	67.0 J	66.0 J	2 (1)	20
Tin	87	89	75-125	4	20	2.67 J	2.57 J	4 (1)	20
Titanium	325 (2)	208 (2)	75-125	10	20	859	880	2	20
Vanadium	106	102	75-125	1	20	28.8	28.6	1	20
Zinc	83	100	75-125	9	20	54.0	50.4	7	20
Zirconium	98	97	75-125	1	20	0.891 J	1.71 J	63* (1)	20
Batch number: 131050637003A	Sample number(s): 7020345-7020348 UNSPK: P016768 BKG: P016768								
Silver	97	101	75-125	7	20	0.0232 J	0.0211 J	9 (1)	20
Strontium	92	153*	75-125	17	20	18.8	17.7	6	20
Thallium	105	113	75-125	6	20	0.216	0.224	3 (1)	20

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1382496
Reported: 05/03/13 at 09:52 AM

Sample Matrix Quality Control

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Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 131050637003B	Sample number(s): 7020345-7020348 UNSPK: P016768 BKG: P016768								
Selenium	95	89	75-125	4	20	0.0990 J	0.165 J	50* (1)	20
Batch number: 131060638003	Sample number(s): 7020345-7020348 UNSPK: P016768 BKG: P016768								
3a Mercury 7471A	114	115	65-135	1	20	0.0195 U	0.0189 U	0 (1)	20
Batch number: 13102007106A	Sample number(s): 7020349-7020350 BKG: P018294								
28b. pH (9040B and 9040C)						8.0	8.2	2	3
Batch number: 13102039401A	Sample number(s): 7020345-7020348 BKG: 7020345								
15a pH by 9045C						7.90	7.91	0	3
Batch number: 13105008201A	Sample number(s): 7020350 UNSPK: P018096 BKG: P018096								
15b Ammonia by EPA 350.3	107	111	28-141	4	10	0.51	0.66	26* (1)	20
Batch number: 13106162401B	Sample number(s): 7020345-7020348 BKG: P018437								
14a Moisture Content by 160.3						1.9	2.0	3	20
Batch number: 13106003	Sample number(s): 7020345-7020348 UNSPK: P022144								
2378-TCDD	92	94	40-135	3	20				
12378-PeCDD	98	99	40-135	2	20				
123478-HxCDD	104	106	40-135	3	20				
123678-HxCDD	106	102	40-135	2	20				
123789-HxCDD	105	102	40-135	3	20				
1234678-HpCDD	134	100	40-135	24*	20				
OCDD	266*	110	40-135	58*	20				
2378-TCDF	98	99	40-135	2	20				
12378-PeCDF	102	102	40-135	1	20				
23478-PeCDF	105	103	40-135	0	20				
123478-HxCDF	106	105	40-135	0	20				
123678-HxCDF	102	103	40-135	2	20				
123789-HxCDF	104	104	40-135	2	20				
234678-HxCDF	104	104	40-135	1	20				
1234678-HpCDF	109	105	40-135	3	20				
1234789-HpCDF	104	103	40-135	0	20				
OCDF	108	102	40-135	4	20				

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed
unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 13b 1,4-Dioxane by 8260B SIM
Batch number: E131052AA

	Toluene-d8
7020350	91
Blank	91
LCS	91

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1382496
Reported: 05/03/13 at 09:52 AM

Surrogate Quality Control

LCSD	91					
Limits:	80-120					

Analysis Name: 12b Volatile Organics EPA8260B
Batch number: Y131141AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7020350	100	100	98	94
Blank	101	100	97	95
LCS	100	103	99	100
LCSD	100	102	100	100
Limits:	86-118	80-120	88-110	86-115

Analysis Name: 7a SVOC SIM EPA 8270D
Batch number: 13105SLA026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
7020345	79	95	92
7020346	77	130	91
7020347	161*	178*	96
7020348	76	93	91
Blank	88	96	124
LCS	89	99	97
MS	83	98	99
MSD	80	96	94
Limits:	54-129	61-134	55-129

Analysis Name: 7b SVOC SIM EPA 8270D
Batch number: 13107WAH026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
7020349	105	120	101
7020350	101	114	97
Blank	79	87	77
LCS	105	125	102
LCSD	107	125	102
Limits:	64-120	62-141	58-134

Analysis Name: 8b SVOCs by EPA 8270D
Batch number: 13107WAI026

	Phenol-d6	2-Fluorophenol	2,4,6-Tribromophenol	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
7020350	45	64	86	87	92	99
Blank	60	76	100	105	111	105
LCS	60	79	105	99	104	107
LCSD	60	78	103	99	103	106
Limits:	20-110	20-110	30-110	40-130	45-130	45-130

Analysis Name: 11b TPH by EPA 8015B GRO

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1382496
Reported: 05/03/13 at 09:52 AM

Surrogate Quality Control

Batch number: 13106A20A

	Trifluorotoluene-F
7020349	88
7020350	88
Blank	88
LCS	110
LCSD	112
Limits:	63-135

Analysis Name: 19b Formaldehyde 8315A
Batch number: 131020013A

	Butyraldehyde
7020350	76
Blank	77
LCS	90
LCSD	65
Limits:	45-145

Analysis Name: 19a PCBs and PCTs 8082A
Batch number: 131050020A

	Tetrachloro-m-xylene	Decachlorobiphenyl
7020345	122*	87
7020346	87	64
7020347	79	55
7020348	116	85
Blank	117	87
LCS	117	90
LCSD	121*	94
MS	120	93
MSD	79	73
Limits:	45-120	45-120

Analysis Name: 24b Herbicides by EPA 8151A
Batch number: 131060002A

	2,4-Dichlorophenylacetic acid
7020350	91
Blank	98
LCS	103
LCSD	106
Limits:	50-150

Analysis Name: 21b PCBs and PCTs 8082A
Batch number: 131060007A

	Tetrachloro-m-xylene	Decachlorobiphenyl
7020349	108	73
7020350	90	57

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Quality Control Summary

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Reported: 05/03/13 at 09:52 AM

Surrogate Quality Control

Blank	95	71
LCS	105	46
LCSD	93	67
Limits:	45-120	45-120

Analysis Name: 22b Pesticides by EPA 8081B
Batch number: 131060008A

	Tetrachloro-m-xylene	Decachlorobiphenyl
7020350	92	83
Blank	111	104
LCS	85	92
LCSD	95	94
Limits:	60-140	20-120

Analysis Name: 18b Energetics by 8330A
Batch number: 131060031A

	2-Nitro-m-xylene
7020350	95
Blank	95
LCS	96
LCSD	97
Limits:	80-146

Analysis Name: 10b TPH by EPA 8015B (DRO)
Batch number: 131030007A

	Chlorobenzene	Orthoterphenyl
7020349	77	79
7020350	78	79
Blank	81	78
LCS	85	87
LCSD	85	87
Limits:	45-126	69-119

Analysis Name: 10a TPH by EPA 8015B (DRO)
Batch number: 131060013A

	Chlorobenzene	Orthoterphenyl
7020345	81	74
7020346	97	88
7020347	109	69
7020348	81	75
Blank	84	85
LCS	92	83
LCSD	88	81
MS	86	72
MSD	90	66
Limits:	37-125	66-123

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1382496
Reported: 05/03/13 at 09:52 AM

Surrogate Quality Control

Analysis Name: 23b Terphenyls by 8015B
Batch number: 131080007A

	n-Triacontane-d62
7020350	91
Blank	86
LCS	86
LCSD	86
Limits:	36-160

Analysis Name: 14b Alcohols by EPA 8015C
Batch number: 131080026A

	Acetone
7020350	93
Blank	96
LCS	93
MS	95
MSD	93
Limits:	71-127

Analysis Name: 20b Glycols by EPA 8015C
Batch number: 131130028A

	Tetramethylene glycol
7020350	100
Blank	96
LCS	90
MS	89
MSD	91
Limits:	58-141

Analysis Name: 17b Dioxin/Furan by EPA 1613B
Batch number: 13106001

	13C12-2378-TCDD	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF	13C12-234678-HxCDF	13C12-123789-HxCDF
7020349	76	77	78	77	76	86
7020350	74	78	79	78	76	75
Blank	81	86	85	84	84	99
OPR	77	80	81	81	77	85
Limits:	25-164	21-178	26-152	26-123	28-136	29-147

	13C12-1234678-HpCDF	13C12-1234789-HpCDF	13C12-OCDF	13C12-12378-PeCDD	13C12-123478-HxCDD	13C12-123678-HxCDD
7020349	74	71	71	81	80	79
7020350	73	70	65	80	81	80
Blank	85	84	86	88	87	86
OPR	76	71	69	81	82	80
Limits:	28-143	26-138	17-157	25-181	32-141	28-130

	13C12-123789-HxCDD	13C12-1234678-HpCDD	13C12-OCDD	13C12-2378-TCDF	13C12-12378-PeCDF

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Quality Control Summary

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Reported: 05/03/13 at 09:52 AM

Surrogate Quality Control

7020349	77	76	77	73	78
7020350	78	74	72	75	79
Blank	85	88	92	79	85
OPR	79	76	76	78	82
Limits:	28-130	23-140	17-157	24-169	24-185

Analysis Name: 23a Dioxin/Furan by EPA 1613B
Batch number: 13106003

	13C12-2378-TCDD	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF	13C12-234678-HxCDF	13C12-123789-HxCDF
7020345	74	85	88	91	88	97
7020346	79	86	85	84	84	85
7020347	86	84	87	87	86	84
7020348	76	85	85	87	85	83
Blank	70	82	86	88	88	94
MS	80	84	86	88	86	93
MSD	75	84	86	86	85	91
OPR	65	71	78	80	77	79
Limits:	25-164	21-178	26-152	26-123	28-136	29-147

	13C12-1234678-HpCDF	13C12-1234789-HpCDF	13C12-OCDF	13C12-12378-PeCDD	13C12-123478-HxCDD	13C12-123678-HxCDD
7020345	101	94	100	86	85	85
7020346	83	80	74	86	80	81
7020347	80	75	66	85	83	82
7020348	89	77	67	85	82	82
Blank	108	95	106	86	87	86
MS	91	86	84	87	85	83
MSD	92	84	80	85	84	85
OPR	85	73	71	71	75	75
Limits:	28-143	26-138	17-157	25-181	32-141	28-130

	13C12-123789-HxCDD	13C12-1234678-HpCDD	13C12-OCDD	13C12-2378-TCDF	13C12-12378-PeCDF
7020345	85	93	101	69	85
7020346	80	79	72	76	84
7020347	82	75	65	80	84
7020348	82	78	70	72	85
Blank	84	94	108	64	83
MS	85	85	83	73	83
MSD	86	84	80	69	83
OPR	75	76	76	62	71
Limits:	28-130	23-140	17-157	24-169	24-185

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SSFL Phase 3 Chain of Custody

CDM Smith

A-13013
G-1382496
5-7020345-50

DateShipped:	4/11/2013	Contact Name:	Pam Hartman	COC No:	20130411-02
CarrierName:	FedEx	Contact Phone:	(818)466-8007	Cooler #:	1, 2, 3, 4
AirbillNo:	7995 0780 9940			Lab:	Lancaster
				Lab Phone:	717-556-7259
				Lab Address	2425 New Holland Pike Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Other Analysis/Notes
SL-553-SA7-SB-0.0-0.5	4/11/13 08:10	SO	None	2 - SS-Sleeve	0	X	X					X		X	X											X											
SL-553-SA7-SB-0.0-0.5	4/11/13 08:10	SO	None	1 - 4 oz glass	0														X																		
SL-554-SA7-SB-0.0-0.5	4/11/13 09:00	SO	None	2 - SS-Sleeve	0	X	X					X		X	X											X											
SL-554-SA7-SB-0.0-0.5	4/11/13 09:00	SO	None	1 - 4 oz glass	0														X																		
SL-555-SA7-SB-0.0-0.5	4/11/13 10:15	SO	None	2 - SS-Sleeve	0	X	X					X		X	X											X											
SL-555-SA7-SB-0.0-0.5	4/11/13 10:15	SO	None	1 - 4 oz glass	0														X																		
SL-536-SA7-SB-0.0-0.5	4/11/13 12:55	SO	None	2 - SS-Sleeve	0	X	X					X		X	X											X											
SL-536-SA7-SB-0.0-0.5	4/11/13 12:55	SO	None	1 - 4 oz glass	0														X																		

Special Instructions:

Sampler: Steve Mercer

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
V. Gatz	4/11/13										
										4/12/13	0925

A-13013
G-1382496

SSFL Phase 3 Chain of Custody

S-7020345-50

CDM Smith

DateShipped: 4/11/2013
CarrierName: FedEx
AirbillNo: 7995 0780 9940

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20130411-03
Cooler #: 4
Lab: Lancaster
Lab Phone: 717-556-7259
Lab Address: 2425 New Holland Pike
Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Other Analysis/Notes
EB-041113	4/11/13 15:15	WQ	HNO3 pH<2	1 - 250 mL Poly	0	X		X																													
EB-041113	4/11/13 15:15	WQ	None	1 - 250 mL Amber	0							X																									
EB-041113	4/11/13 15:15	WQ	None	1 - 1 L Amber	0									X																							
EB-041113	4/11/13 15:15	WQ	None	1 - 250 mL Amber	0										X																						
EB-041113	4/11/13 15:15	WQ	None	1 - 250 mL Poly	0														X																		
EB-041113	4/11/13 15:15	WQ	None	1 - 250 mL Poly	0															X																	
EB-041113	4/11/13 15:15	WQ	HCl	3 - 40 mL Vial	0																			X													
EB-041113	4/11/13 15:15	WQ	HCl	2 - 1 L Amber	0																				X												

Special Instructions:

Sampler: Vidal Gt

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
V. Gt											
										4/12/13	0925

A-13013
G-1382496
S-7020345-50

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 4/11/2013
CarrierName: FedEx
AirbillNo: 7995 0780 9940

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20130411-01
Cooler #: 2, 3
Lab: Lancaster
Lab Phone: 717-556-7259
Lab Address: 2425 New Holland Pike
Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Other Analysis/Notes
FB-041113	4/11/13 15:00	WQ	HNO3 pH<2	1 - 250 mL Poly	0	X		X																													
FB-041113	4/11/13 15:00	WQ	None	1 -	0				X																												Container is 1 L Poly
FB-041113	4/11/13 15:00	WQ	None	1 - 250 mL Amber	0					X																											
FB-041113	4/11/13 15:00	WQ	None	1 - 250 mL Amber	0							X																									
FB-041113	4/11/13 15:00	WQ	None	1 - 1 L Amber	0									X																							
FB-041113	4/11/13 15:00	WQ	None	1 - 250 mL Amber	0										X																						
FB-041113	4/11/13 15:00	WQ	None	1 - 40 mL Vial	0											X																					
FB-041113	4/11/13 15:00	WQ	None	1 - 250 mL Poly	0													X																			
FB-041113	4/11/13 15:00	WQ	None	1 - 250 mL Poly	0														X																		
FB-041113	4/11/13 15:00	WQ	None	1 - 1 L Amber	0															X																	
FB-041113	4/11/13 15:00	WQ	None	1 - 250 mL Amber	0																X																
FB-041113	4/11/13 15:00	WQ	HCl	3 - 40 mL Vial	0																	X															
FB-041113	4/11/13 15:00	WQ	HCl	3 - 40 mL Vial	0																		X														
FB-041113	4/11/13 15:00	WQ	HCl	3 - 40 mL Vial	0																			X													
FB-041113	4/11/13 15:00	WQ	HCl	2 - 1 L Amber	0																				X												
FB-041113	4/11/13 15:00	WQ	None	2 - 40 mL Vial	0																					X											
FB-041113	4/11/13 15:00	WQ	HCl	2 - 40 mL Vial	0																						X										
FB-041113	4/11/13 15:00	WQ	HCl	1 - 1 L Amber	0																							X									
FB-041113	4/11/13 15:00	WQ	None	6 - 40 mL Vial	0																								X								Anions EPA 300.0 |
FB-041113	4/11/13 15:00	WQ	None	2 - 1 L Amber	0																									X							
FB-041113	4/11/13 15:00	WQ	NaOH	1 - 250 mL Poly	0																										X						
FB-041113	4/11/13 15:00	WQ	None	1 - 8 oz glass	0																											X					
FB-041113	4/11/13 15:00	WQ	H2SO4 pH<2	1 - 16 oz glass	0																																Ammonia EPA 350.3 |

SSFL Phase 3 Chain of Custody

CDM Smith

A-13013
G-1382496
S-7020345-50

DateShipped:	4/11/2013	Contact Name:	Pam Hartman	COC No:	20130411-01
CarrierName:	FedEx	Contact Phone:	(818)466-8007	Cooler #:	2, 3
AirbillNo:	7995 0780 9940			Lab:	Lancaster
				Lab Phone:	717-556-7259
				Lab Address	2425 New Holland Pike Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Other Analysis/Notes

Special Instructions:

Sampler: Vidal Galz

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
V. Galz	4/11/13										
										4/12/13	0925

From: Cortes, Vidal A. [cortesva@cdmsmith.com]
Sent: Friday, April 12, 2013 3:08 PM
To: Nicole Maljovec
Cc: Hartman, Pamela; Burgesser, Todd
Subject: RE: SSFL 04/11/13

1. Please subsample for Metals and Mercury analysis. No on the Cyanide.

2. Please analyze for Ammonia by EPA 350.3.

3. Please analyze for additional anions (Bromide, Chloride, Nitrite, Phosphate, and Sulfate) by EPA 300.0.

4. We will provide sample in 250 mL poly next time.

5. We will work on this.

From: Nicole Maljovec [nmaljovec@lancasterlabs.com]
Sent: Friday, April 12, 2013 1:22 PM
To: Cortes, Vidal A.
Cc: Hartman, Pamela; Burgesser, Todd
Subject: RE: SSFL 04/11/13

Hi Vidal and Pam,
We have a couple of questions for you.

1. We received a cyanide bottle for the equipment blank, but not a metals bottle. We can subsample volume from another unpreserved bottle and preserve it with HNO3 to make a metals bottle, so no problem there.
Do you need cyanide on the EB?

2. We received an Ammonia bottle for the field blank, but it isn't marked off on the COC. Do you need this test? There is a note in the "Other Analysis/Notes" section of the COC that says Ammonia EPA 350.3.

3. Nitrate and Fluoride are marked on the COC for the field blank, but the bottle label has Nitrate, Nitrite, phosphate, chloride, sulfate, and bromide listed. Do you need all of the tests on the label?

4. This is just an FYI. For Fluoride, you can scale this back to a 250mL poly bottle instead of the 1L poly. We only need a few mLs. We can't use glass though because the fluoride will etch it and start to dissolve the glass.

5. One small request: on the COC, can you darken the lines from 1,4-Dioxane to Hex Cr? They're really light. (I know, I'm being picky!)

Thanks,
Nicole

Nicole Maljovec
Eurofins Lancaster Labs
Phone: 717-556-7259

-----Original Message-----
From: Cortes, Vidal A. [mailto:cortesva@cdmsmith.com]
Sent: Thursday, April 11, 2013 7:04 PM
To: !US19_SSFLShip
Cc: Hartman, Pamela
Subject: SSFL 04/11/13

Hello,

Please see the attached COCs for samples collected on 4/11.

Thank you,

Vidal Cortes

CDM Smith

111 Academy, Suite 150
Irvine, CA 92617

(949) 930-9823 - direct | fax
(949) 241-9173 - cell
cortesva@cdmsmith.com<mailto:wallinsl@cdm.com>
cdmsmith.com

eurofins | Lancaster Laboratories

G-1382496

Environmental Sample Administration
Receipt Documentation Log

Client/Project: CDM Smith

Date of Receipt: 4/12/13

Time of Receipt: 0925

Source Code: 50

Shipping Container Sealed (YES) NO

Custody Seal Present * : (YES) NO

* Custody seal was intact unless otherwise noted in the discrepancy section

Package: (Chilled) Not Chilled

Temperature of Shipping Containers							
Cooler #	Thermometer ID	Temperature (°C)	Temp Bottle (TB) or Surface Temp (ST)	Wet Ice (WI) or Dry Ice (DI) or Ice Packs (IP)	Ice Present? Y/N	Loose (L) Bagged Ice (B) or NA	Comments
1	DT121	1.1	TB	WI	Y	B	
2	↓	0.8	↓	↓	↓	↓	
3	↓	1.8	↓	↓	↓	↓	
4	↓	0.7	↓	↓	↓	↓	
5							
6							

Number of Trip Blanks received NOT listed on chain of custody: Ø

Paperwork Discrepancy/Unpacking Problems:

metals bottle for EB pres w/Ascorbic Acid not HNO_3

2→ Sample volume WM 4/12/13 was subsampled and preserved w/ HNO_3. Client contacted. NLM 4/12/13

Unpacker Signature/Emp#: [signature] 964 **Date/Time:** 4/12/13 1000

Issued by Dept. 6042 Management

2174.06

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	**BMQL**	Below Minimum Quantitation Level
N.D.	none detected	**MPN**	Most Probable Number
TNTC	Too Numerous To Count	**CP Units**	cobalt-chloroplatinate units
IU	International Units	**NTU**	nephelometric turbidity units
umhos/cm	micromhos/cm	**ng**	nanogram(s)
C	degrees Celsius	**F**	degrees Fahrenheit
meq	milliequivalents	**lb.**	pound(s)
g	gram(s)	**kg**	kilogram(s)
µg	microgram(s)	**mg**	milligram(s)
mL	milliliter(s)	**L**	liter(s)
m3	cubic meter(s)	**µL**	microliter(s)
		pg/L	picogram/liter

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

J estimated value – The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	**B**	Value is <CRDL, but ≥IDL
B	Analyte was also detected in the blank	**E**	Estimated due to interference
C	Pesticide result confirmed by GC/MS	**M**	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	**N**	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	**S**	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	**U**	Compound was not detected
P	Concentration difference between primary and confirmation columns >25%	**W**	Post digestion spike out of control limits
U	Compound was not detected	*****	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	**+**	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as “analyze immediately” are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL LANCASTER LABORATORIES BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF LANCASTER LABORATORIES AND (B) WHETHER LANCASTER LABORATORIES HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Lancaster Laboratories which includes any conditions that vary from the Standard Terms and Conditions, and Lancaster hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

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

April 25, 2013

Project: Phase 3 Subarea 7

Submittal Date: 04/15/2013
Group Number: 1382816
SDG: PH030
PO Number: 1204-002-001-AL
State of Sample Origin: CA

Client Sample Description	Lancaster Labs (LLI) #
TB-041213 Water	7022142
EB-041213 Water	7022143
SL-536-SA7-SB-3.0-4.0 Soil	7022144
SL-536-SA7-SB-3.0-4.0MS Soil	7022145
SL-536-SA7-SB-3.0-4.0MSD Soil	7022146
SL-536-SA7-SB-3.0-4.0DUP Soil	7022147
SL-836-SA7-SB-3.0-4.0 Soil	7022148
SL-535-SA7-SB-0.0-0.5 Soil	7022149
SL-535-SA7-SB-4.0-5.0 Soil	7022150
SL-535-SA7-SB-9.0-10.0 Soil	7022151
SL-534-SA7-SB-0.0-0.5 Soil	7022152

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

ELECTRONIC COPY TO	LLI	Attn: Nicole Maljovec
ELECTRONIC COPY TO	Eurofins Lancaster Labs	Attn: Natalie Luciano

Respectfully Submitted,

Nicole L. Maljovec
Principal Specialist Group Leader

(717) 556-7259

eurofins | Lancaster Laboratories

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Analysis Report

Sample Description: TB-041213 Water
SSFL Phase 3 Subarea 7

LLI Sample # WW 7022142
LLI Group # 1382816
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/12/2013 08:00

Submitted: 04/15/2013 09:00
Reported: 04/25/2013 14:24

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

SA7TB SDG#: PH030-01TB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC Volatiles	**TPH GRO SW-8015B**		ug/l		ug/l	ug/l	
08229	TPH-GRO S.CA water C5-C12	n.a.	50	U	50	20	1

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08229	11b TPH by EPA 8015B GRO	TPH GRO SW-8015B	1	13106A20A	04/16/2013 12:30	Catherine J Schwarz	1
01146	GC VOA Water Prep	SW-846 5030B	1	13106A20A	04/16/2013 12:30	Catherine J Schwarz	1

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

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Analysis Report

Sample Description: EB-041213 Water
SSFL Phase 3 Subarea 7

LLI Sample # WW 7022143
LLI Group # 1382816
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/12/2013 08:05 by SM

Submitted: 04/15/2013 09:00
Reported: 04/25/2013 14:24

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

SA7EB SDG#: PH030-02EB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
HPLC Organics	**SW-846 8315A**		ug/l		ug/l	ug/l	
04144	19b Formaldehyde 8315A	50-00-0	50	U	50	30	1

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04144	19b Formaldehyde 8315A	SW-846 8315A	1	131050014A	04/16/2013 17:54	James H Place	1
01013	Formaldehyde Extraction	SW-846 8315A	1	131050014A	04/15/2013 18:10	Sally L Appleyard	1

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

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Analysis Report

Sample Description: SL-536-SA7-SB-3.0-4.0 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7022144
LLI Group # 1382816
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/12/2013 08:50 by SM

Submitted: 04/15/2013 09:00
Reported: 04/25/2013 14:24

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

SA736 SDG#: PH030-03BKG

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.68	1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.34	1
12969	Anthracene	120-12-7	1.7	U	1.7	0.34	1
12969	Benzo(a)anthracene	56-55-3	0.98	J	1.7	0.68	1
12969	Benzo(a)pyrene	50-32-8	1.2	J	1.7	0.68	1
12969	Benzo(b)fluoranthene	205-99-2	2.1		1.7	0.68	1
12969	Benzo(e)pyrene	192-97-2	17	U	17	3.4	1
12969	Benzo(g,h,i)perylene	191-24-2	1.1	J	1.7	0.68	1
12969	Benzo(k)fluoranthene	207-08-9	0.89	J	1.7	0.68	1
12969	Butylbenzylphthalate	85-68-7	18	U	18	6.1	1
12969	Di-n-butylphthalate	84-74-2	18	U	18	6.1	1
12969	Chrysene	218-01-9	1.8		1.7	0.34	1
12969	Dibenz(a,h)anthracene	53-70-3	1.7	U	1.7	0.68	1
12969	Diethylphthalate	84-66-2	18	U	18	6.1	1
12969	Dimethylphthalate	131-11-3	18	U	18	6.1	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	18	U	18	6.1	1
12969	Fluoranthene	206-44-0	2.4		1.7	0.68	1
12969	Fluorene	86-73-7	1.7	U	1.7	0.68	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	0.91	J	1.7	0.68	1
12969	1-Methylnaphthalene	90-12-0	1.7	U	1.7	0.68	1
12969	2-Methylnaphthalene	91-57-6	1.7	U	1.7	0.68	1
12969	Naphthalene	91-20-3	1.7	U	1.7	0.68	1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.68	1
12969	Di-n-octylphthalate	117-84-0	18	U	18	6.1	1
12969	Phenanthrene	85-01-8	1.2	J	1.7	0.68	1
12969	Pyrene	129-00-0	2.6		1.7	0.68	1
GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	1.0	U	1.0	0.2	24.8
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
10592	Aroclor 5432	63496-31-1	33	U	33	10	1
10592	Aroclor 5442	12642-23-8	33	U	33	10	1
10592	Aroclor 5460	11126-42-4	33	U	33	10	1
10592	PCB-1016	12674-11-2	17	U	17	3.3	1
10592	PCB-1221	11104-28-2	17	U	17	5.2	1
10592	PCB-1232	11141-16-5	17	U	17	4.1	1
10592	PCB-1242	53469-21-9	17	U	17	3.3	1
10592	PCB-1248	12672-29-6	17	U	17	3.3	1
10592	PCB-1254	11097-69-1	17	U	17	4.4	1
10592	PCB-1260	11096-82-5	17	U	17	3.9	1
10592	PCB-1262	37324-23-5	17	U	17	3.3	1
10592	PCB-1268	11100-14-4	17	U	17	3.3	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.1	U	5.1	2.1	1
12952	EFH (C15-C20)	n.a.	5.1	U	5.1	2.1	1

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

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Analysis Report

Sample Description: SL-536-SA7-SB-3.0-4.0 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7022144
LLI Group # 1382816
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/12/2013 08:50 by SM

Submitted: 04/15/2013 09:00
Reported: 04/25/2013 14:24

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

SA736 SDG#: PH030-03BKG

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C21-C30)	n.a.	6.7		5.1	2.1	1
12952	EFH (C30-C40)	n.a.	14		10	4.1	1
12952	EFH (C8-C11)	n.a.	5.1	U	5.1	2.1	1
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	10,800		39.5	7.61	1
06944	Antimony	7440-36-0	1.58	J	3.95	0.494	1
06935	Arsenic	7440-38-2	2.06	J	3.95	0.326	1
06946	Barium	7440-39-3	72.1		0.987	0.0326	1
06947	Beryllium	7440-41-7	0.482	J	0.987	0.0661	1
07914	Boron	7440-42-8	3.20	J	9.87	0.819	1
06949	Cadmium	7440-43-9	0.420	J	0.987	0.0326	1
01650	Calcium	7440-70-2	3,140		19.7	3.97	1
06951	Chromium	7440-47-3	18.5		2.96	0.0869	1
06952	Cobalt	7440-48-4	5.11		0.987	0.0888	1
06953	Copper	7440-50-8	5.13		1.97	0.178	1
01654	Iron	7439-89-6	19,000		39.5	3.75	1
06955	Lead	7439-92-1	5.13		2.96	0.464	1
01656	Lithium	7439-93-2	23.5		3.9	0.54	1
01657	Magnesium	7439-95-4	4,080		9.87	1.71	1
06958	Manganese	7439-96-5	283		0.987	0.0819	1
06960	Molybdenum	7439-98-7	1.23	J	1.97	0.168	1
06961	Nickel	7440-02-0	8.67		1.97	0.109	1
10145	Phosphorus	7723-14-0	367		9.87	0.503	1
01662	Potassium	7440-09-7	2,760		98.7	13.3	1
01667	Sodium	7440-23-5	61.3	J	98.7	16.5	1
06969	Tin	7440-31-5	2.92	J	9.87	0.217	1
06970	Titanium	7440-32-6	1,060		0.987	0.168	1
06971	Vanadium	7440-62-2	28.8		0.987	0.109	1
06972	Zinc	7440-66-6	55.1		3.95	0.197	1
10146	Zirconium	7440-67-7	1.11	J	4.94	0.819	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.395	U	0.395	0.0987	2
06142	Silver	7440-22-4	0.0307	J	0.197	0.0197	2
06144	Strontium	7440-24-6	12.0		0.395	0.0336	2
06145	Thallium	7440-28-0	0.232		0.197	0.0296	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0202	U	0.0202	0.0104	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045C	n.a.	7.71		0.0100	0.0100	1
	The pH was measured in water at 22.1 C.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	2.6		0.10	0.10	1

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

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Analysis Report

Sample Description: SL-536-SA7-SB-3.0-4.0 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7022144
LLI Group # 1382816
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/12/2013 08:50 by SM

Submitted: 04/15/2013 09:00
Reported: 04/25/2013 14:24

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

SA736 SDG#: PH030-03BKG

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

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

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

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Analysis Report

Sample Description: SL-536-SA7-SB-3.0-4.0 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7022144
LLI Group # 1382816
Account # 13013

Project Name: Phase 3 Subarea 7

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Submitted: 04/15/2013 09:00
Reported: 04/25/2013 14:24

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

SA736 SDG#: PH030-03BKG

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	1.00	U	1.00	0.0540	1
11031	12378-PeCDD	40321-76-4	0.238	JQ	5.02	0.0493	1
11031	123478-HxCDD	39227-28-6	0.287	JB	5.02	0.0472	1
11031	123678-HxCDD	57653-85-7	0.778	JB	5.02	0.0484	1
11031	123789-HxCDD	19408-74-3	0.575	J	5.02	0.0440	1
11031	1234678-HpCDD	35822-46-9	18.2	B	5.02	0.0430	1
11031	OCDD	3268-87-9	150	B	10.0	0.0476	1
11031	2378-TCDF	51207-31-9	1.00	U	1.00	0.0483	1
11031	12378-PeCDF	57117-41-6	0.0801	JB	5.02	0.0276	1
11031	23478-PeCDF	57117-31-4	0.0632	JBQ	5.02	0.0262	1
11031	123478-HxCDF	70648-26-9	0.0916	JB	5.02	0.0374	1
11031	123678-HxCDF	57117-44-9	0.157	JB	5.02	0.0348	1
11031	123789-HxCDF	72918-21-9	0.0426	JBQ	5.02	0.0404	1
11031	234678-HxCDF	60851-34-5	0.189	JBQ	5.02	0.0364	1
11031	1234678-HpCDF	67562-39-4	2.14	JB	5.02	0.0220	1
11031	1234789-HpCDF	55673-89-7	0.194	JBQ	5.02	0.0284	1
11031	OCDF	39001-02-0	3.87	JB	10.0	0.0387	1
Toxic Equivalents	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.441				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	69	25 - 164
13C12-12378-PeCDD	95	25 - 181
13C12-123478-HxCDD	85	32 - 141
13C12-123678-HxCDD	85	28 - 130
13C12-123789-HxCDD	86	28 - 130
13C12-1234678-HpCDD	97	23 - 140
13C12-OCDD	106	17 - 157
13C12-2378-TCDF	64	24 - 169
13C12-12378-PeCDF	92	24 - 185
13C12-23478-PeCDF	92	21 - 178
13C12-123478-HxCDF	82	26 - 152
13C12-123678-HxCDF	87	26 - 123
13C12-234678-HxCDF	84	28 - 136
13C12-123789-HxCDF	85	29 - 147
13C12-1234678-HpCDF	110	28 - 143
13C12-1234789-HpCDF	93	26 - 138
13C12-OCDF	98	17 - 157

Dioxins/Furans Data Qualifiers:

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

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

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Analysis Report

Sample Description: SL-536-SA7-SB-3.0-4.0 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7022144
LLI Group # 1382816
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/12/2013 08:50 by SM

Submitted: 04/15/2013 09:00
Reported: 04/25/2013 14:24

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

SA736 SDG#: PH030-03BKG

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

F *Interference is present*
S *Saturation of detection signal*

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

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Analysis Report

Sample Description: SL-536-SA7-SB-3.0-4.0 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7022144
LLI Group # 1382816
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/12/2013 08:50 by SM

Submitted: 04/15/2013 09:00
Reported: 04/25/2013 14:24

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

SA736 SDG#: PH030-03BKG

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13110SLA026	04/25/2013	07:19	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	13110SLA026	04/21/2013	07:00	Joseph S Feister	1
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	13106A16A	04/16/2013	20:44	Laura M Krieger	24.8
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201310530763	04/15/2013	10:59	Larry E Bevins	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201310530763	04/15/2013	11:00	Larry E Bevins	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	3	201310530763	04/15/2013	11:00	Larry E Bevins	n.a.
10592	19a PCBs and PCTs 8082A	SW-846 8082A	1	131080019A	04/22/2013	21:55	Monica M Souders	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	131080019A	04/19/2013	09:00	Olivia Arosemena	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	131060013A	04/19/2013	11:36	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	131060013A	04/16/2013	13:00	David S Schrum	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13106003	04/18/2013	00:27	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13106003	04/16/2013	13:00	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010C	1	131070637001	04/21/2013	19:14	Tara L Snyder	1
06944	Antimony	SW-846 6010C	1	131070637001	04/21/2013	19:14	Tara L Snyder	1
06935	Arsenic	SW-846 6010C	1	131070637001	04/21/2013	19:14	Tara L Snyder	1
06946	Barium	SW-846 6010C	1	131070637001	04/21/2013	19:14	Tara L Snyder	1
06947	Beryllium	SW-846 6010C	1	131070637001	04/21/2013	19:14	Tara L Snyder	1
07914	Boron	SW-846 6010C	1	131070637001	04/21/2013	19:14	Tara L Snyder	1
06949	Cadmium	SW-846 6010C	1	131070637001	04/21/2013	19:14	Tara L Snyder	1
01650	Calcium	SW-846 6010C	1	131070637001	04/21/2013	19:14	Tara L Snyder	1
06951	Chromium	SW-846 6010C	1	131070637001	04/21/2013	19:14	Tara L Snyder	1
06952	Cobalt	SW-846 6010C	1	131070637001	04/21/2013	19:14	Tara L Snyder	1
06953	Copper	SW-846 6010C	1	131070637001	04/21/2013	19:14	Tara L Snyder	1
01654	Iron	SW-846 6010C	1	131070637001	04/21/2013	19:14	Tara L Snyder	1
06955	Lead	SW-846 6010C	1	131070637001	04/21/2013	19:14	Tara L Snyder	1
01656	Lithium	SW-846 6010C	1	131070637001	04/21/2013	19:14	Tara L Snyder	1
01657	Magnesium	SW-846 6010C	1	131070637001	04/21/2013	19:14	Tara L Snyder	1
06958	Manganese	SW-846 6010C	1	131070637001	04/21/2013	19:14	Tara L Snyder	1
06960	Molybdenum	SW-846 6010C	1	131070637001	04/21/2013	19:14	Tara L Snyder	1
06961	Nickel	SW-846 6010C	1	131070637001	04/21/2013	19:14	Tara L Snyder	1
10145	Phosphorus	SW-846 6010C	1	131070637001	04/21/2013	19:14	Tara L Snyder	1
01662	Potassium	SW-846 6010C	1	131070637001	04/21/2013	19:14	Tara L Snyder	1
01667	Sodium	SW-846 6010C	1	131070637001	04/21/2013	19:14	Tara L Snyder	1
06969	Tin	SW-846 6010C	1	131070637001	04/21/2013	19:14	Tara L Snyder	1
06970	Titanium	SW-846 6010C	1	131070637001	04/21/2013	19:14	Tara L Snyder	1
06971	Vanadium	SW-846 6010C	1	131070637001	04/21/2013	19:14	Tara L Snyder	1
06972	Zinc	SW-846 6010C	1	131070637001	04/21/2013	19:14	Tara L Snyder	1

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

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Analysis Report

Sample Description: SL-536-SA7-SB-3.0-4.0 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7022144
LLI Group # 1382816
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/12/2013 08:50 by SM

Submitted: 04/15/2013 09:00
Reported: 04/25/2013 14:24

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

SA736 SDG#: PH030-03BKG

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10146	Zirconium	SW-846 6010C	1	131070637001	04/21/2013 19:14	Tara L Snyder	1
06141	Selenium	SW-846 6020A	1	131070637001B	04/21/2013 01:42	David K Beck	2
06142	Silver	SW-846 6020A	1	131070637001A	04/21/2013 01:42	David K Beck	2
06144	Strontium	SW-846 6020A	1	131070637001A	04/21/2013 01:42	David K Beck	2
06145	Thallium	SW-846 6020A	1	131070637001A	04/21/2013 01:42	David K Beck	2
00159	3a Mercury 7471A	SW-846 7471B	1	131070638001	04/18/2013 07:57	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	131070637001	04/17/2013 23:35	Annamaria Stipkovits	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	131070638001	04/18/2013 02:45	Annamaria Stipkovits	1
00394	15a pH by 9045C	SW-846 9045D modified	1	13107039401A	04/17/2013 17:30	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13112162401A	04/23/2013 22:37	Scott W Freisher	1

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

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Analysis Report

Sample Description: SL-536-SA7-SB-3.0-4.0MS Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7022145
LLI Group # 1382816
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/12/2013 08:50 by SM

Submitted: 04/15/2013 09:00
Reported: 04/25/2013 14:24

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

SA736 SDG#: PH030-03MS

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	33		1.7	0.68	1
12969	Acenaphthylene	208-96-8	35		1.7	0.34	1
12969	Anthracene	120-12-7	35		1.7	0.34	1
12969	Benzo(a)anthracene	56-55-3	38		1.7	0.68	1
12969	Benzo(a)pyrene	50-32-8	35		1.7	0.68	1
12969	Benzo(b)fluoranthene	205-99-2	39		1.7	0.68	1
12969	Benzo(e)pyrene	192-97-2	31		17	3.4	1
12969	Benzo(g,h,i)perylene	191-24-2	29		1.7	0.68	1
12969	Benzo(k)fluoranthene	207-08-9	36		1.7	0.68	1
12969	Butylbenzylphthalate	85-68-7	36		18	6.1	1
12969	Di-n-butylphthalate	84-74-2	30		18	6.1	1
12969	Chrysene	218-01-9	38		1.7	0.34	1
12969	Dibenz(a,h)anthracene	53-70-3	29		1.7	0.68	1
12969	Diethylphthalate	84-66-2	29		18	6.1	1
12969	Dimethylphthalate	131-11-3	32		18	6.1	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	44		18	6.1	1
12969	Fluoranthene	206-44-0	37		1.7	0.68	1
12969	Fluorene	86-73-7	38		1.7	0.68	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	30		1.7	0.68	1
12969	1-Methylnaphthalene	90-12-0	35		1.7	0.68	1
12969	2-Methylnaphthalene	91-57-6	34		1.7	0.68	1
12969	Naphthalene	91-20-3	33		1.7	0.68	1
12969	N-Nitrosodimethylamine	62-75-9	29		1.7	0.68	1
12969	Di-n-octylphthalate	117-84-0	29		18	6.1	1
12969	Phenanthrene	85-01-8	40		1.7	0.68	1
12969	Pyrene	129-00-0	40		1.7	0.68	1
GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	11		1.1	0.2	25.77
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
10592	Aroclor 5432	63496-31-1	33	U	33	10	1
10592	Aroclor 5442	12642-23-8	33	U	33	10	1
10592	Aroclor 5460	11126-42-4	33	U	33	10	1
10592	PCB-1016	12674-11-2	130		17	3.3	1
10592	PCB-1221	11104-28-2	17	U	17	5.2	1
10592	PCB-1232	11141-16-5	17	U	17	4.1	1
10592	PCB-1242	53469-21-9	17	U	17	3.3	1
10592	PCB-1248	12672-29-6	17	U	17	3.3	1
10592	PCB-1254	11097-69-1	17	U	17	4.4	1
10592	PCB-1260	11096-82-5	140		17	3.9	1
10592	PCB-1262	37324-23-5	17	U	17	3.3	1
10592	PCB-1268	11100-14-4	17	U	17	3.3	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.1	U	5.1	2.1	1
12952	EFH (C15-C20)	n.a.	3.9	J	5.1	2.1	1

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

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Analysis Report

Sample Description: SL-536-SA7-SB-3.0-4.0MS Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7022145
LLI Group # 1382816
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/12/2013 08:50 by SM

Submitted: 04/15/2013 09:00
Reported: 04/25/2013 14:24

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

SA736 SDG#: PH030-03MS

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C21-C30)	n.a.	12		5.1	2.1	1
12952	EFH (C30-C40)	n.a.	24		10	4.1	1
12952	EFH (C8-C11)	n.a.	5.1	U	5.1	2.1	1
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	13,500		39.5	7.61	1
06944	Antimony	7440-36-0	36.2		3.95	0.494	1
06935	Arsenic	7440-38-2	18.4		3.95	0.326	1
06946	Barium	7440-39-3	279		0.987	0.0326	1
06947	Beryllium	7440-41-7	5.39		0.987	0.0661	1
07914	Boron	7440-42-8	189		9.87	0.819	1
06949	Cadmium	7440-43-9	5.61		0.987	0.0326	1
01650	Calcium	7440-70-2	3,400		19.7	3.97	1
06951	Chromium	7440-47-3	38.8		2.96	0.0869	1
06952	Cobalt	7440-48-4	54.8		0.987	0.0888	1
06953	Copper	7440-50-8	30.0		1.97	0.178	1
01654	Iron	7439-89-6	20,500		39.5	3.75	1
06955	Lead	7439-92-1	20.8		2.96	0.464	1
01656	Lithium	7439-93-2	126		3.9	0.54	1
01657	Magnesium	7439-95-4	4,630		9.87	1.71	1
06958	Manganese	7439-96-5	336		0.987	0.0819	1
06960	Molybdenum	7439-98-7	192		1.97	0.168	1
06961	Nickel	7440-02-0	58.2		1.97	0.109	1
10145	Phosphorus	7723-14-0	463		9.87	0.503	1
01662	Potassium	7440-09-7	4,030		98.7	13.3	1
01667	Sodium	7440-23-5	1,000		98.7	16.5	1
06969	Tin	7440-31-5	366		9.87	0.217	1
06970	Titanium	7440-32-6	1,300		0.987	0.168	1
06971	Vanadium	7440-62-2	78.3		0.987	0.109	1
06972	Zinc	7440-66-6	110		3.95	0.197	1
10146	Zirconium	7440-67-7	94.7		4.94	0.819	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	2.28		0.395	0.0987	2
06142	Silver	7440-22-4	9.87		0.197	0.0197	2
06144	Strontium	7440-24-6	19.0		0.395	0.0336	2
06145	Thallium	7440-28-0	0.645		0.197	0.0296	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.187		0.0200	0.0103	1
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11625	14a Moisture Content by 160.3	n.a.	2.6		0.10	0.10	1

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

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Analysis Report

Sample Description: SL-536-SA7-SB-3.0-4.0MS Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7022145
LLI Group # 1382816
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/12/2013 08:50 by SM

Submitted: 04/15/2013 09:00
Reported: 04/25/2013 14:24

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

SA736 SDG#: PH030-03MS

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	18.6	B	1.00	0.0309	1
11031	12378-PeCDD	40321-76-4	98.6		5.02	0.0454	1
11031	123478-HxCDD	39227-28-6	104	B	5.02	0.0410	1
11031	123678-HxCDD	57653-85-7	107	B	5.02	0.0422	1
11031	123789-HxCDD	19408-74-3	107		5.02	0.0394	1
11031	1234678-HpCDD	35822-46-9	153	B	5.02	0.0440	1
11031	OCDD	3268-87-9	684	B	10.0	0.0383	1
11031	2378-TCDF	51207-31-9	19.8		1.00	0.0325	1
11031	12378-PeCDF	57117-41-6	103	B	5.02	0.0277	1
11031	23478-PeCDF	57117-31-4	105	B	5.02	0.0263	1
11031	123478-HxCDF	70648-26-9	107	B	5.02	0.0561	1
11031	123678-HxCDF	57117-44-9	103	B	5.02	0.0523	1
11031	123789-HxCDF	72918-21-9	104	B	5.02	0.0530	1
11031	234678-HxCDF	60851-34-5	105	B	5.02	0.0512	1
11031	1234678-HpCDF	67562-39-4	112	B	5.02	0.0309	1
11031	1234789-HpCDF	55673-89-7	104	B	5.02	0.0386	1
11031	OCDF	39001-02-0	220	B	10.0	0.0286	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	80	25 - 164
13C12-12378-PeCDD	87	25 - 181
13C12-123478-HxCDD	85	32 - 141
13C12-123678-HxCDD	83	28 - 130
13C12-123789-HxCDD	85	28 - 130
13C12-1234678-HpCDD	85	23 - 140
13C12-OCDD	83	17 - 157
13C12-2378-TCDF	73	24 - 169
13C12-12378-PeCDF	83	24 - 185
13C12-23478-PeCDF	84	21 - 178
13C12-123478-HxCDF	86	26 - 152
13C12-123678-HxCDF	88	26 - 123
13C12-234678-HxCDF	86	28 - 136
13C12-123789-HxCDF	93	29 - 147
13C12-1234678-HpCDF	91	28 - 143
13C12-1234789-HpCDF	86	26 - 138
13C12-OCDF	84	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present
S Saturation of detection signal

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

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Analysis Report

Sample Description: SL-536-SA7-SB-3.0-4.0MS Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7022145
LLI Group # 1382816
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/12/2013 08:50 by SM

Submitted: 04/15/2013 09:00
Reported: 04/25/2013 14:24

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

SA736 SDG#: PH030-03MS

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13110SLA026	04/25/2013	07:48	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	13110SLA026	04/21/2013	07:00	Joseph S Feister	1
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	13106A16A	04/16/2013	21:22	Laura M Krieger	25.77
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201310530763	04/15/2013	11:03	Larry E Bevins	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201310530763	04/15/2013	11:04	Larry E Bevins	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	3	201310530763	04/15/2013	11:04	Larry E Bevins	n.a.
10592	19a PCBs and PCTs 8082A	SW-846 8082A	1	131080019A	04/22/2013	22:13	Monica M Souders	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	131080019A	04/19/2013	09:00	Olivia Arosemena	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	131060013A	04/19/2013	11:57	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	131060013A	04/16/2013	13:00	David S Schrum	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13106003	04/18/2013	01:24	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13106003	04/16/2013	13:00	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010C	1	131070637001	04/21/2013	19:25	Tara L Snyder	1
06944	Antimony	SW-846 6010C	1	131070637001	04/21/2013	19:25	Tara L Snyder	1
06935	Arsenic	SW-846 6010C	1	131070637001	04/21/2013	19:25	Tara L Snyder	1
06946	Barium	SW-846 6010C	1	131070637001	04/21/2013	19:25	Tara L Snyder	1
06947	Beryllium	SW-846 6010C	1	131070637001	04/21/2013	19:25	Tara L Snyder	1
07914	Boron	SW-846 6010C	1	131070637001	04/21/2013	19:25	Tara L Snyder	1
06949	Cadmium	SW-846 6010C	1	131070637001	04/21/2013	19:25	Tara L Snyder	1
01650	Calcium	SW-846 6010C	1	131070637001	04/21/2013	19:25	Tara L Snyder	1
06951	Chromium	SW-846 6010C	1	131070637001	04/21/2013	19:25	Tara L Snyder	1
06952	Cobalt	SW-846 6010C	1	131070637001	04/21/2013	19:25	Tara L Snyder	1
06953	Copper	SW-846 6010C	1	131070637001	04/21/2013	19:25	Tara L Snyder	1
01654	Iron	SW-846 6010C	1	131070637001	04/21/2013	19:25	Tara L Snyder	1
06955	Lead	SW-846 6010C	1	131070637001	04/21/2013	19:25	Tara L Snyder	1
01656	Lithium	SW-846 6010C	1	131070637001	04/21/2013	19:25	Tara L Snyder	1
01657	Magnesium	SW-846 6010C	1	131070637001	04/21/2013	19:25	Tara L Snyder	1
06958	Manganese	SW-846 6010C	1	131070637001	04/21/2013	19:25	Tara L Snyder	1
06960	Molybdenum	SW-846 6010C	1	131070637001	04/21/2013	19:25	Tara L Snyder	1
06961	Nickel	SW-846 6010C	1	131070637001	04/21/2013	19:25	Tara L Snyder	1
10145	Phosphorus	SW-846 6010C	1	131070637001	04/21/2013	19:25	Tara L Snyder	1
01662	Potassium	SW-846 6010C	1	131070637001	04/21/2013	19:25	Tara L Snyder	1
01667	Sodium	SW-846 6010C	1	131070637001	04/21/2013	19:25	Tara L Snyder	1
06969	Tin	SW-846 6010C	1	131070637001	04/21/2013	19:25	Tara L Snyder	1
06970	Titanium	SW-846 6010C	1	131070637001	04/21/2013	19:25	Tara L Snyder	1
06971	Vanadium	SW-846 6010C	1	131070637001	04/21/2013	19:25	Tara L Snyder	1
06972	Zinc	SW-846 6010C	1	131070637001	04/21/2013	19:25	Tara L Snyder	1

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

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Analysis Report

Sample Description: SL-536-SA7-SB-3.0-4.0MS Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7022145
LLI Group # 1382816
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/12/2013 08:50 by SM

Submitted: 04/15/2013 09:00
Reported: 04/25/2013 14:24

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

SA736 SDG#: PH030-03MS

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10146	Zirconium	SW-846 6010C	1	131070637001	04/21/2013 19:25	Tara L Snyder	1
06141	Selenium	SW-846 6020A	2	131070637001B	04/24/2013 11:40	David K Beck	2
06142	Silver	SW-846 6020A	1	131070637001A	04/21/2013 01:49	David K Beck	2
06144	Strontium	SW-846 6020A	1	131070637001A	04/21/2013 01:49	David K Beck	2
06145	Thallium	SW-846 6020A	1	131070637001A	04/21/2013 01:49	David K Beck	2
00159	3a Mercury 7471A	SW-846 7471B	1	131070638001	04/18/2013 08:03	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	131070637001	04/17/2013 23:35	Annamaria Stipkovits	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	131070638001	04/18/2013 02:45	Annamaria Stipkovits	1
11625	14a Moisture Content by 160.3	EPA 160.3 modified	1	13112162401A	04/23/2013 22:37	Scott W Freisher	1

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

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Analysis Report

Sample Description: SL-536-SA7-SB-3.0-4.0MSD Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7022146
LLI Group # 1382816
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/12/2013 08:50 by SM

Submitted: 04/15/2013 09:00
Reported: 04/25/2013 14:24

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

SA736 SDG#: PH030-03MSD

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	31		1.7	0.68	1
12969	Acenaphthylene	208-96-8	33		1.7	0.34	1
12969	Anthracene	120-12-7	33		1.7	0.34	1
12969	Benzo(a)anthracene	56-55-3	33		1.7	0.68	1
12969	Benzo(a)pyrene	50-32-8	30		1.7	0.68	1
12969	Benzo(b)fluoranthene	205-99-2	32		1.7	0.68	1
12969	Benzo(e)pyrene	192-97-2	26		17	3.4	1
12969	Benzo(g,h,i)perylene	191-24-2	29		1.7	0.68	1
12969	Benzo(k)fluoranthene	207-08-9	32		1.7	0.68	1
12969	Butylbenzylphthalate	85-68-7	30		18	6.1	1
12969	Di-n-butylphthalate	84-74-2	27		18	6.1	1
12969	Chrysene	218-01-9	31		1.7	0.34	1
12969	Dibenz(a,h)anthracene	53-70-3	30		1.7	0.68	1
12969	Diethylphthalate	84-66-2	30		18	6.1	1
12969	Dimethylphthalate	131-11-3	30		18	6.1	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	39		18	6.1	1
12969	Fluoranthene	206-44-0	27		1.7	0.68	1
12969	Fluorene	86-73-7	37		1.7	0.68	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	30		1.7	0.68	1
12969	1-Methylnaphthalene	90-12-0	34		1.7	0.68	1
12969	2-Methylnaphthalene	91-57-6	33		1.7	0.68	1
12969	Naphthalene	91-20-3	31		1.7	0.68	1
12969	N-Nitrosodimethylamine	62-75-9	37		1.7	0.68	1
12969	Di-n-octylphthalate	117-84-0	25		18	6.1	1
12969	Phenanthrene	85-01-8	35		1.7	0.68	1
12969	Pyrene	129-00-0	24		1.7	0.68	1
GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	12		1.1	0.2	25.93
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
10592	Aroclor 5432	63496-31-1	33	U	33	10	1
10592	Aroclor 5442	12642-23-8	33	U	33	10	1
10592	Aroclor 5460	11126-42-4	33	U	33	10	1
10592	PCB-1016	12674-11-2	150		17	3.3	1
10592	PCB-1221	11104-28-2	17	U	17	5.2	1
10592	PCB-1232	11141-16-5	17	U	17	4.1	1
10592	PCB-1242	53469-21-9	17	U	17	3.3	1
10592	PCB-1248	12672-29-6	17	U	17	3.3	1
10592	PCB-1254	11097-69-1	17	U	17	4.4	1
10592	PCB-1260	11096-82-5	170		17	3.9	1
10592	PCB-1262	37324-23-5	17	U	17	3.3	1
10592	PCB-1268	11100-14-4	17	U	17	3.3	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.1	U	5.1	2.1	1
12952	EFH (C15-C20)	n.a.	5.6		5.1	2.1	1

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

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Analysis Report

Sample Description: SL-536-SA7-SB-3.0-4.0MSD Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7022146
LLI Group # 1382816
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/12/2013 08:50 by SM

Submitted: 04/15/2013 09:00
Reported: 04/25/2013 14:24

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

SA736 SDG#: PH030-03MSD

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C21-C30)	n.a.	17		5.1	2.1	1
12952	EFH (C30-C40)	n.a.	35		10	4.1	1
12952	EFH (C8-C11)	n.a.	5.1	U	5.1	2.1	1
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	14,000		39.5	7.61	1
06944	Antimony	7440-36-0	37.5		3.95	0.494	1
06935	Arsenic	7440-38-2	18.1		3.95	0.326	1
06946	Barium	7440-39-3	269		0.987	0.0326	1
06947	Beryllium	7440-41-7	5.35		0.987	0.0661	1
07914	Boron	7440-42-8	190		9.87	0.819	1
06949	Cadmium	7440-43-9	5.56		0.987	0.0326	1
01650	Calcium	7440-70-2	3,540		19.7	3.97	1
06951	Chromium	7440-47-3	41.9		2.96	0.0869	1
06952	Cobalt	7440-48-4	54.4		0.987	0.0888	1
06953	Copper	7440-50-8	30.0		1.97	0.178	1
01654	Iron	7439-89-6	20,500		39.5	3.75	1
06955	Lead	7439-92-1	20.5		2.96	0.464	1
01656	Lithium	7439-93-2	127		3.9	0.54	1
01657	Magnesium	7439-95-4	4,610		9.87	1.71	1
06958	Manganese	7439-96-5	334		0.987	0.0819	1
06960	Molybdenum	7439-98-7	191		1.97	0.168	1
06961	Nickel	7440-02-0	57.5		1.97	0.109	1
10145	Phosphorus	7723-14-0	497		9.87	0.503	1
01662	Potassium	7440-09-7	3,980		98.7	13.3	1
01667	Sodium	7440-23-5	1,020		98.7	16.5	1
06969	Tin	7440-31-5	364		9.87	0.217	1
06970	Titanium	7440-32-6	1,290		0.987	0.168	1
06971	Vanadium	7440-62-2	77.5		0.987	0.109	1
06972	Zinc	7440-66-6	110		3.95	0.197	1
10146	Zirconium	7440-67-7	94.1		4.94	0.819	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	2.20		0.395	0.0987	2
06142	Silver	7440-22-4	9.97		0.197	0.0197	2
06144	Strontium	7440-24-6	20.2		0.395	0.0336	2
06145	Thallium	7440-28-0	0.617		0.197	0.0296	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.185		0.0200	0.0104	1
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11625	14a Moisture Content by 160.3	n.a.	2.6		0.10	0.10	1

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

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Analysis Report

Sample Description: SL-536-SA7-SB-3.0-4.0MSD Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7022146
LLI Group # 1382816
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/12/2013 08:50 by SM

Submitted: 04/15/2013 09:00
Reported: 04/25/2013 14:24

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

SA736 SDG#: PH030-03MSD

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	19.1	B	1.02	0.0372	1
11031	12378-PeCDD	40321-76-4	101		5.09	0.0323	1
11031	123478-HxCDD	39227-28-6	108	B	5.09	0.0411	1
11031	123678-HxCDD	57653-85-7	105	B	5.09	0.0413	1
11031	123789-HxCDD	19408-74-3	104		5.09	0.0407	1
11031	1234678-HpCDD	35822-46-9	120	B	5.09	0.0423	1
11031	OCDD	3268-87-9	375	B	10.2	0.0327	1
11031	2378-TCDF	51207-31-9	20.2		1.02	0.0286	1
11031	12378-PeCDF	57117-41-6	104	B	5.09	0.0251	1
11031	23478-PeCDF	57117-31-4	105	B	5.09	0.0232	1
11031	123478-HxCDF	70648-26-9	107	B	5.09	0.0436	1
11031	123678-HxCDF	57117-44-9	105	B	5.09	0.0415	1
11031	123789-HxCDF	72918-21-9	106	B	5.09	0.0449	1
11031	234678-HxCDF	60851-34-5	106	B	5.09	0.0425	1
11031	1234678-HpCDF	67562-39-4	109	B	5.09	0.0332	1
11031	1234789-HpCDF	55673-89-7	105	B	5.09	0.0425	1
11031	OCDF	39001-02-0	212	B	10.2	0.0322	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	75	25 - 164
13C12-12378-PeCDD	85	25 - 181
13C12-123478-HxCDD	84	32 - 141
13C12-123678-HxCDD	85	28 - 130
13C12-123789-HxCDD	86	28 - 130
13C12-1234678-HpCDD	84	23 - 140
13C12-OCDD	80	17 - 157
13C12-2378-TCDF	69	24 - 169
13C12-12378-PeCDF	83	24 - 185
13C12-23478-PeCDF	84	21 - 178
13C12-123478-HxCDF	86	26 - 152
13C12-123678-HxCDF	86	26 - 123
13C12-234678-HxCDF	85	28 - 136
13C12-123789-HxCDF	91	29 - 147
13C12-1234678-HpCDF	92	28 - 143
13C12-1234789-HpCDF	84	26 - 138
13C12-OCDF	80	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present
S Saturation of detection signal

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

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Analysis Report

Sample Description: SL-536-SA7-SB-3.0-4.0MSD Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7022146
LLI Group # 1382816
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/12/2013 08:50 by SM

Submitted: 04/15/2013 09:00
Reported: 04/25/2013 14:24

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

SA736 SDG#: PH030-03MSD

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13110SLA026	04/25/2013	08:17	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	13110SLA026	04/21/2013	07:00	Joseph S Feister	1
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	13106A16A	04/16/2013	22:00	Laura M Krieger	25.93
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201310530763	04/15/2013	11:01	Larry E Bevins	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201310530763	04/15/2013	11:02	Larry E Bevins	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	3	201310530763	04/15/2013	11:02	Larry E Bevins	n.a.
10592	19a PCBs and PCTs 8082A	SW-846 8082A	1	131080019A	04/22/2013	22:32	Monica M Souders	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	131080019A	04/19/2013	09:00	Olivia Arosemena	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	131060013A	04/19/2013	12:38	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	131060013A	04/16/2013	13:00	David S Schrum	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13106003	04/18/2013	02:20	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13106003	04/16/2013	13:00	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010C	1	131070637001	04/21/2013	19:29	Tara L Snyder	1
06944	Antimony	SW-846 6010C	1	131070637001	04/21/2013	19:29	Tara L Snyder	1
06935	Arsenic	SW-846 6010C	1	131070637001	04/21/2013	19:29	Tara L Snyder	1
06946	Barium	SW-846 6010C	1	131070637001	04/21/2013	19:29	Tara L Snyder	1
06947	Beryllium	SW-846 6010C	1	131070637001	04/21/2013	19:29	Tara L Snyder	1
07914	Boron	SW-846 6010C	1	131070637001	04/21/2013	19:29	Tara L Snyder	1
06949	Cadmium	SW-846 6010C	1	131070637001	04/21/2013	19:29	Tara L Snyder	1
01650	Calcium	SW-846 6010C	1	131070637001	04/21/2013	19:29	Tara L Snyder	1
06951	Chromium	SW-846 6010C	1	131070637001	04/21/2013	19:29	Tara L Snyder	1
06952	Cobalt	SW-846 6010C	1	131070637001	04/21/2013	19:29	Tara L Snyder	1
06953	Copper	SW-846 6010C	1	131070637001	04/21/2013	19:29	Tara L Snyder	1
01654	Iron	SW-846 6010C	1	131070637001	04/21/2013	19:29	Tara L Snyder	1
06955	Lead	SW-846 6010C	1	131070637001	04/21/2013	19:29	Tara L Snyder	1
01656	Lithium	SW-846 6010C	1	131070637001	04/21/2013	19:29	Tara L Snyder	1
01657	Magnesium	SW-846 6010C	1	131070637001	04/21/2013	19:29	Tara L Snyder	1
06958	Manganese	SW-846 6010C	1	131070637001	04/21/2013	19:29	Tara L Snyder	1
06960	Molybdenum	SW-846 6010C	1	131070637001	04/21/2013	19:29	Tara L Snyder	1
06961	Nickel	SW-846 6010C	1	131070637001	04/21/2013	19:29	Tara L Snyder	1
10145	Phosphorus	SW-846 6010C	1	131070637001	04/21/2013	19:29	Tara L Snyder	1
01662	Potassium	SW-846 6010C	1	131070637001	04/21/2013	19:29	Tara L Snyder	1
01667	Sodium	SW-846 6010C	1	131070637001	04/21/2013	19:29	Tara L Snyder	1
06969	Tin	SW-846 6010C	1	131070637001	04/21/2013	19:29	Tara L Snyder	1
06970	Titanium	SW-846 6010C	1	131070637001	04/21/2013	19:29	Tara L Snyder	1
06971	Vanadium	SW-846 6010C	1	131070637001	04/21/2013	19:29	Tara L Snyder	1
06972	Zinc	SW-846 6010C	1	131070637001	04/21/2013	19:29	Tara L Snyder	1

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

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Analysis Report

Sample Description: SL-536-SA7-SB-3.0-4.0MSD Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7022146
LLI Group # 1382816
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/12/2013 08:50 by SM

Submitted: 04/15/2013 09:00
Reported: 04/25/2013 14:24

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

SA736 SDG#: PH030-03MSD

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10146	Zirconium	SW-846 6010C	1	131070637001	04/21/2013 19:29	Tara L Snyder	1
06141	Selenium	SW-846 6020A	1	131070637001B	04/24/2013 11:42	David K Beck	2
06142	Silver	SW-846 6020A	1	131070637001A	04/21/2013 01:52	David K Beck	2
06144	Strontium	SW-846 6020A	1	131070637001A	04/21/2013 01:52	David K Beck	2
06145	Thallium	SW-846 6020A	1	131070637001A	04/21/2013 01:52	David K Beck	2
00159	3a Mercury 7471A	SW-846 7471B	1	131070638001	04/18/2013 08:05	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	131070637001	04/17/2013 23:35	Annamaria Stipkovits	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	131070638001	04/18/2013 02:45	Annamaria Stipkovits	1
11625	14a Moisture Content by 160.3	EPA 160.3 modified	1	13112162401A	04/23/2013 22:37	Scott W Freisher	1

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

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Analysis Report

Sample Description: SL-536-SA7-SB-3.0-4.0DUP Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7022147
LLI Group # 1382816
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/12/2013 08:50 by SM

Submitted: 04/15/2013 09:00
Reported: 04/25/2013 14:24

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

SA736 SDG#: PH030-03DUP

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	11,100		39.5	7.61	1
06944	Antimony	7440-36-0	1.52	J	3.95	0.494	1
06935	Arsenic	7440-38-2	2.86	J	3.95	0.326	1
06946	Barium	7440-39-3	70.5		0.987	0.0326	1
06947	Beryllium	7440-41-7	0.485	J	0.987	0.0661	1
07914	Boron	7440-42-8	3.08	J	9.87	0.819	1
06949	Cadmium	7440-43-9	0.448	J	0.987	0.0326	1
01650	Calcium	7440-70-2	2,940		19.7	3.97	1
06951	Chromium	7440-47-3	18.3		2.96	0.0869	1
06952	Cobalt	7440-48-4	4.99		0.987	0.0888	1
06953	Copper	7440-50-8	5.26		1.97	0.178	1
01654	Iron	7439-89-6	19,500		39.5	3.75	1
06955	Lead	7439-92-1	5.51		2.96	0.464	1
01656	Lithium	7439-93-2	24.4		3.9	0.54	1
01657	Magnesium	7439-95-4	4,070		9.87	1.71	1
06958	Manganese	7439-96-5	276		0.987	0.0819	1
06960	Molybdenum	7439-98-7	0.445	J	1.97	0.168	1
06961	Nickel	7440-02-0	8.69		1.97	0.109	1
10145	Phosphorus	7723-14-0	378		9.87	0.503	1
01662	Potassium	7440-09-7	2,820		98.7	13.3	1
01667	Sodium	7440-23-5	62.6	J	98.7	16.5	1
06969	Tin	7440-31-5	2.75	J	9.87	0.217	1
06970	Titanium	7440-32-6	1,080		0.987	0.168	1
06971	Vanadium	7440-62-2	28.9		0.987	0.109	1
06972	Zinc	7440-66-6	55.7		3.95	0.197	1
10146	Zirconium	7440-67-7	2.01	J	4.94	0.819	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.395	U	0.395	0.0987	2
06142	Silver	7440-22-4	0.0331	J	0.197	0.0197	2
06144	Strontium	7440-24-6	11.7		0.395	0.0336	2
06145	Thallium	7440-28-0	0.225		0.197	0.0296	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0203	U	0.0203	0.0105	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045C	n.a.	7.69		0.0100	0.0100	1
	The pH was measured in water at 22.2 C.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11625	14a Moisture Content by 160.3	n.a.	2.6		0.10	0.10	1
11626	14a Moisture Content by 160.3	n.a.	2.8		0.10	0.10	1
	The duplicate moisture value is provided to assess the precision of the moisture test. For comparability purposes, the initial moisture determination is the value used to perform dry weight calculations.						

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

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Analysis Report

Sample Description: SL-536-SA7-SB-3.0-4.0DUP Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7022147
LLI Group # 1382816
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/12/2013 08:50 by SM

Submitted: 04/15/2013 09:00
Reported: 04/25/2013 14:24

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

SA736 SDG#: PH030-03DUP

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01643	Aluminum	SW-846 6010C	1	131070637001	04/21/2013 19:22	Tara L Snyder	1
06944	Antimony	SW-846 6010C	1	131070637001	04/21/2013 19:22	Tara L Snyder	1
06935	Arsenic	SW-846 6010C	1	131070637001	04/21/2013 19:22	Tara L Snyder	1
06946	Barium	SW-846 6010C	1	131070637001	04/21/2013 19:22	Tara L Snyder	1
06947	Beryllium	SW-846 6010C	1	131070637001	04/21/2013 19:22	Tara L Snyder	1
07914	Boron	SW-846 6010C	1	131070637001	04/21/2013 19:22	Tara L Snyder	1
06949	Cadmium	SW-846 6010C	1	131070637001	04/21/2013 19:22	Tara L Snyder	1
01650	Calcium	SW-846 6010C	1	131070637001	04/21/2013 19:22	Tara L Snyder	1
06951	Chromium	SW-846 6010C	1	131070637001	04/21/2013 19:22	Tara L Snyder	1
06952	Cobalt	SW-846 6010C	1	131070637001	04/21/2013 19:22	Tara L Snyder	1
06953	Copper	SW-846 6010C	1	131070637001	04/21/2013 19:22	Tara L Snyder	1
01654	Iron	SW-846 6010C	1	131070637001	04/21/2013 19:22	Tara L Snyder	1
06955	Lead	SW-846 6010C	1	131070637001	04/21/2013 19:22	Tara L Snyder	1
01656	Lithium	SW-846 6010C	1	131070637001	04/21/2013 19:22	Tara L Snyder	1
01657	Magnesium	SW-846 6010C	1	131070637001	04/21/2013 19:22	Tara L Snyder	1
06958	Manganese	SW-846 6010C	1	131070637001	04/21/2013 19:22	Tara L Snyder	1
06960	Molybdenum	SW-846 6010C	1	131070637001	04/21/2013 19:22	Tara L Snyder	1
06961	Nickel	SW-846 6010C	1	131070637001	04/21/2013 19:22	Tara L Snyder	1
10145	Phosphorus	SW-846 6010C	1	131070637001	04/21/2013 19:22	Tara L Snyder	1
01662	Potassium	SW-846 6010C	1	131070637001	04/21/2013 19:22	Tara L Snyder	1
01667	Sodium	SW-846 6010C	1	131070637001	04/21/2013 19:22	Tara L Snyder	1
06969	Tin	SW-846 6010C	1	131070637001	04/21/2013 19:22	Tara L Snyder	1
06970	Titanium	SW-846 6010C	1	131070637001	04/21/2013 19:22	Tara L Snyder	1
06971	Vanadium	SW-846 6010C	1	131070637001	04/21/2013 19:22	Tara L Snyder	1
06972	Zinc	SW-846 6010C	1	131070637001	04/21/2013 19:22	Tara L Snyder	1
10146	Zirconium	SW-846 6010C	1	131070637001	04/21/2013 19:22	Tara L Snyder	1
06141	Selenium	SW-846 6020A	1	131070637001B	04/21/2013 01:47	David K Beck	2
06142	Silver	SW-846 6020A	1	131070637001A	04/21/2013 01:47	David K Beck	2
06144	Strontium	SW-846 6020A	1	131070637001A	04/21/2013 01:47	David K Beck	2
06145	Thallium	SW-846 6020A	1	131070637001A	04/21/2013 01:47	David K Beck	2
00159	3a Mercury 7471A	SW-846 7471B	1	131070638001	04/18/2013 08:01	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	131070637001	04/17/2013 23:35	Annamaria Stipkovits	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	131070638001	04/18/2013 02:45	Annamaria Stipkovits	1
00394	15a pH by 9045C	SW-846 9045D modified	1	13107039401A	04/17/2013 17:30	Luz M Groff	1
11625	14a Moisture Content by 160.3	EPA 160.3 modified	1	13112162401A	04/23/2013 22:37	Scott W Freisher	1
11626	14a Moisture Content by 160.3	EPA 160.3 modified	1	13112162401A	04/23/2013 22:37	Scott W Freisher	1

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

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Analysis Report

Sample Description: SL-836-SA7-SB-3.0-4.0 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7022148
LLI Group # 1382816
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/12/2013 09:00 by SM

Submitted: 04/15/2013 09:00
Reported: 04/25/2013 14:24

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

78363 SDG#: PH030-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.68	1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.34	1
12969	Anthracene	120-12-7	1.7	U	1.7	0.34	1
12969	Benzo(a)anthracene	56-55-3	0.91	J	1.7	0.68	1
12969	Benzo(a)pyrene	50-32-8	1.5	J	1.7	0.68	1
12969	Benzo(b)fluoranthene	205-99-2	3.5		1.7	0.68	1
12969	Benzo(e)pyrene	192-97-2	17	U	17	3.4	1
12969	Benzo(g,h,i)perylene	191-24-2	1.7	J	1.7	0.68	1
12969	Benzo(k)fluoranthene	207-08-9	1.0	J	1.7	0.68	1
12969	Butylbenzylphthalate	85-68-7	18	U	18	6.1	1
12969	Di-n-butylphthalate	84-74-2	18	U	18	6.1	1
12969	Chrysene	218-01-9	2.6		1.7	0.34	1
12969	Dibenz(a,h)anthracene	53-70-3	1.7	U	1.7	0.68	1
12969	Diethylphthalate	84-66-2	18	U	18	6.1	1
12969	Dimethylphthalate	131-11-3	18	U	18	6.1	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	18	U	18	6.1	1
12969	Fluoranthene	206-44-0	3.5		1.7	0.68	1
12969	Fluorene	86-73-7	1.7	U	1.7	0.68	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.3	J	1.7	0.68	1
12969	1-Methylnaphthalene	90-12-0	1.7	U	1.7	0.68	1
12969	2-Methylnaphthalene	91-57-6	1.7	U	1.7	0.68	1
12969	Naphthalene	91-20-3	1.7	U	1.7	0.68	1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.68	1
12969	Di-n-octylphthalate	117-84-0	18	U	18	6.1	1
12969	Phenanthrene	85-01-8	2.0		1.7	0.68	1
12969	Pyrene	129-00-0	3.8		1.7	0.68	1
GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	1.0	U	1.0	0.2	25.35
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
10592	Aroclor 5432	63496-31-1	33	U	33	10	1
10592	Aroclor 5442	12642-23-8	33	U	33	10	1
10592	Aroclor 5460	11126-42-4	33	U	33	10	1
10592	PCB-1016	12674-11-2	17	U	17	3.3	1
10592	PCB-1221	11104-28-2	17	U	17	5.2	1
10592	PCB-1232	11141-16-5	17	U	17	4.1	1
10592	PCB-1242	53469-21-9	17	U	17	3.3	1
10592	PCB-1248	12672-29-6	17	U	17	3.3	1
10592	PCB-1254	11097-69-1	17	U	17	4.5	1
10592	PCB-1260	11096-82-5	17	U	17	3.9	1
10592	PCB-1262	37324-23-5	17	U	17	3.3	1
10592	PCB-1268	11100-14-4	17	U	17	3.3	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.1	U	5.1	2.1	1
12952	EFH (C15-C20)	n.a.	5.1	U	5.1	2.1	1

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

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Analysis Report

Sample Description: SL-836-SA7-SB-3.0-4.0 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7022148
LLI Group # 1382816
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/12/2013 09:00 by SM

Submitted: 04/15/2013 09:00
Reported: 04/25/2013 14:24

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

78363 SDG#: PH030-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C21-C30)	n.a.	5.1	U	5.1	2.1	1
12952	EFH (C30-C40)	n.a.	10	U	10	4.1	1
12952	EFH (C8-C11)	n.a.	5.1	U	5.1	2.1	1
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	10,800		39.6	7.63	1
06944	Antimony	7440-36-0	1.47	J	3.96	0.495	1
06935	Arsenic	7440-38-2	2.38	J	3.96	0.326	1
06946	Barium	7440-39-3	66.7		0.989	0.0326	1
06947	Beryllium	7440-41-7	0.501	J	0.989	0.0663	1
07914	Boron	7440-42-8	2.90	J	9.89	0.821	1
06949	Cadmium	7440-43-9	0.453	J	0.989	0.0326	1
01650	Calcium	7440-70-2	2,540		19.8	3.98	1
06951	Chromium	7440-47-3	14.0		2.97	0.0871	1
06952	Cobalt	7440-48-4	4.93		0.989	0.0890	1
06953	Copper	7440-50-8	4.57		1.98	0.178	1
01654	Iron	7439-89-6	19,600		39.6	3.76	1
06955	Lead	7439-92-1	5.13		2.97	0.465	1
01656	Lithium	7439-93-2	23.8		4.0	0.54	1
01657	Magnesium	7439-95-4	3,870		9.89	1.71	1
06958	Manganese	7439-96-5	276		0.989	0.0821	1
06960	Molybdenum	7439-98-7	0.271	J	1.98	0.168	1
06961	Nickel	7440-02-0	7.16		1.98	0.109	1
10145	Phosphorus	7723-14-0	344		9.89	0.505	1
01662	Potassium	7440-09-7	2,710		98.9	13.4	1
01667	Sodium	7440-23-5	59.4	J	98.9	16.5	1
06969	Tin	7440-31-5	2.71	J	9.89	0.218	1
06970	Titanium	7440-32-6	979		0.989	0.168	1
06971	Vanadium	7440-62-2	26.8		0.989	0.109	1
06972	Zinc	7440-66-6	54.9		3.96	0.198	1
10146	Zirconium	7440-67-7	4.95	U	4.95	0.821	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.396	U	0.396	0.0989	2
06142	Silver	7440-22-4	0.198	U	0.198	0.0198	2
06144	Strontium	7440-24-6	10.9		0.396	0.0336	2
06145	Thallium	7440-28-0	0.248		0.198	0.0297	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0200	U	0.0200	0.0103	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045C	n.a.	7.92		0.0100	0.0100	1
	The pH was measured in water at 22.3 C.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	2.8		0.10	0.10	1

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

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Analysis Report

Sample Description: SL-836-SA7-SB-3.0-4.0 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7022148
LLI Group # 1382816
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/12/2013 09:00 by SM

Submitted: 04/15/2013 09:00
Reported: 04/25/2013 14:24

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

78363 SDG#: PH030-04

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

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

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

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Analysis Report

Sample Description: SL-836-SA7-SB-3.0-4.0 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7022148
LLI Group # 1382816
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/12/2013 09:00 by SM

Submitted: 04/15/2013 09:00
Reported: 04/25/2013 14:24

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

78363 SDG#: PH030-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0709 JBQ	1.03	0.0244	1
11031	12378-PeCDD	40321-76-4	0.380 J	5.13	0.0346	1
11031	123478-HxCDD	39227-28-6	0.724 JB	5.13	0.0326	1
11031	123678-HxCDD	57653-85-7	1.87 JB	5.13	0.0322	1
11031	123789-HxCDD	19408-74-3	1.41 J	5.13	0.0302	1
11031	1234678-HpCDD	35822-46-9	38.9 B	5.13	0.0387	1
11031	OCDD	3268-87-9	358 B	10.3	0.0358	1
11031	2378-TCDF	51207-31-9	0.0308 JQ	1.03	0.0269	1
11031	12378-PeCDF	57117-41-6	0.260 JBQ	5.13	0.0187	1
11031	23478-PeCDF	57117-31-4	0.231 JB	5.13	0.0179	1
11031	123478-HxCDF	70648-26-9	0.302 JB	5.13	0.0306	1
11031	123678-HxCDF	57117-44-9	0.396 JB	5.13	0.0285	1
11031	123789-HxCDF	72918-21-9	0.187 JB	5.13	0.0297	1
11031	234678-HxCDF	60851-34-5	0.439 JB	5.13	0.0267	1
11031	1234678-HpCDF	67562-39-4	5.29 B	5.13	0.0198	1
11031	1234789-HpCDF	55673-89-7	0.529 JB	5.13	0.0274	1
11031	OCDF	39001-02-0	9.39 JB	10.3	0.0276	1
Toxic Equivalents	**EPA 1613B**		ng/kg	ng/kg	ng/kg	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	1.54			1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	85	25 - 164
13C12-12378-PeCDD	96	25 - 181
13C12-123478-HxCDD	96	32 - 141
13C12-123678-HxCDD	99	28 - 130
13C12-123789-HxCDD	101	28 - 130
13C12-1234678-HpCDD	98	23 - 140
13C12-OCDD	95	17 - 157
13C12-2378-TCDF	79	24 - 169
13C12-12378-PeCDF	95	24 - 185
13C12-23478-PeCDF	94	21 - 178
13C12-123478-HxCDF	99	26 - 152
13C12-123678-HxCDF	101	26 - 123
13C12-234678-HxCDF	99	28 - 136
13C12-123789-HxCDF	101	29 - 147
13C12-1234678-HpCDF	115	28 - 143
13C12-1234789-HpCDF	93	26 - 138
13C12-OCDF	90	17 - 157

Dioxins/Furans Data Qualifiers:

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

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

Sample Description: SL-836-SA7-SB-3.0-4.0 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7022148
LLI Group # 1382816
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/12/2013 09:00 by SM

Submitted: 04/15/2013 09:00
Reported: 04/25/2013 14:24

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

78363 SDG#: PH030-04

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

F *Interference is present*
S *Saturation of detection signal*

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

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Analysis Report

Sample Description: SL-836-SA7-SB-3.0-4.0 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7022148
LLI Group # 1382816
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/12/2013 09:00 by SM

Submitted: 04/15/2013 09:00
Reported: 04/25/2013 14:24

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

78363 SDG#: PH030-04

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13110SLA026	04/25/2013	08:46	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	13110SLA026	04/21/2013	07:00	Joseph S Feister	1
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	13106A16A	04/16/2013	18:12	Laura M Krieger	25.35
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201310530763	04/15/2013	11:09	Larry E Bevins	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201310530763	04/15/2013	11:10	Larry E Bevins	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	3	201310530763	04/15/2013	11:10	Larry E Bevins	n.a.
10592	19a PCBs and PCTs 8082A	SW-846 8082A	1	131080019A	04/22/2013	22:50	Monica M Souders	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	131080019A	04/19/2013	09:00	Olivia Arosemena	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	131060013A	04/19/2013	10:34	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	131060013A	04/16/2013	13:00	David S Schrum	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13106003	04/18/2013	03:17	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13106003	04/16/2013	13:00	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010C	1	131070637001	04/21/2013	19:40	Tara L Snyder	1
06944	Antimony	SW-846 6010C	1	131070637001	04/21/2013	19:40	Tara L Snyder	1
06935	Arsenic	SW-846 6010C	1	131070637001	04/21/2013	19:40	Tara L Snyder	1
06946	Barium	SW-846 6010C	1	131070637001	04/21/2013	19:40	Tara L Snyder	1
06947	Beryllium	SW-846 6010C	1	131070637001	04/21/2013	19:40	Tara L Snyder	1
07914	Boron	SW-846 6010C	1	131070637001	04/21/2013	19:40	Tara L Snyder	1
06949	Cadmium	SW-846 6010C	1	131070637001	04/21/2013	19:40	Tara L Snyder	1
01650	Calcium	SW-846 6010C	1	131070637001	04/21/2013	19:40	Tara L Snyder	1
06951	Chromium	SW-846 6010C	1	131070637001	04/21/2013	19:40	Tara L Snyder	1
06952	Cobalt	SW-846 6010C	1	131070637001	04/21/2013	19:40	Tara L Snyder	1
06953	Copper	SW-846 6010C	1	131070637001	04/21/2013	19:40	Tara L Snyder	1
01654	Iron	SW-846 6010C	1	131070637001	04/21/2013	19:40	Tara L Snyder	1
06955	Lead	SW-846 6010C	1	131070637001	04/21/2013	19:40	Tara L Snyder	1
01656	Lithium	SW-846 6010C	1	131070637001	04/21/2013	19:40	Tara L Snyder	1
01657	Magnesium	SW-846 6010C	1	131070637001	04/21/2013	19:40	Tara L Snyder	1
06958	Manganese	SW-846 6010C	1	131070637001	04/21/2013	19:40	Tara L Snyder	1
06960	Molybdenum	SW-846 6010C	1	131070637001	04/21/2013	19:40	Tara L Snyder	1
06961	Nickel	SW-846 6010C	1	131070637001	04/21/2013	19:40	Tara L Snyder	1
10145	Phosphorus	SW-846 6010C	1	131070637001	04/21/2013	19:40	Tara L Snyder	1
01662	Potassium	SW-846 6010C	1	131070637001	04/21/2013	19:40	Tara L Snyder	1
01667	Sodium	SW-846 6010C	1	131070637001	04/21/2013	19:40	Tara L Snyder	1
06969	Tin	SW-846 6010C	1	131070637001	04/21/2013	19:40	Tara L Snyder	1
06970	Titanium	SW-846 6010C	1	131070637001	04/21/2013	19:40	Tara L Snyder	1
06971	Vanadium	SW-846 6010C	1	131070637001	04/21/2013	19:40	Tara L Snyder	1
06972	Zinc	SW-846 6010C	1	131070637001	04/21/2013	19:40	Tara L Snyder	1

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

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Analysis Report

Sample Description: SL-836-SA7-SB-3.0-4.0 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7022148
LLI Group # 1382816
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/12/2013 09:00 by SM

Submitted: 04/15/2013 09:00
Reported: 04/25/2013 14:24

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

78363 SDG#: PH030-04

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10146	Zirconium	SW-846 6010C	1	131070637001	04/21/2013 19:40	Tara L Snyder	1
06141	Selenium	SW-846 6020A	1	131070637001B	04/21/2013 01:59	David K Beck	2
06142	Silver	SW-846 6020A	1	131070637001A	04/21/2013 01:59	David K Beck	2
06144	Strontium	SW-846 6020A	1	131070637001A	04/21/2013 01:59	David K Beck	2
06145	Thallium	SW-846 6020A	1	131070637001A	04/21/2013 01:59	David K Beck	2
00159	3a Mercury 7471A	SW-846 7471B	1	131070638001	04/18/2013 08:07	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	131070637001	04/17/2013 23:35	Annamaria Stipkovits	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	131070638001	04/18/2013 02:45	Annamaria Stipkovits	1
00394	15a pH by 9045C	SW-846 9045D modified	1	13107039401A	04/17/2013 17:30	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13112162401A	04/23/2013 22:37	Scott W Freisher	1

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

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Analysis Report

Sample Description: SL-535-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7022149
LLI Group # 1382816
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/12/2013 10:30 by SM

Submitted: 04/15/2013 09:00
Reported: 04/25/2013 14:24

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

75350 SDG#: PH030-05

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.68	1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.34	1
12969	Anthracene	120-12-7	1.7	U	1.7	0.34	1
12969	Benzo(a)anthracene	56-55-3	1.7	U	1.7	0.68	1
12969	Benzo(a)pyrene	50-32-8	1.7	U	1.7	0.68	1
12969	Benzo(b)fluoranthene	205-99-2	1.2	J	1.7	0.68	1
12969	Benzo(e)pyrene	192-97-2	17	U	17	3.4	1
12969	Benzo(g,h,i)perylene	191-24-2	1.7	U	1.7	0.68	1
12969	Benzo(k)fluoranthene	207-08-9	1.7	U	1.7	0.68	1
12969	Butylbenzylphthalate	85-68-7	18	U	18	6.1	1
12969	Di-n-butylphthalate	84-74-2	18	U	18	6.1	1
12969	Chrysene	218-01-9	1.1	J	1.7	0.34	1
12969	Dibenz(a,h)anthracene	53-70-3	1.7	U	1.7	0.68	1
12969	Diethylphthalate	84-66-2	18	U	18	6.1	1
12969	Dimethylphthalate	131-11-3	18	U	18	6.1	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	6.3	J	18	6.1	1
12969	Fluoranthene	206-44-0	1.1	J	1.7	0.68	1
12969	Fluorene	86-73-7	0.79	J	1.7	0.68	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.7	U	1.7	0.68	1
12969	1-Methylnaphthalene	90-12-0	1.7	U	1.7	0.68	1
12969	2-Methylnaphthalene	91-57-6	1.7	U	1.7	0.68	1
12969	Naphthalene	91-20-3	1.7	U	1.7	0.68	1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.68	1
12969	Di-n-octylphthalate	117-84-0	18	U	18	6.1	1
12969	Phenanthrene	85-01-8	0.76	J	1.7	0.68	1
12969	Pyrene	129-00-0	1.2	J	1.7	0.68	1
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
10592	Aroclor 5432	63496-31-1	33	U	33	10	1
10592	Aroclor 5442	12642-23-8	33	U	33	10	1
10592	Aroclor 5460	11126-42-4	33	U	33	10	1
10592	PCB-1016	12674-11-2	17	U	17	3.3	1
10592	PCB-1221	11104-28-2	17	U	17	5.2	1
10592	PCB-1232	11141-16-5	17	U	17	4.1	1
10592	PCB-1242	53469-21-9	17	U	17	3.3	1
10592	PCB-1248	12672-29-6	17	U	17	3.3	1
10592	PCB-1254	11097-69-1	17	U	17	4.4	1
10592	PCB-1260	11096-82-5	17	U	17	3.9	1
10592	PCB-1262	37324-23-5	17	U	17	3.3	1
10592	PCB-1268	11100-14-4	17	U	17	3.3	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.1	U	5.1	2.1	1
12952	EFH (C15-C20)	n.a.	3.5	J	5.1	2.1	1
12952	EFH (C21-C30)	n.a.	13		5.1	2.1	1
12952	EFH (C30-C40)	n.a.	28		10	4.1	1
12952	EFH (C8-C11)	n.a.	5.1	U	5.1	2.1	1
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	

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

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Analysis Report

Sample Description: SL-535-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7022149
LLI Group # 1382816
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/12/2013 10:30 by SM

Submitted: 04/15/2013 09:00
Reported: 04/25/2013 14:24

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

75350 SDG#: PH030-05

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	11,800		39.9	7.69	1
06944	Antimony	7440-36-0	1.78	J	3.99	0.499	1
06935	Arsenic	7440-38-2	2.11	J	3.99	0.329	1
06946	Barium	7440-39-3	80.6		0.998	0.0329	1
06947	Beryllium	7440-41-7	0.521	J	0.998	0.0669	1
07914	Boron	7440-42-8	3.82	J	9.98	0.828	1
06949	Cadmium	7440-43-9	0.541	J	0.998	0.0329	1
01650	Calcium	7440-70-2	3,510		20.0	4.01	1
06951	Chromium	7440-47-3	17.9		2.99	0.0878	1
06952	Cobalt	7440-48-4	5.40		0.998	0.0898	1
06953	Copper	7440-50-8	6.46		2.00	0.180	1
01654	Iron	7439-89-6	21,600		39.9	3.79	1
06955	Lead	7439-92-1	7.03		2.99	0.469	1
01656	Lithium	7439-93-2	27.7		4.0	0.55	1
01657	Magnesium	7439-95-4	4,660		9.98	1.73	1
06958	Manganese	7439-96-5	299		0.998	0.0828	1
06960	Molybdenum	7439-98-7	0.281	J	2.00	0.170	1
06961	Nickel	7440-02-0	9.04		2.00	0.110	1
10145	Phosphorus	7723-14-0	484		9.98	0.509	1
01662	Potassium	7440-09-7	4,110		99.8	13.5	1
01667	Sodium	7440-23-5	61.6	J	99.8	16.7	1
06969	Tin	7440-31-5	2.69	J	9.98	0.220	1
06970	Titanium	7440-32-6	1,150		0.998	0.170	1
06971	Vanadium	7440-62-2	31.7		0.998	0.110	1
06972	Zinc	7440-66-6	66.5		3.99	0.200	1
10146	Zirconium	7440-67-7	4.99	U	4.99	0.828	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.399	U	0.399	0.0998	2
06142	Silver	7440-22-4	0.200	U	0.200	0.0200	2
06144	Strontium	7440-24-6	15.1		0.399	0.0339	2
06145	Thallium	7440-28-0	0.258		0.200	0.0299	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0151	J	0.0202	0.0104	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045C	n.a.	7.53		0.0100	0.0100	1
	The pH was measured in water at 22.3 C.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	2.7		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

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

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Analysis Report

Sample Description: SL-535-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7022149
LLI Group # 1382816
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/12/2013 10:30 by SM

Submitted: 04/15/2013 09:00
Reported: 04/25/2013 14:24

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

75350 SDG#: PH030-05

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.166	JB	1.02	0.0277	1
11031	12378-PeCDD	40321-76-4	0.576	JQ	5.10	0.0373	1
11031	123478-HxCDD	39227-28-6	0.853	JB	5.10	0.0383	1
11031	123678-HxCDD	57653-85-7	1.87	JB	5.10	0.0392	1
11031	123789-HxCDD	19408-74-3	1.51	J	5.10	0.0366	1
11031	1234678-HpCDD	35822-46-9	33.4	B	5.10	0.0468	1
11031	OCDD	3268-87-9	299	B	10.2	0.0289	1
11031	2378-TCDF	51207-31-9	0.197	JQ	1.02	0.0411	1
11031	12378-PeCDF	57117-41-6	0.421	JB	5.10	0.0209	1
11031	23478-PeCDF	57117-31-4	0.380	JB	5.10	0.0197	1
11031	123478-HxCDF	70648-26-9	0.329	JB	5.10	0.0294	1
11031	123678-HxCDF	57117-44-9	0.323	JBQ	5.10	0.0286	1
11031	123789-HxCDF	72918-21-9	0.215	JBQ	5.10	0.0289	1
11031	234678-HxCDF	60851-34-5	0.359	JB	5.10	0.0286	1
11031	1234678-HpCDF	67562-39-4	3.82	JB	5.10	0.0221	1
11031	1234789-HpCDF	55673-89-7	0.319	JB	5.10	0.0258	1
11031	OCDF	39001-02-0	7.05	JB	10.2	0.0215	1
Toxic Equivalents	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	1.25				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	79	25 - 164
13C12-12378-PeCDD	90	25 - 181
13C12-123478-HxCDD	85	32 - 141
13C12-123678-HxCDD	85	28 - 130
13C12-123789-HxCDD	86	28 - 130
13C12-1234678-HpCDD	88	23 - 140
13C12-OCDD	90	17 - 157
13C12-2378-TCDF	73	24 - 169
13C12-12378-PeCDF	87	24 - 185
13C12-23478-PeCDF	87	21 - 178
13C12-123478-HxCDF	88	26 - 152
13C12-123678-HxCDF	90	26 - 123
13C12-234678-HxCDF	87	28 - 136
13C12-123789-HxCDF	95	29 - 147
13C12-1234678-HpCDF	97	28 - 143
13C12-1234789-HpCDF	88	26 - 138
13C12-OCDF	87	17 - 157

Dioxins/Furans Data Qualifiers:

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

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

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Analysis Report

Sample Description: SL-535-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7022149
LLI Group # 1382816
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/12/2013 10:30 by SM

Submitted: 04/15/2013 09:00
Reported: 04/25/2013 14:24

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

75350 SDG#: PH030-05

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

F *Interference is present*
S *Saturation of detection signal*

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

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Analysis Report

Sample Description: SL-535-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7022149
LLI Group # 1382816
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/12/2013 10:30 by SM

Submitted: 04/15/2013 09:00
Reported: 04/25/2013 14:24

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

75350 SDG#: PH030-05

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13110SLA026	04/25/2013	09:16	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	13110SLA026	04/21/2013	07:00	Joseph S Feister	1
10592	19a PCBs and PCTs 8082A	SW-846 8082A	1	131080019A	04/22/2013	23:09	Monica M Souders	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	131080019A	04/19/2013	09:00	Olivia Arosemena	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	131060013A	04/19/2013	13:20	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	131060013A	04/16/2013	13:00	David S Schrum	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13106003	04/18/2013	07:11	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13106003	04/16/2013	13:00	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010C	1	131070637001	04/21/2013	19:51	Tara L Snyder	1
06944	Antimony	SW-846 6010C	1	131070637001	04/21/2013	19:51	Tara L Snyder	1
06935	Arsenic	SW-846 6010C	1	131070637001	04/21/2013	19:51	Tara L Snyder	1
06946	Barium	SW-846 6010C	1	131070637001	04/21/2013	19:51	Tara L Snyder	1
06947	Beryllium	SW-846 6010C	1	131070637001	04/21/2013	19:51	Tara L Snyder	1
07914	Boron	SW-846 6010C	1	131070637001	04/21/2013	19:51	Tara L Snyder	1
06949	Cadmium	SW-846 6010C	1	131070637001	04/21/2013	19:51	Tara L Snyder	1
01650	Calcium	SW-846 6010C	1	131070637001	04/21/2013	19:51	Tara L Snyder	1
06951	Chromium	SW-846 6010C	1	131070637001	04/21/2013	19:51	Tara L Snyder	1
06952	Cobalt	SW-846 6010C	1	131070637001	04/21/2013	19:51	Tara L Snyder	1
06953	Copper	SW-846 6010C	1	131070637001	04/21/2013	19:51	Tara L Snyder	1
01654	Iron	SW-846 6010C	1	131070637001	04/21/2013	19:51	Tara L Snyder	1
06955	Lead	SW-846 6010C	1	131070637001	04/21/2013	19:51	Tara L Snyder	1
01656	Lithium	SW-846 6010C	1	131070637001	04/21/2013	19:51	Tara L Snyder	1
01657	Magnesium	SW-846 6010C	1	131070637001	04/21/2013	19:51	Tara L Snyder	1
06958	Manganese	SW-846 6010C	1	131070637001	04/21/2013	19:51	Tara L Snyder	1
06960	Molybdenum	SW-846 6010C	1	131070637001	04/21/2013	19:51	Tara L Snyder	1
06961	Nickel	SW-846 6010C	1	131070637001	04/21/2013	19:51	Tara L Snyder	1
10145	Phosphorus	SW-846 6010C	1	131070637001	04/21/2013	19:51	Tara L Snyder	1
01662	Potassium	SW-846 6010C	1	131070637001	04/21/2013	19:51	Tara L Snyder	1
01667	Sodium	SW-846 6010C	1	131070637001	04/21/2013	19:51	Tara L Snyder	1
06969	Tin	SW-846 6010C	1	131070637001	04/21/2013	19:51	Tara L Snyder	1
06970	Titanium	SW-846 6010C	1	131070637001	04/21/2013	19:51	Tara L Snyder	1
06971	Vanadium	SW-846 6010C	1	131070637001	04/21/2013	19:51	Tara L Snyder	1
06972	Zinc	SW-846 6010C	1	131070637001	04/21/2013	19:51	Tara L Snyder	1
10146	Zirconium	SW-846 6010C	1	131070637001	04/21/2013	19:51	Tara L Snyder	1
06141	Selenium	SW-846 6020A	1	131070637001B	04/21/2013	02:06	David K Beck	2
06142	Silver	SW-846 6020A	1	131070637001A	04/21/2013	02:06	David K Beck	2
06144	Strontium	SW-846 6020A	1	131070637001A	04/21/2013	02:06	David K Beck	2
06145	Thallium	SW-846 6020A	1	131070637001A	04/21/2013	02:06	David K Beck	2

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

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Analysis Report

Sample Description: SL-535-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7022149
LLI Group # 1382816
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/12/2013 10:30 by SM

Submitted: 04/15/2013 09:00
Reported: 04/25/2013 14:24

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

75350 SDG#: PH030-05

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00159	3a Mercury 7471A	SW-846 7471B	1	131070638001	04/18/2013 08:09	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	131070637001	04/17/2013 23:35	Annamaria Stipkovits	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	131070638001	04/18/2013 02:45	Annamaria Stipkovits	1
00394	15a pH by 9045C	SW-846 9045D modified	1	13107039401A	04/17/2013 17:30	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13112162401A	04/23/2013 22:37	Scott W Freisher	1

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

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Analysis Report

Sample Description: SL-535-SA7-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7022150
LLI Group # 1382816
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/12/2013 10:57 by SM

Submitted: 04/15/2013 09:00
Reported: 04/25/2013 14:24

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

75354 SDG#: PH030-06

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.69	1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.35	1
12969	Anthracene	120-12-7	1.7	U	1.7	0.35	1
12969	Benzo(a)anthracene	56-55-3	1.7	U	1.7	0.69	1
12969	Benzo(a)pyrene	50-32-8	1.7	U	1.7	0.69	1
12969	Benzo(b)fluoranthene	205-99-2	1.7	U	1.7	0.69	1
12969	Benzo(e)pyrene	192-97-2	18	U	18	3.5	1
12969	Benzo(g,h,i)perylene	191-24-2	1.7	U	1.7	0.69	1
12969	Benzo(k)fluoranthene	207-08-9	1.7	U	1.7	0.69	1
12969	Butylbenzylphthalate	85-68-7	19	U	19	6.2	1
12969	Di-n-butylphthalate	84-74-2	19	U	19	6.2	1
12969	Chrysene	218-01-9	1.7	U	1.7	0.35	1
12969	Dibenz(a,h)anthracene	53-70-3	1.7	U	1.7	0.69	1
12969	Diethylphthalate	84-66-2	19	U	19	6.2	1
12969	Dimethylphthalate	131-11-3	19	U	19	6.2	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	19	U	19	6.2	1
12969	Fluoranthene	206-44-0	1.7	U	1.7	0.69	1
12969	Fluorene	86-73-7	1.7	U	1.7	0.69	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.7	U	1.7	0.69	1
12969	1-Methylnaphthalene	90-12-0	1.7	U	1.7	0.69	1
12969	2-Methylnaphthalene	91-57-6	1.7	U	1.7	0.69	1
12969	Naphthalene	91-20-3	1.7	U	1.7	0.69	1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.69	1
12969	Di-n-octylphthalate	117-84-0	19	U	19	6.2	1
12969	Phenanthrene	85-01-8	1.7	U	1.7	0.69	1
12969	Pyrene	129-00-0	1.7	U	1.7	0.69	1
GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	1.1	U	1.1	0.2	25.72
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
10592	Aroclor 5432	63496-31-1	34	U	34	10	1
10592	Aroclor 5442	12642-23-8	34	U	34	10	1
10592	Aroclor 5460	11126-42-4	34	U	34	10	1
10592	PCB-1016	12674-11-2	17	U	17	3.4	1
10592	PCB-1221	11104-28-2	17	U	17	5.2	1
10592	PCB-1232	11141-16-5	17	U	17	4.2	1
10592	PCB-1242	53469-21-9	17	U	17	3.4	1
10592	PCB-1248	12672-29-6	17	U	17	3.4	1
10592	PCB-1254	11097-69-1	17	U	17	4.5	1
10592	PCB-1260	11096-82-5	17	U	17	4.0	1
10592	PCB-1262	37324-23-5	17	U	17	3.4	1
10592	PCB-1268	11100-14-4	17	U	17	3.4	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.2	U	5.2	2.1	1
12952	EFH (C15-C20)	n.a.	5.2	U	5.2	2.1	1

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

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Analysis Report

Sample Description: SL-535-SA7-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7022150
LLI Group # 1382816
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/12/2013 10:57 by SM

Submitted: 04/15/2013 09:00
Reported: 04/25/2013 14:24

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

75354 SDG#: PH030-06

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C21-C30)	n.a.	5.2	U	5.2	2.1	1
12952	EFH (C30-C40)	n.a.	10	U	10	4.2	1
12952	EFH (C8-C11)	n.a.	5.2	U	5.2	2.1	1
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	15,900		40.5	7.81	1
06944	Antimony	7440-36-0	2.47	J	4.05	0.506	1
06935	Arsenic	7440-38-2	2.17	J	4.05	0.334	1
06946	Barium	7440-39-3	96.9		1.01	0.0334	1
06947	Beryllium	7440-41-7	0.596	J	1.01	0.0678	1
07914	Boron	7440-42-8	2.92	J	10.1	0.840	1
06949	Cadmium	7440-43-9	0.603	J	1.01	0.0334	1
01650	Calcium	7440-70-2	2,360		20.2	4.07	1
06951	Chromium	7440-47-3	22.3		3.04	0.0891	1
06952	Cobalt	7440-48-4	6.49		1.01	0.0911	1
06953	Copper	7440-50-8	9.09		2.02	0.182	1
01654	Iron	7439-89-6	24,000		40.5	3.85	1
06955	Lead	7439-92-1	6.08		3.04	0.476	1
01656	Lithium	7439-93-2	30.3		4.0	0.56	1
01657	Magnesium	7439-95-4	5,420		10.1	1.75	1
06958	Manganese	7439-96-5	346		1.01	0.0840	1
06960	Molybdenum	7439-98-7	0.331	J	2.02	0.172	1
06961	Nickel	7440-02-0	12.9		2.02	0.111	1
10145	Phosphorus	7723-14-0	531		10.1	0.516	1
01662	Potassium	7440-09-7	4,100		101	13.7	1
01667	Sodium	7440-23-5	70.7	J	101	16.9	1
06969	Tin	7440-31-5	2.73	J	10.1	0.223	1
06970	Titanium	7440-32-6	1,300		1.01	0.172	1
06971	Vanadium	7440-62-2	40.8		1.01	0.111	1
06972	Zinc	7440-66-6	63.2		4.05	0.202	1
10146	Zirconium	7440-67-7	1.05	J	5.06	0.840	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.166	J	0.405	0.101	2
06142	Silver	7440-22-4	0.0452	J	0.202	0.0202	2
06144	Strontium	7440-24-6	14.3		0.405	0.0344	2
06145	Thallium	7440-28-0	0.262		0.202	0.0304	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0108	J	0.0201	0.0104	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045C	n.a.	7.40		0.0100	0.0100	1
	The pH was measured in water at 22 C.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	4.1		0.10	0.10	1

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

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Analysis Report

Sample Description: SL-535-SA7-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7022150
LLI Group # 1382816
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/12/2013 10:57 by SM

Submitted: 04/15/2013 09:00
Reported: 04/25/2013 14:24

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

75354 SDG#: PH030-06

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

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

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

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Analysis Report

Sample Description: SL-535-SA7-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7022150
LLI Group # 1382816
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/12/2013 10:57 by SM

Submitted: 04/15/2013 09:00
Reported: 04/25/2013 14:24

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

75354 SDG#: PH030-06

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	1.04	U	1.04	0.0215	1
11031	12378-PeCDD	40321-76-4	0.0750	JQ	5.19	0.0227	1
11031	123478-HxCDD	39227-28-6	0.0713	JB	5.19	0.0228	1
11031	123678-HxCDD	57653-85-7	0.110	JB	5.19	0.0232	1
11031	123789-HxCDD	19408-74-3	0.108	J	5.19	0.0214	1
11031	1234678-HpCDD	35822-46-9	1.55	JB	5.19	0.0229	1
11031	OCDD	3268-87-9	14.6	B	10.4	0.0168	1
11031	2378-TCDF	51207-31-9	0.0363	JQ	1.04	0.0212	1
11031	12378-PeCDF	57117-41-6	0.124	JBQ	5.19	0.0117	1
11031	23478-PeCDF	57117-31-4	0.124	JB	5.19	0.0111	1
11031	123478-HxCDF	70648-26-9	0.0686	JB	5.19	0.0148	1
11031	123678-HxCDF	57117-44-9	0.0431	JB	5.19	0.0142	1
11031	123789-HxCDF	72918-21-9	0.110	JBQ	5.19	0.0145	1
11031	234678-HxCDF	60851-34-5	0.0628	JB	5.19	0.0137	1
11031	1234678-HpCDF	67562-39-4	0.220	JB	5.19	0.00945	1
11031	1234789-HpCDF	55673-89-7	0.0491	JBQ	5.19	0.0125	1
11031	OCDF	39001-02-0	0.470	JB	10.4	0.0214	1
Toxic Equivalents	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.106				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	66	25 - 164
13C12-12378-PeCDD	78	25 - 181
13C12-123478-HxCDD	78	32 - 141
13C12-123678-HxCDD	80	28 - 130
13C12-123789-HxCDD	85	28 - 130
13C12-1234678-HpCDD	81	23 - 140
13C12-OCDD	83	17 - 157
13C12-2378-TCDF	63	24 - 169
13C12-12378-PeCDF	76	24 - 185
13C12-23478-PeCDF	77	21 - 178
13C12-123478-HxCDF	81	26 - 152
13C12-123678-HxCDF	82	26 - 123
13C12-234678-HxCDF	82	28 - 136
13C12-123789-HxCDF	87	29 - 147
13C12-1234678-HpCDF	95	28 - 143
13C12-1234789-HpCDF	82	26 - 138
13C12-OCDF	81	17 - 157

Dioxins/Furans Data Qualifiers:

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

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

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Analysis Report

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Sample Description: SL-535-SA7-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7022150
LLI Group # 1382816
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/12/2013 10:57 by SM

Submitted: 04/15/2013 09:00
Reported: 04/25/2013 14:24

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

75354 SDG#: PH030-06

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

F *Interference is present*
S *Saturation of detection signal*

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

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Analysis Report

Sample Description: SL-535-SA7-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7022150
LLI Group # 1382816
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/12/2013 10:57 by SM

Submitted: 04/15/2013 09:00
Reported: 04/25/2013 14:24

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

75354 SDG#: PH030-06

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13110SLA026	04/25/2013	09:45	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	13110SLA026	04/21/2013	07:00	Joseph S Feister	1
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	13106A16A	04/16/2013	18:50	Laura M Krieger	25.72
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201310530763	04/15/2013	11:05	Larry E Bevins	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201310530763	04/15/2013	11:05	Larry E Bevins	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	3	201310530763	04/15/2013	11:06	Larry E Bevins	n.a.
10592	19a PCBs and PCTs 8082A	SW-846 8082A	1	131080019A	04/22/2013	23:27	Monica M Souders	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	131080019A	04/19/2013	09:00	Olivia Arosemena	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	131060013A	04/19/2013	09:53	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	131060013A	04/16/2013	13:00	David S Schrum	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13106003	04/18/2013	08:08	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13106003	04/16/2013	13:00	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010C	1	131070637001	04/21/2013	19:55	Tara L Snyder	1
06944	Antimony	SW-846 6010C	1	131070637001	04/21/2013	19:55	Tara L Snyder	1
06935	Arsenic	SW-846 6010C	1	131070637001	04/21/2013	19:55	Tara L Snyder	1
06946	Barium	SW-846 6010C	1	131070637001	04/21/2013	19:55	Tara L Snyder	1
06947	Beryllium	SW-846 6010C	1	131070637001	04/21/2013	19:55	Tara L Snyder	1
07914	Boron	SW-846 6010C	1	131070637001	04/21/2013	19:55	Tara L Snyder	1
06949	Cadmium	SW-846 6010C	1	131070637001	04/21/2013	19:55	Tara L Snyder	1
01650	Calcium	SW-846 6010C	1	131070637001	04/21/2013	19:55	Tara L Snyder	1
06951	Chromium	SW-846 6010C	1	131070637001	04/21/2013	19:55	Tara L Snyder	1
06952	Cobalt	SW-846 6010C	1	131070637001	04/21/2013	19:55	Tara L Snyder	1
06953	Copper	SW-846 6010C	1	131070637001	04/21/2013	19:55	Tara L Snyder	1
01654	Iron	SW-846 6010C	1	131070637001	04/21/2013	19:55	Tara L Snyder	1
06955	Lead	SW-846 6010C	1	131070637001	04/21/2013	19:55	Tara L Snyder	1
01656	Lithium	SW-846 6010C	1	131070637001	04/21/2013	19:55	Tara L Snyder	1
01657	Magnesium	SW-846 6010C	1	131070637001	04/21/2013	19:55	Tara L Snyder	1
06958	Manganese	SW-846 6010C	1	131070637001	04/21/2013	19:55	Tara L Snyder	1
06960	Molybdenum	SW-846 6010C	1	131070637001	04/21/2013	19:55	Tara L Snyder	1
06961	Nickel	SW-846 6010C	1	131070637001	04/21/2013	19:55	Tara L Snyder	1
10145	Phosphorus	SW-846 6010C	1	131070637001	04/21/2013	19:55	Tara L Snyder	1
01662	Potassium	SW-846 6010C	1	131070637001	04/21/2013	19:55	Tara L Snyder	1
01667	Sodium	SW-846 6010C	1	131070637001	04/21/2013	19:55	Tara L Snyder	1
06969	Tin	SW-846 6010C	1	131070637001	04/21/2013	19:55	Tara L Snyder	1
06970	Titanium	SW-846 6010C	1	131070637001	04/21/2013	19:55	Tara L Snyder	1
06971	Vanadium	SW-846 6010C	1	131070637001	04/21/2013	19:55	Tara L Snyder	1
06972	Zinc	SW-846 6010C	1	131070637001	04/21/2013	19:55	Tara L Snyder	1

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

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Analysis Report

Sample Description: SL-535-SA7-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7022150
LLI Group # 1382816
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/12/2013 10:57 by SM

Submitted: 04/15/2013 09:00
Reported: 04/25/2013 14:24

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

75354 SDG#: PH030-06

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10146	Zirconium	SW-846 6010C	1	131070637001	04/21/2013 19:55	Tara L Snyder	1
06141	Selenium	SW-846 6020A	1	131070637001B	04/21/2013 02:08	David K Beck	2
06142	Silver	SW-846 6020A	1	131070637001A	04/21/2013 02:08	David K Beck	2
06144	Strontium	SW-846 6020A	1	131070637001A	04/21/2013 02:08	David K Beck	2
06145	Thallium	SW-846 6020A	1	131070637001A	04/21/2013 02:08	David K Beck	2
00159	3a Mercury 7471A	SW-846 7471B	1	131070638001	04/18/2013 08:15	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	131070637001	04/17/2013 23:35	Annamaria Stipkovits	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	131070638001	04/18/2013 02:45	Annamaria Stipkovits	1
00394	15a pH by 9045C	SW-846 9045D modified	1	13107039401A	04/17/2013 17:30	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13112162401A	04/23/2013 22:37	Scott W Freisher	1

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

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Analysis Report

Sample Description: SL-535-SA7-SB-9.0-10.0 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7022151
LLI Group # 1382816
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/12/2013 11:30 by SM

Submitted: 04/15/2013 09:00
Reported: 04/25/2013 14:24

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

75359 SDG#: PH030-07

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.70	1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.35	1
12969	Anthracene	120-12-7	1.7	U	1.7	0.35	1
12969	Benzo(a)anthracene	56-55-3	1.7	U	1.7	0.70	1
12969	Benzo(a)pyrene	50-32-8	1.7	U	1.7	0.70	1
12969	Benzo(b)fluoranthene	205-99-2	1.7	U	1.7	0.70	1
12969	Benzo(e)pyrene	192-97-2	18	U	18	3.5	1
12969	Benzo(g,h,i)perylene	191-24-2	1.7	U	1.7	0.70	1
12969	Benzo(k)fluoranthene	207-08-9	1.7	U	1.7	0.70	1
12969	Butylbenzylphthalate	85-68-7	19	U	19	6.3	1
12969	Di-n-butylphthalate	84-74-2	19	U	19	6.3	1
12969	Chrysene	218-01-9	1.7	U	1.7	0.35	1
12969	Dibenz(a,h)anthracene	53-70-3	1.7	U	1.7	0.70	1
12969	Diethylphthalate	84-66-2	19	U	19	6.3	1
12969	Dimethylphthalate	131-11-3	19	U	19	6.3	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	19	U	19	6.3	1
12969	Fluoranthene	206-44-0	1.7	U	1.7	0.70	1
12969	Fluorene	86-73-7	1.7	U	1.7	0.70	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.7	U	1.7	0.70	1
12969	1-Methylnaphthalene	90-12-0	1.7	U	1.7	0.70	1
12969	2-Methylnaphthalene	91-57-6	1.7	U	1.7	0.70	1
12969	Naphthalene	91-20-3	1.7	U	1.7	0.70	1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.70	1
12969	Di-n-octylphthalate	117-84-0	19	U	19	6.3	1
12969	Phenanthrene	85-01-8	1.7	U	1.7	0.70	1
12969	Pyrene	129-00-0	1.7	U	1.7	0.70	1
GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	1.1	U	1.1	0.2	25.25
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
10592	Aroclor 5432	63496-31-1	34	U	34	10	1
10592	Aroclor 5442	12642-23-8	34	U	34	10	1
10592	Aroclor 5460	11126-42-4	34	U	34	10	1
10592	PCB-1016	12674-11-2	17	U	17	3.4	1
10592	PCB-1221	11104-28-2	17	U	17	5.2	1
10592	PCB-1232	11141-16-5	17	U	17	4.2	1
10592	PCB-1242	53469-21-9	17	U	17	3.4	1
10592	PCB-1248	12672-29-6	17	U	17	3.4	1
10592	PCB-1254	11097-69-1	17	U	17	4.5	1
10592	PCB-1260	11096-82-5	17	U	17	4.0	1
10592	PCB-1262	37324-23-5	17	U	17	3.4	1
10592	PCB-1268	11100-14-4	17	U	17	3.4	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.2	U	5.2	2.1	1
12952	EFH (C15-C20)	n.a.	5.2	U	5.2	2.1	1

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

Sample Description: SL-535-SA7-SB-9.0-10.0 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7022151
LLI Group # 1382816
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/12/2013 11:30 by SM

Submitted: 04/15/2013 09:00
Reported: 04/25/2013 14:24

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

75359 SDG#: PH030-07

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C21-C30)	n.a.	5.2	U	5.2	2.1	1
12952	EFH (C30-C40)	n.a.	10	U	10	4.2	1
12952	EFH (C8-C11)	n.a.	5.2	U	5.2	2.1	1
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	13,400		40.6	7.83	1
06944	Antimony	7440-36-0	2.10	J	4.06	0.508	1
06935	Arsenic	7440-38-2	2.20	J	4.06	0.335	1
06946	Barium	7440-39-3	82.8		1.02	0.0335	1
06947	Beryllium	7440-41-7	0.546	J	1.02	0.0680	1
07914	Boron	7440-42-8	2.37	J	10.2	0.843	1
06949	Cadmium	7440-43-9	0.511	J	1.02	0.0335	1
01650	Calcium	7440-70-2	2,890		20.3	4.08	1
06951	Chromium	7440-47-3	27.8		3.05	0.0894	1
06952	Cobalt	7440-48-4	6.43		1.02	0.0914	1
06953	Copper	7440-50-8	6.96		2.03	0.183	1
01654	Iron	7439-89-6	22,500		40.6	3.86	1
06955	Lead	7439-92-1	6.56		3.05	0.477	1
01656	Lithium	7439-93-2	25.9		4.1	0.56	1
01657	Magnesium	7439-95-4	5,060		10.2	1.76	1
06958	Manganese	7439-96-5	347		1.02	0.0843	1
06960	Molybdenum	7439-98-7	0.486	J	2.03	0.173	1
06961	Nickel	7440-02-0	11.6		2.03	0.112	1
10145	Phosphorus	7723-14-0	470		10.2	0.518	1
01662	Potassium	7440-09-7	3,650		102	13.7	1
01667	Sodium	7440-23-5	71.3	J	102	17.0	1
06969	Tin	7440-31-5	2.86	J	10.2	0.223	1
06970	Titanium	7440-32-6	1,210		1.02	0.173	1
06971	Vanadium	7440-62-2	37.0		1.02	0.112	1
06972	Zinc	7440-66-6	60.5		4.06	0.203	1
10146	Zirconium	7440-67-7	5.08	U	5.08	0.843	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.119	J	0.406	0.102	2
06142	Silver	7440-22-4	0.0260	J	0.203	0.0203	2
06144	Strontium	7440-24-6	15.0		0.406	0.0345	2
06145	Thallium	7440-28-0	0.273		0.203	0.0305	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0149	J	0.0208	0.0108	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045C	n.a.	7.45		0.0100	0.0100	1
	The pH was measured in water at 22.2 C.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	4.4		0.10	0.10	1

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

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Analysis Report

Sample Description: SL-535-SA7-SB-9.0-10.0 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7022151
LLI Group # 1382816
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/12/2013 11:30 by SM

Submitted: 04/15/2013 09:00
Reported: 04/25/2013 14:24

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

75359 SDG#: PH030-07

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

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

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

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Analysis Report

Sample Description: SL-535-SA7-SB-9.0-10.0 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7022151
LLI Group # 1382816
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/12/2013 11:30 by SM

Submitted: 04/15/2013 09:00
Reported: 04/25/2013 14:24

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

75359 SDG#: PH030-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		**ng/kg**	**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	0.0291 JBQ	1.04	0.0235	1
11031	12378-PeCDD	40321-76-4	0.0562 JQ	5.18	0.0229	1
11031	123478-HxCDD	39227-28-6	0.0280 JBQ	5.18	0.0171	1
11031	123678-HxCDD	57653-85-7	0.0413 JBQ	5.18	0.0177	1
11031	123789-HxCDD	19408-74-3	5.18 U	5.18	0.0168	1
11031	1234678-HpCDD	35822-46-9	0.256 JB	5.18	0.0200	1
11031	OCDD	3268-87-9	1.74 JB	10.4	0.0185	1
11031	2378-TCDF	51207-31-9	1.04 U	1.04	0.0198	1
11031	12378-PeCDF	57117-41-6	0.0848 JBQ	5.18	0.0107	1
11031	23478-PeCDF	57117-31-4	0.0548 JB	5.18	0.00993	1
11031	123478-HxCDF	70648-26-9	0.0419 JBQ	5.18	0.00984	1
11031	123678-HxCDF	57117-44-9	0.0241 JBQ	5.18	0.00914	1
11031	123789-HxCDF	72918-21-9	0.0462 JBQ	5.18	0.0102	1
11031	234678-HxCDF	60851-34-5	0.0231 JBQ	5.18	0.00947	1
11031	1234678-HpCDF	67562-39-4	0.0660 JBQ	5.18	0.00688	1
11031	1234789-HpCDF	55673-89-7	0.0401 JBQ	5.18	0.0101	1
11031	OCDF	39001-02-0	0.121 JBQ	10.4	0.0196	1
Toxic Equivalents	**EPA 1613B**		**ng/kg**	**ng/kg**	**ng/kg**	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.0195			1

Labeled Compounds	**%Rec**	**Windows**
13C12-2378-TCDD	68	25 - 164
13C12-12378-PeCDD	78	25 - 181
13C12-123478-HxCDD	77	32 - 141
13C12-123678-HxCDD	76	28 - 130
13C12-123789-HxCDD	77	28 - 130
13C12-1234678-HpCDD	76	23 - 140
13C12-OCDD	77	17 - 157
13C12-2378-TCDF	64	24 - 169
13C12-12378-PeCDF	77	24 - 185
13C12-23478-PeCDF	78	21 - 178
13C12-123478-HxCDF	78	26 - 152
13C12-123678-HxCDF	81	26 - 123
13C12-234678-HxCDF	78	28 - 136
13C12-123789-HxCDF	79	29 - 147
13C12-1234678-HpCDF	91	28 - 143
13C12-1234789-HpCDF	74	26 - 138
13C12-OCDF	71	17 - 157

Dioxins/Furans Data Qualifiers:

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

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

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Analysis Report

Sample Description: SL-535-SA7-SB-9.0-10.0 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7022151
LLI Group # 1382816
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/12/2013 11:30 by SM

Submitted: 04/15/2013 09:00
Reported: 04/25/2013 14:24

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

75359 SDG#: PH030-07

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

F *Interference is present*
S *Saturation of detection signal*

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

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Analysis Report

Sample Description: SL-535-SA7-SB-9.0-10.0 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7022151
LLI Group # 1382816
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/12/2013 11:30 by SM

Submitted: 04/15/2013 09:00
Reported: 04/25/2013 14:24

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

75359 SDG#: PH030-07

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13110SLA026	04/25/2013	10:14	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	13110SLA026	04/21/2013	07:00	Joseph S Feister	1
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	13106A16A	04/16/2013	19:28	Laura M Krieger	25.25
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201310530763	04/15/2013	11:07	Larry E Bevins	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201310530763	04/15/2013	11:07	Larry E Bevins	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	3	201310530763	04/15/2013	11:08	Larry E Bevins	n.a.
10592	19a PCBs and PCTs 8082A	SW-846 8082A	1	131080019A	04/22/2013	23:45	Monica M Souders	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	131080019A	04/19/2013	09:00	Olivia Arosemena	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	131060013A	04/19/2013	10:13	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	131060013A	04/16/2013	13:00	David S Schrum	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13106003	04/18/2013	09:04	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13106003	04/16/2013	13:00	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010C	1	131070637001	04/21/2013	19:59	Tara L Snyder	1
06944	Antimony	SW-846 6010C	1	131070637001	04/21/2013	19:59	Tara L Snyder	1
06935	Arsenic	SW-846 6010C	1	131070637001	04/21/2013	19:59	Tara L Snyder	1
06946	Barium	SW-846 6010C	1	131070637001	04/21/2013	19:59	Tara L Snyder	1
06947	Beryllium	SW-846 6010C	1	131070637001	04/21/2013	19:59	Tara L Snyder	1
07914	Boron	SW-846 6010C	1	131070637001	04/21/2013	19:59	Tara L Snyder	1
06949	Cadmium	SW-846 6010C	1	131070637001	04/21/2013	19:59	Tara L Snyder	1
01650	Calcium	SW-846 6010C	1	131070637001	04/21/2013	19:59	Tara L Snyder	1
06951	Chromium	SW-846 6010C	1	131070637001	04/21/2013	19:59	Tara L Snyder	1
06952	Cobalt	SW-846 6010C	1	131070637001	04/21/2013	19:59	Tara L Snyder	1
06953	Copper	SW-846 6010C	1	131070637001	04/21/2013	19:59	Tara L Snyder	1
01654	Iron	SW-846 6010C	1	131070637001	04/21/2013	19:59	Tara L Snyder	1
06955	Lead	SW-846 6010C	1	131070637001	04/21/2013	19:59	Tara L Snyder	1
01656	Lithium	SW-846 6010C	1	131070637001	04/21/2013	19:59	Tara L Snyder	1
01657	Magnesium	SW-846 6010C	1	131070637001	04/21/2013	19:59	Tara L Snyder	1
06958	Manganese	SW-846 6010C	1	131070637001	04/21/2013	19:59	Tara L Snyder	1
06960	Molybdenum	SW-846 6010C	1	131070637001	04/21/2013	19:59	Tara L Snyder	1
06961	Nickel	SW-846 6010C	1	131070637001	04/21/2013	19:59	Tara L Snyder	1
10145	Phosphorus	SW-846 6010C	1	131070637001	04/21/2013	19:59	Tara L Snyder	1
01662	Potassium	SW-846 6010C	1	131070637001	04/21/2013	19:59	Tara L Snyder	1
01667	Sodium	SW-846 6010C	1	131070637001	04/21/2013	19:59	Tara L Snyder	1
06969	Tin	SW-846 6010C	1	131070637001	04/21/2013	19:59	Tara L Snyder	1
06970	Titanium	SW-846 6010C	1	131070637001	04/21/2013	19:59	Tara L Snyder	1
06971	Vanadium	SW-846 6010C	1	131070637001	04/21/2013	19:59	Tara L Snyder	1
06972	Zinc	SW-846 6010C	1	131070637001	04/21/2013	19:59	Tara L Snyder	1

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

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Analysis Report

Sample Description: SL-535-SA7-SB-9.0-10.0 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7022151
LLI Group # 1382816
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/12/2013 11:30 by SM

Submitted: 04/15/2013 09:00
Reported: 04/25/2013 14:24

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

75359 SDG#: PH030-07

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10146	Zirconium	SW-846 6010C	1	131070637001	04/21/2013 19:59	Tara L Snyder	1
06141	Selenium	SW-846 6020A	1	131070637001B	04/21/2013 02:10	David K Beck	2
06142	Silver	SW-846 6020A	1	131070637001A	04/21/2013 02:10	David K Beck	2
06144	Strontium	SW-846 6020A	1	131070637001A	04/21/2013 02:10	David K Beck	2
06145	Thallium	SW-846 6020A	1	131070637001A	04/21/2013 02:10	David K Beck	2
00159	3a Mercury 7471A	SW-846 7471B	1	131070638001	04/18/2013 08:17	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	131070637001	04/17/2013 23:35	Annamaria Stipkovits	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	131070638001	04/18/2013 02:45	Annamaria Stipkovits	1
00394	15a pH by 9045C	SW-846 9045D modified	1	13107039401A	04/17/2013 17:30	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13112162401A	04/23/2013 22:37	Scott W Freisher	1

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

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Analysis Report

Sample Description: SL-534-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7022152
LLI Group # 1382816
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/12/2013 14:30 by SM

Submitted: 04/15/2013 09:00
Reported: 04/25/2013 14:24

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

75340 SDG#: PH030-08*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.69	1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.34	1
12969	Anthracene	120-12-7	1.7	U	1.7	0.34	1
12969	Benzo(a)anthracene	56-55-3	1.7	U	1.7	0.69	1
12969	Benzo(a)pyrene	50-32-8	0.91	J	1.7	0.69	1
12969	Benzo(b)fluoranthene	205-99-2	1.4	J	1.7	0.69	1
12969	Benzo(e)pyrene	192-97-2	18	U	18	3.4	1
12969	Benzo(g,h,i)perylene	191-24-2	1.7	U	1.7	0.69	1
12969	Benzo(k)fluoranthene	207-08-9	1.7	U	1.7	0.69	1
12969	Butylbenzylphthalate	85-68-7	19	U	19	6.2	1
12969	Di-n-butylphthalate	84-74-2	19	U	19	6.2	1
12969	Chrysene	218-01-9	1.5	J	1.7	0.34	1
12969	Dibenz(a,h)anthracene	53-70-3	1.7	U	1.7	0.69	1
12969	Diethylphthalate	84-66-2	19	U	19	6.2	1
12969	Dimethylphthalate	131-11-3	19	U	19	6.2	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	9.3	J	19	6.2	1
12969	Fluoranthene	206-44-0	1.8		1.7	0.69	1
12969	Fluorene	86-73-7	1.4	J	1.7	0.69	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.7	U	1.7	0.69	1
12969	1-Methylnaphthalene	90-12-0	1.7	U	1.7	0.69	1
12969	2-Methylnaphthalene	91-57-6	1.7	U	1.7	0.69	1
12969	Naphthalene	91-20-3	0.83	J	1.7	0.69	1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.69	1
12969	Di-n-octylphthalate	117-84-0	19	U	19	6.2	1
12969	Phenanthrene	85-01-8	1.1	J	1.7	0.69	1
12969	Pyrene	129-00-0	1.7	J	1.7	0.69	1
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
10592	Aroclor 5432	63496-31-1	34	U	34	10	1
10592	Aroclor 5442	12642-23-8	34	U	34	10	1
10592	Aroclor 5460	11126-42-4	34	U	34	10	1
10592	PCB-1016	12674-11-2	17	U	17	3.4	1
10592	PCB-1221	11104-28-2	17	U	17	5.2	1
10592	PCB-1232	11141-16-5	17	U	17	4.2	1
10592	PCB-1242	53469-21-9	17	U	17	3.4	1
10592	PCB-1248	12672-29-6	17	U	17	3.4	1
10592	PCB-1254	11097-69-1	17	U	17	4.5	1
10592	PCB-1260	11096-82-5	17	U	17	4.0	1
10592	PCB-1262	37324-23-5	17	U	17	3.4	1
10592	PCB-1268	11100-14-4	17	U	17	3.4	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.2	U	5.2	2.1	1
12952	EFH (C15-C20)	n.a.	3.6	J	5.2	2.1	1
12952	EFH (C21-C30)	n.a.	13		5.2	2.1	1
12952	EFH (C30-C40)	n.a.	32		10	4.2	1
12952	EFH (C8-C11)	n.a.	5.2	U	5.2	2.1	1
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	

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

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Analysis Report

Sample Description: SL-534-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7022152
LLI Group # 1382816
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/12/2013 14:30 by SM

Submitted: 04/15/2013 09:00
Reported: 04/25/2013 14:24

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

75340 SDG#: PH030-08*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	15,300		41.5	8.01	1
06944	Antimony	7440-36-0	1.96	J	4.15	0.519	1
06935	Arsenic	7440-38-2	2.83	J	4.15	0.343	1
06946	Barium	7440-39-3	90.9		1.04	0.0343	1
06947	Beryllium	7440-41-7	0.592	J	1.04	0.0696	1
07914	Boron	7440-42-8	4.80	J	10.4	0.862	1
06949	Cadmium	7440-43-9	0.533	J	1.04	0.0343	1
01650	Calcium	7440-70-2	3,600		20.8	4.17	1
06951	Chromium	7440-47-3	20.7		3.12	0.0914	1
06952	Cobalt	7440-48-4	6.36		1.04	0.0935	1
06953	Copper	7440-50-8	8.38		2.08	0.187	1
01654	Iron	7439-89-6	22,800		41.5	3.95	1
06955	Lead	7439-92-1	6.81		3.12	0.488	1
01656	Lithium	7439-93-2	27.8		4.2	0.57	1
01657	Magnesium	7439-95-4	5,130		10.4	1.80	1
06958	Manganese	7439-96-5	323		1.04	0.0862	1
06960	Molybdenum	7439-98-7	0.335	J	2.08	0.177	1
06961	Nickel	7440-02-0	11.8		2.08	0.114	1
10145	Phosphorus	7723-14-0	532		10.4	0.530	1
01662	Potassium	7440-09-7	4,390		104	14.0	1
01667	Sodium	7440-23-5	60.8	J	104	17.3	1
06969	Tin	7440-31-5	2.76	J	10.4	0.228	1
06970	Titanium	7440-32-6	1,230		1.04	0.177	1
06971	Vanadium	7440-62-2	39.4		1.04	0.114	1
06972	Zinc	7440-66-6	59.4		4.15	0.208	1
10146	Zirconium	7440-67-7	1.13	J	5.19	0.862	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.415	U	0.415	0.104	2
06142	Silver	7440-22-4	0.0407	J	0.208	0.0208	2
06144	Strontium	7440-24-6	17.7		0.415	0.0353	2
06145	Thallium	7440-28-0	0.272		0.208	0.0312	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0188	J	0.0207	0.0107	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045C	n.a.	7.58		0.0100	0.0100	1
	The pH was measured in water at 22.1 C.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	3.7		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

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

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Analysis Report

Sample Description: SL-534-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7022152
LLI Group # 1382816
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/12/2013 14:30 by SM

Submitted: 04/15/2013 09:00
Reported: 04/25/2013 14:24

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

75340 SDG#: PH030-08*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0346 JBQ	1.03	0.0296	1
11031	12378-PeCDD	40321-76-4	0.344 J	5.15	0.0346	1
11031	123478-HxCDD	39227-28-6	0.336 JB	5.15	0.0407	1
11031	123678-HxCDD	57653-85-7	0.701 JB	5.15	0.0411	1
11031	123789-HxCDD	19408-74-3	0.976 J	5.15	0.0392	1
11031	1234678-HpCDD	35822-46-9	15.0 B	5.15	0.0392	1
11031	OCDD	3268-87-9	198 B	10.3	0.0309	1
11031	2378-TCDF	51207-31-9	0.0508 JQ	1.03	0.0409	1
11031	12378-PeCDF	57117-41-6	0.118 JBQ	5.15	0.0188	1
11031	23478-PeCDF	57117-31-4	0.156 JBQ	5.15	0.0173	1
11031	123478-HxCDF	70648-26-9	0.253 JB	5.15	0.0291	1
11031	123678-HxCDF	57117-44-9	0.204 JBQ	5.15	0.0278	1
11031	123789-HxCDF	72918-21-9	0.166 JBQ	5.15	0.0303	1
11031	234678-HxCDF	60851-34-5	0.349 JBQ	5.15	0.0275	1
11031	1234678-HpCDF	67562-39-4	2.74 JB	5.15	0.0189	1
11031	1234789-HpCDF	55673-89-7	0.289 JB	5.15	0.0248	1
11031	OCDF	39001-02-0	5.52 JB	10.3	0.0250	1
Toxic Equivalents	**EPA 1613B**		ng/kg	ng/kg	ng/kg	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.812			1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	76	25 - 164
13C12-12378-PeCDD	84	25 - 181
13C12-123478-HxCDD	85	32 - 141
13C12-123678-HxCDD	86	28 - 130
13C12-123789-HxCDD	86	28 - 130
13C12-1234678-HpCDD	89	23 - 140
13C12-OCDD	89	17 - 157
13C12-2378-TCDF	72	24 - 169
13C12-12378-PeCDF	85	24 - 185
13C12-23478-PeCDF	84	21 - 178
13C12-123478-HxCDF	87	26 - 152
13C12-123678-HxCDF	90	26 - 123
13C12-234678-HxCDF	88	28 - 136
13C12-123789-HxCDF	90	29 - 147
13C12-1234678-HpCDF	104	28 - 143
13C12-1234789-HpCDF	85	26 - 138
13C12-OCDF	85	17 - 157

Dioxins/Furans Data Qualifiers:

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

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

Sample Description: SL-534-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7022152
LLI Group # 1382816
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/12/2013 14:30 by SM

Submitted: 04/15/2013 09:00
Reported: 04/25/2013 14:24

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

75340 SDG#: PH030-08*

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

F *Interference is present*
S *Saturation of detection signal*

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

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Analysis Report

Sample Description: SL-534-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7022152
LLI Group # 1382816
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/12/2013 14:30 by SM

Submitted: 04/15/2013 09:00
Reported: 04/25/2013 14:24

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

75340 SDG#: PH030-08*

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13110SLA026	04/25/2013	10:43	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	13110SLA026	04/21/2013	07:00	Joseph S Feister	1
10592	19a PCBs and PCTs 8082A	SW-846 8082A	1	131080019A	04/23/2013	00:04	Monica M Souders	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	131080019A	04/19/2013	09:00	Olivia Arosemena	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	131060013A	04/19/2013	14:01	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	131060013A	04/16/2013	13:00	David S Schrum	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13106003	04/18/2013	10:01	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13106003	04/16/2013	13:00	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010C	1	131070637001	04/21/2013	20:02	Tara L Snyder	1
06944	Antimony	SW-846 6010C	1	131070637001	04/21/2013	20:02	Tara L Snyder	1
06935	Arsenic	SW-846 6010C	1	131070637001	04/21/2013	20:02	Tara L Snyder	1
06946	Barium	SW-846 6010C	1	131070637001	04/21/2013	20:02	Tara L Snyder	1
06947	Beryllium	SW-846 6010C	1	131070637001	04/21/2013	20:02	Tara L Snyder	1
07914	Boron	SW-846 6010C	1	131070637001	04/21/2013	20:02	Tara L Snyder	1
06949	Cadmium	SW-846 6010C	1	131070637001	04/21/2013	20:02	Tara L Snyder	1
01650	Calcium	SW-846 6010C	1	131070637001	04/21/2013	20:02	Tara L Snyder	1
06951	Chromium	SW-846 6010C	1	131070637001	04/21/2013	20:02	Tara L Snyder	1
06952	Cobalt	SW-846 6010C	1	131070637001	04/21/2013	20:02	Tara L Snyder	1
06953	Copper	SW-846 6010C	1	131070637001	04/21/2013	20:02	Tara L Snyder	1
01654	Iron	SW-846 6010C	1	131070637001	04/21/2013	20:02	Tara L Snyder	1
06955	Lead	SW-846 6010C	1	131070637001	04/21/2013	20:02	Tara L Snyder	1
01656	Lithium	SW-846 6010C	1	131070637001	04/21/2013	20:02	Tara L Snyder	1
01657	Magnesium	SW-846 6010C	1	131070637001	04/21/2013	20:02	Tara L Snyder	1
06958	Manganese	SW-846 6010C	1	131070637001	04/21/2013	20:02	Tara L Snyder	1
06960	Molybdenum	SW-846 6010C	1	131070637001	04/21/2013	20:02	Tara L Snyder	1
06961	Nickel	SW-846 6010C	1	131070637001	04/21/2013	20:02	Tara L Snyder	1
10145	Phosphorus	SW-846 6010C	1	131070637001	04/21/2013	20:02	Tara L Snyder	1
01662	Potassium	SW-846 6010C	1	131070637001	04/21/2013	20:02	Tara L Snyder	1
01667	Sodium	SW-846 6010C	1	131070637001	04/21/2013	20:02	Tara L Snyder	1
06969	Tin	SW-846 6010C	1	131070637001	04/21/2013	20:02	Tara L Snyder	1
06970	Titanium	SW-846 6010C	1	131070637001	04/21/2013	20:02	Tara L Snyder	1
06971	Vanadium	SW-846 6010C	1	131070637001	04/21/2013	20:02	Tara L Snyder	1
06972	Zinc	SW-846 6010C	1	131070637001	04/21/2013	20:02	Tara L Snyder	1
10146	Zirconium	SW-846 6010C	1	131070637001	04/21/2013	20:02	Tara L Snyder	1
06141	Selenium	SW-846 6020A	1	131070637001B	04/21/2013	02:13	David K Beck	2
06142	Silver	SW-846 6020A	1	131070637001A	04/21/2013	02:13	David K Beck	2
06144	Strontium	SW-846 6020A	1	131070637001A	04/21/2013	02:13	David K Beck	2
06145	Thallium	SW-846 6020A	1	131070637001A	04/21/2013	02:13	David K Beck	2

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

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Analysis Report

Sample Description: SL-534-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7022152
LLI Group # 1382816
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/12/2013 14:30 by SM

Submitted: 04/15/2013 09:00
Reported: 04/25/2013 14:24

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

75340 SDG#: PH030-08*

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00159	3a Mercury 7471A	SW-846 7471B	1	131070638001	04/18/2013 08:19	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	131070637001	04/17/2013 23:35	Annamaria Stipkovits	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	131070638001	04/18/2013 02:45	Annamaria Stipkovits	1
00394	15a pH by 9045C	SW-846 9045D modified	1	13107039401A	04/17/2013 17:30	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13112162401A	04/23/2013 22:37	Scott W Freisher	1

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

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1382816
Reported: 04/25/13 at 02:24 PM

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 13110SLA026	Sample number(s): 7022144-7022146,7022148-7022152									
Acenaphthene	1.7	U	1.7	0.67	ug/kg	90		69-114		
Acenaphthylene	1.7	U	1.7	0.33	ug/kg	97		71-113		
Anthracene	1.7	U	1.7	0.33	ug/kg	104		75-116		
Benzo(a)anthracene	1.7	U	1.7	0.67	ug/kg	103		76-115		
Benzo(a)pyrene	1.7	U	1.7	0.67	ug/kg	94		76-117		
Benzo(b)fluoranthene	1.7	U	1.7	0.67	ug/kg	103		77-129		
Benzo(e)pyrene	17	U	17.	3.3	ug/kg	85		70-130		
Benzo(g,h,i)perylene	1.7	U	1.7	0.67	ug/kg	98		64-120		
Benzo(k)fluoranthene	1.7	U	1.7	0.67	ug/kg	92		71-120		
Butylbenzylphthalate	18	U	18.	6.0	ug/kg	95		65-131		
Di-n-butylphthalate	18	U	18.	6.0	ug/kg	90		67-140		
Chrysene	1.7	U	1.7	0.33	ug/kg	102		78-111		
Dibenz(a,h)anthracene	1.7	U	1.7	0.67	ug/kg	97		65-124		
Diethylphthalate	18	U	18.	6.0	ug/kg	90		68-125		
Dimethylphthalate	18	U	18.	6.0	ug/kg	91		70-130		
Bis(2-Ethylhexyl)phthalate	18	U	18.	6.0	ug/kg	95		67-143		
Fluoranthene	1.7	U	1.7	0.67	ug/kg	95		68-119		
Fluorene	1.7	U	1.7	0.67	ug/kg	116		75-123		
Indeno(1,2,3-cd)pyrene	1.7	U	1.7	0.67	ug/kg	97		66-122		
1-Methylnaphthalene	1.7	U	1.7	0.67	ug/kg	105		74-113		
2-Methylnaphthalene	1.7	U	1.7	0.67	ug/kg	101		78-121		
Naphthalene	1.7	U	1.7	0.67	ug/kg	96		64-120		
N-Nitrosodimethylamine	1.7	U	1.7	0.67	ug/kg	121		30-125		
Di-n-octylphthalate	18	U	18.	6.0	ug/kg	88		57-133		
Phenanthrene	1.7	U	1.7	0.67	ug/kg	105		72-110		
Pyrene	1.7	U	1.7	0.67	ug/kg	101		71-120		
Batch number: 13106A16A	Sample number(s): 7022144-7022146,7022148,7022150-7022151									
11a TPH by EPA 8015B GRO	1.0	U	1.0	0.2	mg/kg	90		67-119		
Batch number: 13106A20A	Sample number(s): 7022142									
TPH-GRO S.CA water C5-C12	50	U	50.	20	ug/l	99	98	75-135	2	30
Batch number: 131050014A	Sample number(s): 7022143									
19b Formaldehyde 8315A	50	U	50.	30	ug/l	74	91	60-140	21*	20
Batch number: 131080019A	Sample number(s): 7022144-7022146,7022148-7022152									
Aroclor 5432	33	U	33.	10	ug/kg					
Aroclor 5442	33	U	33.	10	ug/kg	70	72	36-106	2	30
Aroclor 5460	33	U	33.	10	ug/kg					
PCB-1016	17	U	17.	3.3	ug/kg	94		80-120		
PCB-1221	17	U	17.	5.1	ug/kg					
PCB-1232	17	U	17.	4.1	ug/kg					

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1382816
Reported: 04/25/13 at 02:24 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
PCB-1242	17	U	17.	3.3	ug/kg					
PCB-1248	17	U	17.	3.3	ug/kg					
PCB-1254	17	U	17.	4.4	ug/kg					
PCB-1260	17	U	17.	3.9	ug/kg	114		72-120		
PCB-1262	17	U	17.	3.3	ug/kg					
PCB-1268	17	U	17.	3.3	ug/kg					
Batch number: 131060013A	Sample number(s): 7022144-7022146,7022148-7022152									
EFH (C12-C14)	5.0	U	5.0	2.0	mg/kg	98	95	70-123	3	20
EFH (C15-C20)	5.0	U	5.0	2.0	mg/kg	113	110	75-128	3	20
EFH (C21-C30)	5.0	U	5.0	2.0	mg/kg	110	108	64-134	2	20
EFH (C30-C40)	10	U	10.	4.0	mg/kg	79	70	65-128	12	20
EFH (C8-C11)	5.0	U	5.0	2.0	mg/kg	82	79	49-107	4	20
Batch number: 131070637001	Sample number(s): 7022144-7022152									
Aluminum	40.0	U	40.0	7.71	mg/kg	99		80-120		
Antimony	4.00	U	4.00	0.500	mg/kg	101		80-120		
Arsenic	4.00	U	4.00	0.330	mg/kg	109		80-120		
Barium	1.00	U	1.00	0.0330	mg/kg	104		80-120		
Beryllium	1.00	U	1.00	0.0670	mg/kg	102		80-120		
Boron	10.0	U	10.0	0.830	mg/kg	96		80-120		
Cadmium	1.00	U	1.00	0.0330	mg/kg	106		80-120		
Calcium	20.0	U	20.0	4.02	mg/kg	101		80-120		
Chromium	3.00	U	3.00	0.0880	mg/kg	100		80-120		
Cobalt	1.00	U	1.00	0.0900	mg/kg	106		80-120		
Copper	2.00	U	2.00	0.180	mg/kg	103		80-120		
Iron	40.0	U	40.0	3.80	mg/kg	103		80-120		
Lead	3.00	U	3.00	0.470	mg/kg	106		80-120		
Lithium	4.0	U	4.0	0.55	mg/kg	103		80-120		
Magnesium	1.82	J	10.0	1.73	mg/kg	99		80-120		
Manganese	1.00	U	1.00	0.0830	mg/kg	104		80-120		
Molybdenum	2.00	U	2.00	0.170	mg/kg	100		80-120		
Nickel	2.00	U	2.00	0.110	mg/kg	107		80-120		
Phosphorus	10.9		10.0	0.510	mg/kg	116		80-120		
Potassium	100 U		100.	13.5	mg/kg	101		80-120		
Sodium	100 U		100.	16.7	mg/kg	99		80-120		
Tin	1.40	J	10.0	0.220	mg/kg	101		80-120		
Titanium	1.00	U	1.00	0.170	mg/kg	102		80-120		
Vanadium	1.00	U	1.00	0.110	mg/kg	98		80-120		
Zinc	4.00	U	4.00	0.200	mg/kg	108		80-120		
Zirconium	5.00	U	5.00	0.830	mg/kg	101		80-120		
Batch number: 131070637001A	Sample number(s): 7022144-7022152									
Silver	0.200	U	0.200	0.0200	mg/kg	110		80-120		
Strontium	0.400	U	0.400	0.0340	mg/kg	111		80-120		
Thallium	0.200	U	0.200	0.0300	mg/kg	97		80-120		
Batch number: 131070637001B	Sample number(s): 7022144-7022152									
Selenium	0.400	U	0.400	0.100	mg/kg	117		80-120		
Batch number: 131070638001	Sample number(s): 7022144-7022152									
3a Mercury 7471A	0.0167	U	0.0167	0.0103	mg/kg	109		85-120		
Batch number: 13107039401A	Sample number(s): 7022144,7022147-7022152									

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1382816
Reported: 04/25/13 at 02:24 PM

Analysis Name	Blank Result	Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
15a pH by 9045C					100		95-105		
Batch number: 13112162401A	Sample number(s): 7022144-7022152								
14a Moisture Content by 160.3					100		80-120		
14a Moisture Content by 160.3					100		80-120		
14a Moisture Content by 160.3					100		80-120		

Analysis Name	Blank Result	Blank MRL**	Blank EDL	Report Units	OPR %REC	OPRD %REC	OPR/OPRD Limits	RPD	RPD Max
Batch number: 13106003	Sample number(s): 7022144-7022146,7022148-7022152								
2378-TCDD	0.0457 J	1.00	0.0319	ng/kg	97		67-158		
12378-PeCDD	5.00 U	5.00	0.0277	ng/kg	99		70-142		
123478-HxCDD	0.0315 J	5.00	0.0190	ng/kg	106		70-164		
123678-HxCDD	0.0201 J	5.00	0.0194	ng/kg	104		76-134		
123789-HxCDD	5.00 U	5.00	0.0188	ng/kg	104		64-162		
1234678-HpCDD	0.0840 J	5.00	0.0207	ng/kg	101		70-140		
OCDD	0.121 J	10.0	0.0175	ng/kg	102		78-144		
2378-TCDF	1.00 U	1.00	0.0320	ng/kg	102		75-158		
12378-PeCDF	0.0560 J	5.00	0.0169	ng/kg	103		80-134		
23478-PeCDF	0.0310 J	5.00	0.0162	ng/kg	105		68-160		
123478-HxCDF	0.0446 J	5.00	0.0127	ng/kg	105		72-134		
123678-HxCDF	0.0356 J	5.00	0.0121	ng/kg	103		84-130		
123789-HxCDF	0.0566 J	5.00	0.0121	ng/kg	107		78-130		
234678-HxCDF	0.0222 J	5.00	0.0117	ng/kg	105		70-156		
1234678-HpCDF	0.0530 J	5.00	0.00783	ng/kg	104		82-122		
1234789-HpCDF	0.0413 J	5.00	0.0103	ng/kg	105		78-138		
OCDF	0.0815 J	10.0	0.0257	ng/kg	104		63-170		
TEQ WHO 2005 - EDLx0.0	0.0162			ng/kg					

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 13110SLA026	Sample number(s): 7022144-7022146,7022148-7022152 UNSPK: 7022144								
Acenaphthene	97	92	48-127	5	30				
Acenaphthylene	104	96	49-121	7	30				
Anthracene	102	97	52-126	5	30				
Benzo(a)anthracene	108	93	32-135	15	30				
Benzo(a)pyrene	100	86	36-138	15	30				
Benzo(b)fluoranthene	109	88	26-142	20	30				
Benzo(e)pyrene	91	77	70-130	17	30				
Benzo(g,h,i)perylene	81	82	33-141	2	30				
Benzo(k)fluoranthene	103	90	47-129	13	30				
Butylbenzylphthalate	107	88	59-153	19	30				

*- Outside of specification
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(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1382816
Reported: 04/25/13 at 02:24 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Di-n-butylphthalate	88	79	62-154	10	30				
Chrysene	107	86	29-148	21	30				
Dibenz(a,h)anthracene	86	89	34-125	4	30				
Diethylphthalate	84	88	76-127	5	30				
Dimethylphthalate	93	88	62-136	6	30				
Bis(2-Ethylhexyl)phthalate	129	116	39-167	11	30				
Fluoranthene	100	72	47-135	30	30				
Fluorene	110	108	50-129	3	30				
Indeno(1,2,3-cd)pyrene	84	86	17-136	2	30				
1-Methylnaphthalene	102	98	50-131	4	30				
2-Methylnaphthalene	100	98	28-144	2	30				
Naphthalene	95	91	31-148	4	30				
N-Nitrosodimethylamine	85	108	48-113	23	30				
Di-n-octylphthalate	85	72	52-162	16	30				
Phenanthrene	115	99	29-142	15	30				
Pyrene	110	64	26-143	49*	30				
Batch number: 13106A16A	Sample number(s): 7022144-7022146,7022148,7022150-7022151 UNSPK: 7022144								
11a TPH by EPA 8015B GRO	92	100	39-118	9	30				
Batch number: 131080019A	Sample number(s): 7022144-7022146,7022148-7022152 UNSPK: 7022144								
PCB-1016	76	87	16-146	13	50				
PCB-1260	81	99	40-134	20	50				
Batch number: 131060013A	Sample number(s): 7022144-7022146,7022148-7022152 UNSPK: 7022144								
EFH (C12-C14)	96	113	49-123	16	20				
EFH (C15-C20)	152*	217*	49-123	35*	20				
EFH (C21-C30)	125*	235*	49-123	33*	20				
EFH (C30-C40)	198*	401*	49-123	35*	20				
EFH (C8-C11)	92	108	49-123	16	20				
Batch number: 131070637001	Sample number(s): 7022144-7022152 UNSPK: 7022144 BKG: 7022144								
Aluminum	1359 (2)	1600 (2)	75-125	3	20	10,500	10,800	2	20
Antimony	70*	73*	75-125	4	20	1.54 J	1.48 J	4 (1)	20
Arsenic	111	108	75-125	2	20	2.01 J	2.79 J	32* (1)	20
Barium	105	100	75-125	3	20	70.2	68.6	2	20
Beryllium	99	99	75-125	1	20	0.469 J	0.472 J	1 (1)	20
Boron	94	95	75-125	0	20	3.12 J	3.00 J	4 (1)	20
Cadmium	105	104	75-125	1	20	0.409 J	0.437 J	7 (1)	20
Calcium	67 (2)	102 (2)	75-125	4	20	3,060	2,860	7	20
Chromium	103	118	75-125	8	20	18.0	17.9	1	20
Cobalt	101	100	75-125	1	20	4.98	4.86	3	20
Copper	101	101	75-125	0	20	5.00	5.12	2 (1)	20
Iron	1525 (2)	1576 (2)	75-125	0	20	18,500	19,000	3	20
Lead	106	104	75-125	1	20	5.00	5.37	7 (1)	20
Lithium	104	105	75-125	1	20	22.9	23.7	3	20
Magnesium	277 (2)	267 (2)	75-125	0	20	3,970	3,970	0	20
Manganese	107 (2)	104 (2)	75-125	0	20	275	269	2	20
Molybdenum	96	96	75-125	0	20	1.19 J	0.434 J	93* (1)	20
Nickel	100	99	75-125	1	20	8.44	8.47	0 (1)	20

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(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1382816
Reported: 04/25/13 at 02:24 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Phosphorus	98	132*	75-125	7	20	357	368	3	20
Potassium	129*	124	75-125	1	20	2,680	2,750	2	20
Sodium	96	97	75-125	2	20	59.7 J	60.9 J	2 (1)	20
Tin	92	91	75-125	0	20	2.85 J	2.68 J	6 (1)	20
Titanium	243 (2)	230 (2)	75-125	1	20	1,030	1,050	2	20
Vanadium	100	99	75-125	1	20	28.1	28.2	0	20
Zinc	112	111	75-125	0	20	53.7	54.2	1	20
Zirconium	95	94	75-125	1	20	1.08 J	1.96 J	57* (1)	20
Batch number: 131070637001A	Sample number(s): 7022144-7022152 UNSPK: 7022144 BKG: 7022144								
Silver	100	101	75-125	1	20	0.0299 J	0.0323 J	8 (1)	20
Strontium	89	103	75-125	6	20	11.7	11.4	2	20
Thallium	105	98	75-125	5	20	0.226	0.220	3 (1)	20
Batch number: 131070637001B	Sample number(s): 7022144-7022152 UNSPK: 7022144 BKG: 7022144								
Selenium	116	111	75-125	4	20	0.385 U	0.385 U	0 (1)	20
Batch number: 131070638001	Sample number(s): 7022144-7022152 UNSPK: 7022144 BKG: 7022144								
3a Mercury 7471A	112	111	65-135	1	20	0.0197 U	0.0198 U	0 (1)	20
Batch number: 13107039401A	Sample number(s): 7022144,7022147-7022152 BKG: 7022144								
15a pH by 9045C						7.71	7.69	0	3
Batch number: 13112162401A	Sample number(s): 7022144-7022152 BKG: 7022144								
14a Moisture Content by 160.3						2.6	2.8	5	20
14a Moisture Content by 160.3						2.6	2.8	5	20
14a Moisture Content by 160.3						2.6	2.8	5	20
Batch number: 13106003	Sample number(s): 7022144-7022146,7022148-7022152 UNSPK: 7022144								
2378-TCDD	92	94	40-135	3	20				
12378-PeCDD	98	99	40-135	2	20				
123478-HxCDD	104	106	40-135	3	20				
123678-HxCDD	106	102	40-135	2	20				
123789-HxCDD	105	102	40-135	3	20				
1234678-HpCDD	134	100	40-135	24*	20				
OCDD	266*	110	40-135	58*	20				
2378-TCDF	98	99	40-135	2	20				
12378-PeCDF	102	102	40-135	1	20				
23478-PeCDF	105	103	40-135	0	20				
123478-HxCDF	106	105	40-135	0	20				
123678-HxCDF	102	103	40-135	2	20				
123789-HxCDF	104	104	40-135	2	20				
234678-HxCDF	104	104	40-135	1	20				
1234678-HpCDF	109	105	40-135	3	20				
1234789-HpCDF	104	103	40-135	0	20				
OCDF	108	102	40-135	4	20				

Surrogate Quality Control

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1382816
Reported: 04/25/13 at 02:24 PM

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 7a SVOC SIM EPA 8270D
Batch number: 13110SLA026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
7022144	78	89	95
7022145	78	92	95
7022146	69	89	97
7022148	75	95	98
7022149	64	85	92
7022150	77	92	96
7022151	78	90	96
7022152	68	88	92
Blank	83	91	96
LCS	82	91	101
MS	78	92	95
MSD	69	89	97
Limits:	54-129	61-134	55-129

Analysis Name: 11a TPH by EPA 8015B GRO
Batch number: 13106A16A

	Trifluorotoluene-F
7022144	85
7022145	80
7022146	80
7022148	84
7022150	80
7022151	83
Blank	89
LCS	84
MS	80
MSD	80
Limits:	61-122

Analysis Name: 11b TPH by EPA 8015B GRO
Batch number: 13106A20A

	Trifluorotoluene-F
7022142	89
Blank	88
LCS	110
LCSD	112
Limits:	63-135

Analysis Name: 19b Formaldehyde 8315A
Batch number: 131050014A

	Butyraldehyde
7022143	114

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1382816
Reported: 04/25/13 at 02:24 PM

Surrogate Quality Control

Blank	79
LCS	80
LCSD	108
Limits:	45-145

Analysis Name: 19a PCBs and PCTs 8082A
Batch number: 131080019A

	Tetrachloro-m-xylene	Decachlorobiphenyl
7022144	117	98
7022145	113	86
7022146	121*	108
7022148	117	104
7022149	110	101
7022150	118	100
7022151	101	93
7022152	109	94
Blank	128*	117
LCS	127*	119
LCSD	131*	121*
MS	113	86
MSD	121*	108
Limits:	45-120	45-120

Analysis Name: 10a TPH by EPA 8015B (DRO)
Batch number: 131060013A

	Chlorobenzene	Orthoterphenyl
7022144	89	83
7022145	86	72
7022146	90	66
7022148	82	80
7022149	83	70
7022150	91	91
7022151	87	88
7022152	93	76
Blank	84	85
LCS	92	83
LCSD	88	81
MS	86	72
MSD	90	66
Limits:	37-125	66-123

Analysis Name: 23a Dioxin/Furan by EPA 1613B
Batch number: 13106003

	13C12-2378-TCDD	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF	13C12-234678-HxCDF	13C12-123789-HxCDF
7022144	69	92	82	87	84	85
7022145	80	84	86	88	86	93
7022146	75	84	86	86	85	91
7022148	85	94	99	101	99	101
7022149	79	87	88	90	87	95
7022150	66	77	81	82	82	87

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1382816
Reported: 04/25/13 at 02:24 PM

Surrogate Quality Control

7022151	68	78	78	81	78	79
7022152	76	84	87	90	88	90
Blank	70	82	86	88	88	94
MS	80	84	86	88	86	93
MSD	75	84	86	86	85	91
OPR	65	71	78	80	77	79
Limits:	25-164	21-178	26-152	26-123	28-136	29-147

	13C12-1234678-HpCDF	13C12-1234789-HpCDF	13C12-OCDF	13C12-12378-PeCDD	13C12-123478-HxCDD	13C12-123678-HxCDD
7022144	110	93	98	95	85	85
7022145	91	86	84	87	85	83
7022146	92	84	80	85	84	85
7022148	115	93	90	96	96	99
7022149	97	88	87	90	85	85
7022150	95	82	81	78	78	80
7022151	91	74	71	78	77	76
7022152	104	85	85	84	85	86
Blank	108	95	106	86	87	86
MS	91	86	84	87	85	83
MSD	92	84	80	85	84	85
OPR	85	73	71	71	75	75
Limits:	28-143	26-138	17-157	25-181	32-141	28-130

	13C12-123789-HxCDD	13C12-1234678-HpCDD	13C12-OCDD	13C12-2378-TCDF	13C12-12378-PeCDF
7022144	86	97	106	64	92
7022145	85	85	83	73	83
7022146	86	84	80	69	83
7022148	101	98	95	79	95
7022149	86	88	90	73	87
7022150	85	81	83	63	76
7022151	77	76	77	64	77
7022152	86	89	89	72	85
Blank	84	94	108	64	83
MS	85	85	83	73	83
MSD	86	84	80	69	83
OPR	75	76	76	62	71
Limits:	28-130	23-140	17-157	24-169	24-185

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(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Acct# 13013
Grp# 1382816

Sample# 7022142-52

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 4/12/2013
CarrierName: FedEx
AirbillNo: 7995 1854 7712

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20130412-01
Cooler #: 1, 2
Lab: Lancaster
Lab Phone: 717-556-7259
Lab Address: 2425 New Holland Pike Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Other Analysis/Notes
TB-041213	4/12/13 08:00	WQ	HCl	3 - 40 mL Vial	10																				X												
EB-041213	4/12/13 08:05	WQ	None	1 - 250 mL Amber	10																												X				
SL-536-SA7-SB-3.0-4.0MS	4/12/13 08:50	SO	None	6 - SS-Sleeve	10	X	X					X		X	X											X											MS/MSD
SL-536-SA7-SB-3.0-4.0MS	4/12/13 08:50	SO	None	1 - 8 oz glass	10													X																			MS/MSD
SL-536-SA7-SB-3.0-4.0MS	4/12/13 08:50	SO	None	9 - Encore	10																				X												MS/MSD
SL-836-SA7-SB-3.0-4.0	4/12/13 09:00	SO	None	2 - SS-Sleeve	10	X	X					X		X	X											X											
SL-836-SA7-SB-3.0-4.0	4/12/13 09:00	SO	None	1 - 4 oz glass	10													X																			
SL-836-SA7-SB-3.0-4.0	4/12/13 09:00	SO	None	3 - Encore	10																				X												
SL-535-SA7-SB-0.0-0.5	4/12/13 10:30	SO	None	2 - SS-Sleeve	10	X	X					X		X	X											X											
SL-535-SA7-SB-0.0-0.5	4/12/13 10:30	SO	None	1 - 4 oz glass	10													X																			
SL-535-SA7-SB-4.0-5.0	4/12/13 10:57	SO	None	2 - SS-Sleeve	10	X	X					X		X	X											X											
SL-535-SA7-SB-4.0-5.0	4/12/13 10:57	SO	None	1 - 4 oz glass	10													X																			
SL-535-SA7-SB-4.0-5.0	4/12/13 10:57	SO	None	3 - Encore	10																				X												
SL-535-SA7-SB-9.0-10.0	4/12/13 11:30	SO	None	2 - 16 oz glass	10	X	X					X		X	X											X											
SL-535-SA7-SB-9.0-10.0	4/12/13 11:30	SO	None	1 - 4 oz glass	10													X																			
SL-535-SA7-SB-9.0-10.0	4/12/13 11:30	SO	None	3 - Encore	10																				X												
SL-534-SA7-SB-0.0-0.5	4/12/13 14:30	SO	None	2 - SS-Sleeve	10	X	X					X		X	X											X											
SL-534-SA7-SB-0.0-0.5	4/12/13 14:30	SO	None	1 - 4 oz glass	10													X																			

Acct# 13013
Grp# 1382816

Sample# 7022142-52

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 4/12/2013
CarrierName: FedEx
AirbillNo: 7995 1854 7712

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20130412-01
Cooler #: 1, 2
Lab: Lancaster
Lab Phone: 717-556-7259
Lab Address: 2425 New Holland Pike Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate Confirm 6850/6860	Perchlorate 314.0/331	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Other Analysis/Notes

Special Instructions:

Sampler: Steven Mason

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
V. Cato	4/12/13										
			Bruny/Ah	4.15.13	900						

13013 / 1382816 / 7022142-52

From: Burgesser, Todd [BurgesserTE@cdmsmith.com]
Sent: Monday, April 15, 2013 9:54 AM
To: Nicole Maljovec; Hartman, Pamela; Cortes, Vidal A.
Cc: Zakowski, Cherie
Subject: RE: Friday's Samples arrived this AM, Encores past HT, run?

Please run the pH and GRO

-----Original Message-----
From: Nicole Maljovec [mailto:nmaljovec@lancasterlabs.com]
Sent: Monday, April 15, 2013 7:53 AM
To: Hartman, Pamela; Cortes, Vidal A.
Cc: Burgesser, Todd; Zakowski, Cherie
Subject: Friday's Samples arrived this AM, Encores past HT, run?
Importance: High

Good morning all,
Friday's samples arrived this morning instead of Saturday. The temperature is fine and the bottles are intact. The pH in soil and encores for TPH-GRO are past hold by ~1 day. Do you want to run these?

Formaldehyde in water (EB sample) is still in hold. We'll have it extracted today and meet HT.

Thanks,
Nicole

Nicole Maljovec
Eurofins Lancaster Labs
Phone: 717-556-7259

-----Original Message-----
From: Cortes, Vidal A. [mailto:cortesva@cdmsmith.com]
Sent: Friday, April 12, 2013 6:41 PM
To: !US19_SSFLShip
Cc: Hartman, Pamela
Subject: RE: SSFL 04/11/13

Hello,

Please see the attached COCs for samples collected on 4/12.

Thank you,

Vidal Cortes

CDM Smith
111 Academy, Suite 150
Irvine, CA 92617

(949) 930-9823 - direct | fax
(949) 241-9173 - cell
cortesva@cdmsmith.com<mailto:wallinsl@cdm.com>
cdmsmith.com

eurofins | Lancaster Laboratories

Grp # 1382816

Environmental Sample Administration
Receipt Documentation Log

Client/Project: CDM

Date of Receipt: 4.15.13

Time of Receipt: 900

Source Code: 501

Shipping Container Sealed: (YES) NO

Custody Seal Present * : (YES) NO

* Custody seal was intact unless otherwise noted in the discrepancy section

Package: (Chilled) Not Chilled

Temperature of Shipping Containers							
Cooler #	Thermometer ID	Temperature (°C)	Temp Bottle (TB) or Surface Temp (ST)	Wet Ice (WI) or Dry Ice (DI) or Ice Packs (IP)	Ice Present? Y/N	Loose (L) Bagged Ice (B) or NA	Comments
1	DT121	1.9	TB	WI	Y	B	
2	↓	1.5	↓	↓	↓	↓	
3							
4							
5							
6							

Number of Trip Blanks received NOT listed on chain of custody: 0

Paperwork Discrepancy/Unpacking Problems:

very little Ice in bags

Unpacker Signature/Emp#: Bunny M 2299 **Date/Time:** 4.15.13 9:25

Issued by Dept. 6042 Management

2174.06

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	**BMQL**	Below Minimum Quantitation Level
N.D.	none detected	**MPN**	Most Probable Number
TNTC	Too Numerous To Count	**CP Units**	cobalt-chloroplatinate units
IU	International Units	**NTU**	nephelometric turbidity units
umhos/cm	micromhos/cm	**ng**	nanogram(s)
C	degrees Celsius	**F**	degrees Fahrenheit
meq	milliequivalents	**lb.**	pound(s)
g	gram(s)	**kg**	kilogram(s)
µg	microgram(s)	**mg**	milligram(s)
mL	milliliter(s)	**L**	liter(s)
m3	cubic meter(s)	**µL**	microliter(s)
		pg/L	picogram/liter

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

J estimated value – The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	**B**	Value is <CRDL, but ≥IDL
B	Analyte was also detected in the blank	**E**	Estimated due to interference
C	Pesticide result confirmed by GC/MS	**M**	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	**N**	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	**S**	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	**U**	Compound was not detected
P	Concentration difference between primary and confirmation columns >25%	**W**	Post digestion spike out of control limits
U	Compound was not detected	*****	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	**+**	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as “analyze immediately” are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL LANCASTER LABORATORIES BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF LANCASTER LABORATORIES AND (B) WHETHER LANCASTER LABORATORIES HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Lancaster Laboratories which includes any conditions that vary from the Standard Terms and Conditions, and Lancaster hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

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

April 26, 2013

Project: Phase 3 Subarea 7

Submittal Date: 04/16/2013
Group Number: 1383064
SDG: PH031
PO Number: 1204-002-001-AL
State of Sample Origin: CA

Client Sample Description	Lancaster Labs (LLI) #
TB-041513 Water	7023135
SL-534-SA7-SB-5.5-6.5 Soil	7023136
SL-537-SA7-SB-0.0-0.5 Soil	7023137
SL-538-SA7-SB-0.0-0.5 Soil	7023138
SL-522-SA7-SB-0.0-0.5 Soil	7023139
SL-521-SA7-SB-0.0-0.5 Soil	7023140

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

ELECTRONIC COPY TO	LLI	Attn: Nicole Maljovec
ELECTRONIC COPY TO	Eurofins Lancaster Labs	Attn: Natalie Luciano

Respectfully Submitted,

Nicole L. Maljovec
Principal Specialist Group Leader

(717) 556-7259

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Analysis Report

Sample Description: TB-041513 Water
SSFL Phase 3 Subarea 7

LLI Sample # WW 7023135
LLI Group # 1383064
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/15/2013 08:00

Submitted: 04/16/2013 09:15
Reported: 04/26/2013 11:10

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

CTB15 SDG#: PH031-01TB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC Volatiles	**TPH GRO SW-8015B**		ug/l		ug/l	ug/l	
08229	TPH-GRO S.CA water C5-C12	n.a.	50	U	50	20	1

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08229	11b TPH by EPA 8015B GRO	TPH GRO SW-8015B	1	13106A20B	04/17/2013 10:32	Catherine J Schwarz	1
01146	GC VOA Water Prep	SW-846 5030B	1	13106A20B	04/17/2013 10:32	Catherine J Schwarz	1

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

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Analysis Report

Sample Description: SL-534-SA7-SB-5.5-6.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7023136
LLI Group # 1383064
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/15/2013 08:45 by SM

Submitted: 04/16/2013 09:15
Reported: 04/26/2013 11:10

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

53456 SDG#: PH031-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.69	1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.35	1
12969	Anthracene	120-12-7	1.7	U	1.7	0.35	1
12969	Benzo(a)anthracene	56-55-3	1.7	U	1.7	0.69	1
12969	Benzo(a)pyrene	50-32-8	1.7	U	1.7	0.69	1
12969	Benzo(b)fluoranthene	205-99-2	1.7	U	1.7	0.69	1
12969	Benzo(e)pyrene	192-97-2	18	U	18	3.5	1
12969	Benzo(g,h,i)perylene	191-24-2	1.7	U	1.7	0.69	1
12969	Benzo(k)fluoranthene	207-08-9	1.7	U	1.7	0.69	1
12969	Butylbenzylphthalate	85-68-7	19	U	19	6.2	1
12969	Di-n-butylphthalate	84-74-2	19	U	19	6.2	1
12969	Chrysene	218-01-9	1.7	U	1.7	0.35	1
12969	Dibenz(a,h)anthracene	53-70-3	1.7	U	1.7	0.69	1
12969	Diethylphthalate	84-66-2	19	U	19	6.2	1
12969	Dimethylphthalate	131-11-3	19	U	19	6.2	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	8.0	J	19	6.2	1
12969	Fluoranthene	206-44-0	1.7	U	1.7	0.69	1
12969	Fluorene	86-73-7	1.7	U	1.7	0.69	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.7	U	1.7	0.69	1
12969	1-Methylnaphthalene	90-12-0	1.7	U	1.7	0.69	1
12969	2-Methylnaphthalene	91-57-6	1.7	U	1.7	0.69	1
12969	Naphthalene	91-20-3	1.7	U	1.7	0.69	1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.69	1
12969	Di-n-octylphthalate	117-84-0	19	U	19	6.2	1
12969	Phenanthrene	85-01-8	1.7	U	1.7	0.69	1
12969	Pyrene	129-00-0	1.7	U	1.7	0.69	1
GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	1.1	U	1.1	0.2	25.77
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
10592	Aroclor 5432	63496-31-1	34	U	34	10	1
10592	Aroclor 5442	12642-23-8	34	U	34	10	1
10592	Aroclor 5460	11126-42-4	34	U	34	10	1
10592	PCB-1016	12674-11-2	18	U	18	3.4	1
10592	PCB-1221	11104-28-2	18	U	18	5.3	1
10592	PCB-1232	11141-16-5	18	U	18	4.2	1
10592	PCB-1242	53469-21-9	18	U	18	3.4	1
10592	PCB-1248	12672-29-6	18	U	18	3.4	1
10592	PCB-1254	11097-69-1	18	U	18	4.5	1
10592	PCB-1260	11096-82-5	18	U	18	4.0	1
10592	PCB-1262	37324-23-5	18	U	18	3.4	1
10592	PCB-1268	11100-14-4	18	U	18	3.4	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.2	U	5.2	2.1	1
12952	EFH (C15-C20)	n.a.	2.8	J	5.2	2.1	1

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

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Analysis Report

Sample Description: SL-534-SA7-SB-5.5-6.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7023136
LLI Group # 1383064
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/15/2013 08:45 by SM

Submitted: 04/16/2013 09:15
Reported: 04/26/2013 11:10

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

53456 SDG#: PH031-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C21-C30)	n.a.	8.1		5.2	2.1	1
12952	EFH (C30-C40)	n.a.	12		10	4.2	1
12952	EFH (C8-C11)	n.a.	5.2	U	5.2	2.1	1
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	14,300		40.3	7.77	1
06944	Antimony	7440-36-0	1.87	J	4.03	0.504	1
06935	Arsenic	7440-38-2	2.46	J	4.03	0.333	1
06946	Barium	7440-39-3	81.0		1.01	0.0333	1
06947	Beryllium	7440-41-7	0.582	J	1.01	0.0675	1
07914	Boron	7440-42-8	1.47	J	10.1	0.837	1
06949	Cadmium	7440-43-9	0.418	J	1.01	0.0333	1
01650	Calcium	7440-70-2	2,510		20.2	4.05	1
06951	Chromium	7440-47-3	24.5		3.02	0.0887	1
06952	Cobalt	7440-48-4	5.81		1.01	0.0907	1
06953	Copper	7440-50-8	6.24		2.02	0.181	1
01654	Iron	7439-89-6	23,300		40.3	3.83	1
06955	Lead	7439-92-1	5.42		3.02	0.474	1
01656	Lithium	7439-93-2	24.2		4.0	0.55	1
01657	Magnesium	7439-95-4	5,260		10.1	1.74	1
06958	Manganese	7439-96-5	289		1.01	0.0837	1
06960	Molybdenum	7439-98-7	0.441	J	2.02	0.171	1
06961	Nickel	7440-02-0	10.9		2.02	0.111	1
10145	Phosphorus	7723-14-0	295		10.1	0.514	1
01662	Potassium	7440-09-7	2,570		101	13.6	1
01667	Sodium	7440-23-5	67.8	J	101	16.8	1
06969	Tin	7440-31-5	2.63	J	10.1	0.222	1
06970	Titanium	7440-32-6	1,200		1.01	0.171	1
06971	Vanadium	7440-62-2	39.4		1.01	0.111	1
06972	Zinc	7440-66-6	50.4		4.03	0.202	1
10146	Zirconium	7440-67-7	5.04	U	5.04	0.837	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.403	U	0.403	0.101	2
06142	Silver	7440-22-4	0.0330	J	0.202	0.0202	2
06144	Strontium	7440-24-6	13.8		0.403	0.0343	2
06145	Thallium	7440-28-0	0.227		0.202	0.0302	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0125	J	0.0206	0.0106	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045C	n.a.	7.09		0.0100	0.0100	1
	The pH was measured in water at 22.1 C.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	4.6		0.10	0.10	1

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

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Analysis Report

Sample Description: SL-534-SA7-SB-5.5-6.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7023136
LLI Group # 1383064
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/15/2013 08:45 by SM

Submitted: 04/16/2013 09:15
Reported: 04/26/2013 11:10

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

53456 SDG#: PH031-02

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

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

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

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Analysis Report

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Submitted: 04/16/2013 09:15
Reported: 04/26/2013 11:10

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

53456 SDG#: PH031-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0290 J	1.04	0.0229	1
11031	12378-PeCDD	40321-76-4	0.0653 JBQ	5.19	0.0223	1
11031	123478-HxCDD	39227-28-6	0.0331 JBQ	5.19	0.0222	1
11031	123678-HxCDD	57653-85-7	0.0745 JBQ	5.19	0.0226	1
11031	123789-HxCDD	19408-74-3	0.0901 JBQ	5.19	0.0212	1
11031	1234678-HpCDD	35822-46-9	0.643 JBQ	5.19	0.0258	1
11031	OCDD	3268-87-9	7.49 JB	10.4	0.0224	1
11031	2378-TCDF	51207-31-9	1.04 U	1.04	0.0215	1
11031	12378-PeCDF	57117-41-6	0.134 JBQ	5.19	0.0125	1
11031	23478-PeCDF	57117-31-4	0.0780 JBQ	5.19	0.0126	1
11031	123478-HxCDF	70648-26-9	0.0810 JBQ	5.19	0.0143	1
11031	123678-HxCDF	57117-44-9	0.0694 JBQ	5.19	0.0128	1
11031	123789-HxCDF	72918-21-9	0.0773 JBQ	5.19	0.0169	1
11031	234678-HxCDF	60851-34-5	0.0541 JBQ	5.19	0.0143	1
11031	1234678-HpCDF	67562-39-4	0.154 JB	5.19	0.00718	1
11031	1234789-HpCDF	55673-89-7	0.0444 JBQ	5.19	0.0137	1
11031	OCDF	39001-02-0	0.327 JBQ	10.4	0.0373	1
Toxic Equivalents	**EPA 1613B**		ng/kg	ng/kg	ng/kg	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.0327			1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	87	25 - 164
13C12-12378-PeCDD	91	25 - 181
13C12-123478-HxCDD	92	32 - 141
13C12-123678-HxCDD	93	28 - 130
13C12-123789-HxCDD	91	28 - 130
13C12-1234678-HpCDD	92	23 - 140
13C12-OCDD	86	17 - 157
13C12-2378-TCDF	80	24 - 169
13C12-12378-PeCDF	94	24 - 185
13C12-23478-PeCDF	88	21 - 178
13C12-123478-HxCDF	90	26 - 152
13C12-123678-HxCDF	100	26 - 123
13C12-234678-HxCDF	91	28 - 136
13C12-123789-HxCDF	85	29 - 147
13C12-1234678-HpCDF	117	28 - 143
13C12-1234789-HpCDF	70	26 - 138
13C12-OCDF	61	17 - 157

Dioxins/Furans Data Qualifiers:

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

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

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Analysis Report

Sample Description: SL-534-SA7-SB-5.5-6.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7023136
LLI Group # 1383064
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/15/2013 08:45 by SM

Submitted: 04/16/2013 09:15
Reported: 04/26/2013 11:10

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

53456 SDG#: PH031-02

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

F *Interference is present*
S *Saturation of detection signal*

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

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Analysis Report

Sample Description: SL-534-SA7-SB-5.5-6.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7023136
LLI Group # 1383064
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Project Name: Phase 3 Subarea 7

Collected: 04/15/2013 08:45 by SM

Submitted: 04/16/2013 09:15
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CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

53456 SDG#: PH031-02

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13110SLA026	04/25/2013	11:13	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	13110SLA026	04/21/2013	07:00	Joseph S Feister	1
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	13106A16A	04/16/2013	20:06	Laura M Krieger	25.77
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201310630774	04/16/2013	15:03	Lisa J Cooke	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201310630774	04/16/2013	15:03	Lisa J Cooke	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	3	201310630774	04/16/2013	15:04	Lisa J Cooke	n.a.
10592	19a PCBs and PCTs 8082A	SW-846 8082A	1	131100011A	04/23/2013	02:50	Monica M Souders	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	131100011A	04/22/2013	08:00	Olivia Arosemena	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	131090007A	04/23/2013	05:08	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	131090007A	04/19/2013	16:25	JoElla L Rice	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13107001	04/18/2013	19:34	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13107001	04/17/2013	13:00	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010C	1	131070637001	04/21/2013	20:06	Tara L Snyder	1
06944	Antimony	SW-846 6010C	1	131070637001	04/21/2013	20:06	Tara L Snyder	1
06935	Arsenic	SW-846 6010C	1	131070637001	04/21/2013	20:06	Tara L Snyder	1
06946	Barium	SW-846 6010C	1	131070637001	04/21/2013	20:06	Tara L Snyder	1
06947	Beryllium	SW-846 6010C	1	131070637001	04/21/2013	20:06	Tara L Snyder	1
07914	Boron	SW-846 6010C	1	131070637001	04/21/2013	20:06	Tara L Snyder	1
06949	Cadmium	SW-846 6010C	1	131070637001	04/21/2013	20:06	Tara L Snyder	1
01650	Calcium	SW-846 6010C	1	131070637001	04/21/2013	20:06	Tara L Snyder	1
06951	Chromium	SW-846 6010C	1	131070637001	04/21/2013	20:06	Tara L Snyder	1
06952	Cobalt	SW-846 6010C	1	131070637001	04/21/2013	20:06	Tara L Snyder	1
06953	Copper	SW-846 6010C	1	131070637001	04/21/2013	20:06	Tara L Snyder	1
01654	Iron	SW-846 6010C	1	131070637001	04/21/2013	20:06	Tara L Snyder	1
06955	Lead	SW-846 6010C	1	131070637001	04/21/2013	20:06	Tara L Snyder	1
01656	Lithium	SW-846 6010C	1	131070637001	04/21/2013	20:06	Tara L Snyder	1
01657	Magnesium	SW-846 6010C	1	131070637001	04/21/2013	20:06	Tara L Snyder	1
06958	Manganese	SW-846 6010C	1	131070637001	04/21/2013	20:06	Tara L Snyder	1
06960	Molybdenum	SW-846 6010C	1	131070637001	04/21/2013	20:06	Tara L Snyder	1
06961	Nickel	SW-846 6010C	1	131070637001	04/21/2013	20:06	Tara L Snyder	1
10145	Phosphorus	SW-846 6010C	1	131070637001	04/21/2013	20:06	Tara L Snyder	1
01662	Potassium	SW-846 6010C	1	131070637001	04/21/2013	20:06	Tara L Snyder	1
01667	Sodium	SW-846 6010C	1	131070637001	04/21/2013	20:06	Tara L Snyder	1
06969	Tin	SW-846 6010C	1	131070637001	04/21/2013	20:06	Tara L Snyder	1
06970	Titanium	SW-846 6010C	1	131070637001	04/21/2013	20:06	Tara L Snyder	1
06971	Vanadium	SW-846 6010C	1	131070637001	04/21/2013	20:06	Tara L Snyder	1
06972	Zinc	SW-846 6010C	1	131070637001	04/21/2013	20:06	Tara L Snyder	1

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

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Analysis Report

Sample Description: SL-534-SA7-SB-5.5-6.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7023136
LLI Group # 1383064
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/15/2013 08:45 by SM

Submitted: 04/16/2013 09:15
Reported: 04/26/2013 11:10

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

53456 SDG#: PH031-02

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10146	Zirconium	SW-846 6010C	1	131070637001	04/21/2013 20:06	Tara L Snyder	1
06141	Selenium	SW-846 6020A	1	131070637001B	04/21/2013 02:15	David K Beck	2
06142	Silver	SW-846 6020A	1	131070637001A	04/21/2013 02:15	David K Beck	2
06144	Strontium	SW-846 6020A	1	131070637001A	04/21/2013 02:15	David K Beck	2
06145	Thallium	SW-846 6020A	1	131070637001A	04/21/2013 02:15	David K Beck	2
00159	3a Mercury 7471A	SW-846 7471B	1	131070638001	04/18/2013 08:21	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	131070637001	04/17/2013 23:35	Annamaria Stipkovits	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	131070638001	04/18/2013 02:45	Annamaria Stipkovits	1
00394	15a pH by 9045C	SW-846 9045D modified	1	13107039401A	04/17/2013 17:30	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13112162401A	04/23/2013 22:37	Scott W Freisher	1

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

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Analysis Report

Sample Description: SL-537-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7023137
LLI Group # 1383064
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/15/2013 09:50 by SM

Submitted: 04/16/2013 09:15
Reported: 04/26/2013 11:10

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

53700 SDG#: PH031-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.68	1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.34	1
12969	Anthracene	120-12-7	1.7	U	1.7	0.34	1
12969	Benzo(a)anthracene	56-55-3	1.1	J	1.7	0.68	1
12969	Benzo(a)pyrene	50-32-8	1.5	J	1.7	0.68	1
12969	Benzo(b)fluoranthene	205-99-2	3.0		1.7	0.68	1
12969	Benzo(e)pyrene	192-97-2	17	U	17	3.4	1
12969	Benzo(g,h,i)perylene	191-24-2	1.6	J	1.7	0.68	1
12969	Benzo(k)fluoranthene	207-08-9	1.4	J	1.7	0.68	1
12969	Butylbenzylphthalate	85-68-7	18	U	18	6.1	1
12969	Di-n-butylphthalate	84-74-2	18	U	18	6.1	1
12969	Chrysene	218-01-9	2.8		1.7	0.34	1
12969	Dibenz(a,h)anthracene	53-70-3	1.7	U	1.7	0.68	1
12969	Diethylphthalate	84-66-2	18	U	18	6.1	1
12969	Dimethylphthalate	131-11-3	18	U	18	6.1	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	32		18	6.1	1
12969	Fluoranthene	206-44-0	2.5		1.7	0.68	1
12969	Fluorene	86-73-7	1.7	U	1.7	0.68	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	0.97	J	1.7	0.68	1
12969	1-Methylnaphthalene	90-12-0	1.7	U	1.7	0.68	1
12969	2-Methylnaphthalene	91-57-6	0.72	J	1.7	0.68	1
12969	Naphthalene	91-20-3	0.84	J	1.7	0.68	1
12969	N-Nitrosodimethylamine	62-75-9	3.4		1.7	0.68	1
12969	Di-n-octylphthalate	117-84-0	18	U	18	6.1	1
12969	Phenanthrene	85-01-8	2.1		1.7	0.68	1
12969	Pyrene	129-00-0	3.1		1.7	0.68	1
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
10592	Aroclor 5432	63496-31-1	33	U	33	10	1
10592	Aroclor 5442	12642-23-8	33	U	33	10	1
10592	Aroclor 5460	11126-42-4	33	U	33	10	1
10592	PCB-1016	12674-11-2	17	U	17	3.3	1
10592	PCB-1221	11104-28-2	17	U	17	5.1	1
10592	PCB-1232	11141-16-5	17	U	17	4.1	1
10592	PCB-1242	53469-21-9	17	U	17	3.3	1
10592	PCB-1248	12672-29-6	17	U	17	3.3	1
10592	PCB-1254	11097-69-1	17	U	17	4.4	1
10592	PCB-1260	11096-82-5	11	J	17	3.9	1
10592	PCB-1262	37324-23-5	17	U	17	3.3	1
10592	PCB-1268	11100-14-4	17	U	17	3.3	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.1	U	5.1	2.0	1
12952	EFH (C15-C20)	n.a.	5.1	U	5.1	2.0	1
12952	EFH (C21-C30)	n.a.	6.0		5.1	2.0	1
12952	EFH (C30-C40)	n.a.	12		10	4.1	1
12952	EFH (C8-C11)	n.a.	5.1	U	5.1	2.0	1
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	

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

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Analysis Report

Sample Description: SL-537-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7023137
LLI Group # 1383064
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/15/2013 09:50 by SM

Submitted: 04/16/2013 09:15
Reported: 04/26/2013 11:10

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

53700 SDG#: PH031-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	11,000		40.5	7.81	1
06944	Antimony	7440-36-0	1.73	J	4.05	0.507	1
06935	Arsenic	7440-38-2	2.50	J	4.05	0.334	1
06946	Barium	7440-39-3	73.3		1.01	0.0334	1
06947	Beryllium	7440-41-7	0.477	J	1.01	0.0679	1
07914	Boron	7440-42-8	2.96	J	10.1	0.841	1
06949	Cadmium	7440-43-9	0.511	J	1.01	0.0334	1
01650	Calcium	7440-70-2	3,020		20.3	4.07	1
06951	Chromium	7440-47-3	16.5		3.04	0.0892	1
06952	Cobalt	7440-48-4	5.33		1.01	0.0912	1
06953	Copper	7440-50-8	6.31		2.03	0.182	1
01654	Iron	7439-89-6	20,600		40.5	3.85	1
06955	Lead	7439-92-1	11.8		3.04	0.476	1
01656	Lithium	7439-93-2	27.2		4.1	0.56	1
01657	Magnesium	7439-95-4	4,640		10.1	1.75	1
06958	Manganese	7439-96-5	296		1.01	0.0841	1
06960	Molybdenum	7439-98-7	2.03	U	2.03	0.172	1
06961	Nickel	7440-02-0	8.37		2.03	0.111	1
10145	Phosphorus	7723-14-0	466		10.1	0.517	1
01662	Potassium	7440-09-7	3,900		101	13.7	1
01667	Sodium	7440-23-5	62.0	J	101	16.9	1
06969	Tin	7440-31-5	2.78	J	10.1	0.223	1
06970	Titanium	7440-32-6	1,110		1.01	0.172	1
06971	Vanadium	7440-62-2	31.0		1.01	0.111	1
06972	Zinc	7440-66-6	62.8		4.05	0.203	1
10146	Zirconium	7440-67-7	0.916	J	5.07	0.841	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.405	U	0.405	0.101	2
06142	Silver	7440-22-4	0.0361	J	0.203	0.0203	2
06144	Strontium	7440-24-6	11.3		0.405	0.0345	2
06145	Thallium	7440-28-0	0.250		0.203	0.0304	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0156	J	0.0203	0.0105	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045C	n.a.	7.43		0.0100	0.0100	1
	The pH was measured in water at 22.4 C.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	2.3		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

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

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Analysis Report

Sample Description: SL-537-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7023137
LLI Group # 1383064
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/15/2013 09:50 by SM

Submitted: 04/16/2013 09:15
Reported: 04/26/2013 11:10

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

53700 SDG#: PH031-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0372	JQ	1.02	0.0242	1
11031	12378-PeCDD	40321-76-4	0.288	JB	5.09	0.0326	1
11031	123478-HxCDD	39227-28-6	0.340	JBQ	5.09	0.0340	1
11031	123678-HxCDD	57653-85-7	0.969	JB	5.09	0.0336	1
11031	123789-HxCDD	19408-74-3	0.814	JB	5.09	0.0337	1
11031	1234678-HpCDD	35822-46-9	22.5	B	5.09	0.0389	1
11031	OCDD	3268-87-9	193	B	10.2	0.0347	1
11031	2378-TCDF	51207-31-9	0.0992	J	1.02	0.0323	1
11031	12378-PeCDF	57117-41-6	0.169	JB	5.09	0.0193	1
11031	23478-PeCDF	57117-31-4	0.138	JBQ	5.09	0.0187	1
11031	123478-HxCDF	70648-26-9	0.201	JB	5.09	0.0282	1
11031	123678-HxCDF	57117-44-9	0.167	JB	5.09	0.0243	1
11031	123789-HxCDF	72918-21-9	0.0382	JBQ	5.09	0.0326	1
11031	234678-HxCDF	60851-34-5	0.173	JB	5.09	0.0273	1
11031	1234678-HpCDF	67562-39-4	2.91	JB	5.09	0.0149	1
11031	1234789-HpCDF	55673-89-7	0.261	JBQ	5.09	0.0273	1
11031	OCDF	39001-02-0	7.37	JB	10.2	0.0392	1
Toxic Equivalents	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.850				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	77	25 - 164
13C12-12378-PeCDD	81	25 - 181
13C12-123478-HxCDD	80	32 - 141
13C12-123678-HxCDD	83	28 - 130
13C12-123789-HxCDD	83	28 - 130
13C12-1234678-HpCDD	78	23 - 140
13C12-OCDD	71	17 - 157
13C12-2378-TCDF	69	24 - 169
13C12-12378-PeCDF	82	24 - 185
13C12-23478-PeCDF	77	21 - 178
13C12-123478-HxCDF	77	26 - 152
13C12-123678-HxCDF	85	26 - 123
13C12-234678-HxCDF	77	28 - 136
13C12-123789-HxCDF	72	29 - 147
13C12-1234678-HpCDF	99	28 - 143
13C12-1234789-HpCDF	60	26 - 138
13C12-OCDF	51	17 - 157

Dioxins/Furans Data Qualifiers:

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

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

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Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: SL-537-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7023137
LLI Group # 1383064
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/15/2013 09:50 by SM

Submitted: 04/16/2013 09:15
Reported: 04/26/2013 11:10

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

53700 SDG#: PH031-03

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

F *Interference is present*
S *Saturation of detection signal*

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

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2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Analysis Report

Sample Description: SL-537-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7023137
LLI Group # 1383064
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/15/2013 09:50 by SM

Submitted: 04/16/2013 09:15
Reported: 04/26/2013 11:10

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

53700 SDG#: PH031-03

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13110SLA026	04/25/2013	11:42	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	13110SLA026	04/21/2013	07:00	Joseph S Feister	1
10592	19a PCBs and PCTs 8082A	SW-846 8082A	1	131100011A	04/23/2013	03:08	Jessica L Miller	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	131100011A	04/22/2013	08:00	Olivia Arosemena	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	131090007A	04/23/2013	04:27	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	131090007A	04/19/2013	16:25	JoElla L Rice	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13107001	04/18/2013	20:31	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13107001	04/17/2013	13:00	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010C	1	131070637001	04/21/2013	20:10	Tara L Snyder	1
06944	Antimony	SW-846 6010C	1	131070637001	04/21/2013	20:10	Tara L Snyder	1
06935	Arsenic	SW-846 6010C	1	131070637001	04/21/2013	20:10	Tara L Snyder	1
06946	Barium	SW-846 6010C	1	131070637001	04/21/2013	20:10	Tara L Snyder	1
06947	Beryllium	SW-846 6010C	1	131070637001	04/21/2013	20:10	Tara L Snyder	1
07914	Boron	SW-846 6010C	1	131070637001	04/21/2013	20:10	Tara L Snyder	1
06949	Cadmium	SW-846 6010C	1	131070637001	04/21/2013	20:10	Tara L Snyder	1
01650	Calcium	SW-846 6010C	1	131070637001	04/21/2013	20:10	Tara L Snyder	1
06951	Chromium	SW-846 6010C	1	131070637001	04/21/2013	20:10	Tara L Snyder	1
06952	Cobalt	SW-846 6010C	1	131070637001	04/21/2013	20:10	Tara L Snyder	1
06953	Copper	SW-846 6010C	1	131070637001	04/21/2013	20:10	Tara L Snyder	1
01654	Iron	SW-846 6010C	1	131070637001	04/21/2013	20:10	Tara L Snyder	1
06955	Lead	SW-846 6010C	1	131070637001	04/21/2013	20:10	Tara L Snyder	1
01656	Lithium	SW-846 6010C	1	131070637001	04/21/2013	20:10	Tara L Snyder	1
01657	Magnesium	SW-846 6010C	1	131070637001	04/21/2013	20:10	Tara L Snyder	1
06958	Manganese	SW-846 6010C	1	131070637001	04/21/2013	20:10	Tara L Snyder	1
06960	Molybdenum	SW-846 6010C	1	131070637001	04/21/2013	20:10	Tara L Snyder	1
06961	Nickel	SW-846 6010C	1	131070637001	04/21/2013	20:10	Tara L Snyder	1
10145	Phosphorus	SW-846 6010C	1	131070637001	04/21/2013	20:10	Tara L Snyder	1
01662	Potassium	SW-846 6010C	1	131070637001	04/21/2013	20:10	Tara L Snyder	1
01667	Sodium	SW-846 6010C	1	131070637001	04/21/2013	20:10	Tara L Snyder	1
06969	Tin	SW-846 6010C	1	131070637001	04/21/2013	20:10	Tara L Snyder	1
06970	Titanium	SW-846 6010C	1	131070637001	04/21/2013	20:10	Tara L Snyder	1
06971	Vanadium	SW-846 6010C	1	131070637001	04/21/2013	20:10	Tara L Snyder	1
06972	Zinc	SW-846 6010C	1	131070637001	04/21/2013	20:10	Tara L Snyder	1
10146	Zirconium	SW-846 6010C	1	131070637001	04/21/2013	20:10	Tara L Snyder	1
06141	Selenium	SW-846 6020A	1	131070637001B	04/21/2013	02:17	David K Beck	2
06142	Silver	SW-846 6020A	1	131070637001A	04/21/2013	02:17	David K Beck	2
06144	Strontium	SW-846 6020A	1	131070637001A	04/21/2013	02:17	David K Beck	2
06145	Thallium	SW-846 6020A	1	131070637001A	04/21/2013	02:17	David K Beck	2

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

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Analysis Report

Sample Description: SL-537-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7023137
LLI Group # 1383064
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/15/2013 09:50 by SM

Submitted: 04/16/2013 09:15
Reported: 04/26/2013 11:10

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

53700 SDG#: PH031-03

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00159	3a Mercury 7471A	SW-846 7471B	1	131070638001	04/18/2013 08:23	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	131070637001	04/17/2013 23:35	Annamaria Stipkovits	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	131070638001	04/18/2013 02:45	Annamaria Stipkovits	1
00394	15a pH by 9045C	SW-846 9045D modified	1	13107039401A	04/17/2013 17:30	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13112162401A	04/23/2013 22:37	Scott W Freisher	1

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

Sample Description: SL-538-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7023138
LLI Group # 1383064
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/15/2013 10:50 by SM

Submitted: 04/16/2013 09:15
Reported: 04/26/2013 11:10

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

53800 SDG#: PH031-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.67	1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.33	1
12969	Anthracene	120-12-7	0.50	J	1.7	0.33	1
12969	Benzo(a)anthracene	56-55-3	3.4		1.7	0.67	1
12969	Benzo(a)pyrene	50-32-8	4.4		1.7	0.67	1
12969	Benzo(b)fluoranthene	205-99-2	8.8		1.7	0.67	1
12969	Benzo(e)pyrene	192-97-2	3.9	J	17	3.3	1
12969	Benzo(g,h,i)perylene	191-24-2	3.7		1.7	0.67	1
12969	Benzo(k)fluoranthene	207-08-9	3.2		1.7	0.67	1
12969	Butylbenzylphthalate	85-68-7	18	U	18	6.0	1
12969	Di-n-butylphthalate	84-74-2	18	U	18	6.0	1
12969	Chrysene	218-01-9	6.4		1.7	0.33	1
12969	Dibenz(a,h)anthracene	53-70-3	0.89	J	1.7	0.67	1
12969	Diethylphthalate	84-66-2	18	U	18	6.0	1
12969	Dimethylphthalate	131-11-3	18	U	18	6.0	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	18	U	18	6.0	1
12969	Fluoranthene	206-44-0	8.2		1.7	0.67	1
12969	Fluorene	86-73-7	0.79	J	1.7	0.67	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	3.1		1.7	0.67	1
12969	1-Methylnaphthalene	90-12-0	1.7	U	1.7	0.67	1
12969	2-Methylnaphthalene	91-57-6	0.93	J	1.7	0.67	1
12969	Naphthalene	91-20-3	0.88	J	1.7	0.67	1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.67	1
12969	Di-n-octylphthalate	117-84-0	18	U	18	6.0	1
12969	Phenanthrene	85-01-8	4.8		1.7	0.67	1
12969	Pyrene	129-00-0	9.6		1.7	0.67	1
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
10592	Aroclor 5432	63496-31-1	33	U	33	10	1
10592	Aroclor 5442	12642-23-8	33	U	33	10	1
10592	Aroclor 5460	11126-42-4	33	U	33	10	1
10592	PCB-1016	12674-11-2	17	U	17	3.3	1
10592	PCB-1221	11104-28-2	17	U	17	5.1	1
10592	PCB-1232	11141-16-5	17	U	17	4.1	1
10592	PCB-1242	53469-21-9	17	U	17	3.3	1
10592	PCB-1248	12672-29-6	17	U	17	3.3	1
10592	PCB-1254	11097-69-1	17	U	17	4.4	1
10592	PCB-1260	11096-82-5	17	U	17	3.9	1
10592	PCB-1262	37324-23-5	17	U	17	3.3	1
10592	PCB-1268	11100-14-4	17	U	17	3.3	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.1	U	5.1	2.0	1
12952	EFH (C15-C20)	n.a.	5.1	U	5.1	2.0	1
12952	EFH (C21-C30)	n.a.	18		5.1	2.0	1
12952	EFH (C30-C40)	n.a.	34		10	4.1	1
12952	EFH (C8-C11)	n.a.	5.1	U	5.1	2.0	1
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	

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

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Analysis Report

Sample Description: SL-538-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7023138
LLI Group # 1383064
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/15/2013 10:50 by SM

Submitted: 04/16/2013 09:15
Reported: 04/26/2013 11:10

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

53800 SDG#: PH031-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	11,600		40.2	7.75	1
06944	Antimony	7440-36-0	1.49	J	4.02	0.503	1
06935	Arsenic	7440-38-2	1.83	J	4.02	0.332	1
06946	Barium	7440-39-3	81.1		1.01	0.0332	1
06947	Beryllium	7440-41-7	0.492	J	1.01	0.0673	1
07914	Boron	7440-42-8	3.01	J	10.1	0.834	1
06949	Cadmium	7440-43-9	0.445	J	1.01	0.0332	1
01650	Calcium	7440-70-2	2,470		20.1	4.04	1
06951	Chromium	7440-47-3	17.0		3.02	0.0885	1
06952	Cobalt	7440-48-4	4.87		1.01	0.0905	1
06953	Copper	7440-50-8	5.72		2.01	0.181	1
01654	Iron	7439-89-6	19,500		40.2	3.82	1
06955	Lead	7439-92-1	10.6		3.02	0.472	1
01656	Lithium	7439-93-2	24.5		4.0	0.55	1
01657	Magnesium	7439-95-4	4,030		10.1	1.74	1
06958	Manganese	7439-96-5	281		1.01	0.0834	1
06960	Molybdenum	7439-98-7	0.266	J	2.01	0.171	1
06961	Nickel	7440-02-0	8.86		2.01	0.111	1
10145	Phosphorus	7723-14-0	409		10.1	0.513	1
01662	Potassium	7440-09-7	3,600		101	13.6	1
01667	Sodium	7440-23-5	60.1	J	101	16.8	1
06969	Tin	7440-31-5	2.62	J	10.1	0.221	1
06970	Titanium	7440-32-6	1,060		1.01	0.171	1
06971	Vanadium	7440-62-2	28.9		1.01	0.111	1
06972	Zinc	7440-66-6	76.1		4.02	0.201	1
10146	Zirconium	7440-67-7	5.03	U	5.03	0.834	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.402	U	0.402	0.101	2
06142	Silver	7440-22-4	0.0394	J	0.201	0.0201	2
06144	Strontium	7440-24-6	13.6		0.402	0.0342	2
06145	Thallium	7440-28-0	0.267		0.201	0.0302	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0152	J	0.0195	0.0101	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045C	n.a.	7.50		0.0100	0.0100	1
	The pH was measured in water at 22.4 C.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	1.5		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

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

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Analysis Report

Sample Description: SL-538-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7023138
LLI Group # 1383064
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/15/2013 10:50 by SM

Submitted: 04/16/2013 09:15
Reported: 04/26/2013 11:10

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

53800 SDG#: PH031-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0426	J	0.971	0.0247	1
11031	12378-PeCDD	40321-76-4	0.319	JBQ	4.85	0.0351	1
11031	123478-HxCDD	39227-28-6	0.533	JB	4.85	0.0354	1
11031	123678-HxCDD	57653-85-7	1.59	JB	4.85	0.0355	1
11031	123789-HxCDD	19408-74-3	1.20	JB	4.85	0.0308	1
11031	1234678-HpCDD	35822-46-9	42.8	B	4.85	0.0494	1
11031	OCDD	3268-87-9	490	B	9.71	0.0357	1
11031	2378-TCDF	51207-31-9	0.116	J	0.971	0.0336	1
11031	12378-PeCDF	57117-41-6	0.281	JB	4.85	0.0189	1
11031	23478-PeCDF	57117-31-4	0.207	JB	4.85	0.0185	1
11031	123478-HxCDF	70648-26-9	0.270	JBQ	4.85	0.0300	1
11031	123678-HxCDF	57117-44-9	0.254	JB	4.85	0.0273	1
11031	123789-HxCDF	72918-21-9	0.147	JBQ	4.85	0.0335	1
11031	234678-HxCDF	60851-34-5	0.302	JB	4.85	0.0300	1
11031	1234678-HpCDF	67562-39-4	5.37	B	4.85	0.0173	1
11031	1234789-HpCDF	55673-89-7	0.416	JB	4.85	0.0295	1
11031	OCDF	39001-02-0	13.2	B	9.71	0.0318	1
Toxic Equivalents	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	1.15				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	72	25 - 164
13C12-12378-PeCDD	77	25 - 181
13C12-123478-HxCDD	79	32 - 141
13C12-123678-HxCDD	81	28 - 130
13C12-123789-HxCDD	85	28 - 130
13C12-1234678-HpCDD	78	23 - 140
13C12-OCDD	77	17 - 157
13C12-2378-TCDF	67	24 - 169
13C12-12378-PeCDF	80	24 - 185
13C12-23478-PeCDF	74	21 - 178
13C12-123478-HxCDF	77	26 - 152
13C12-123678-HxCDF	85	26 - 123
13C12-234678-HxCDF	77	28 - 136
13C12-123789-HxCDF	76	29 - 147
13C12-1234678-HpCDF	98	28 - 143
13C12-1234789-HpCDF	65	26 - 138
13C12-OCDF	61	17 - 157

Dioxins/Furans Data Qualifiers:

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

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

Sample Description: SL-538-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7023138
LLI Group # 1383064
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/15/2013 10:50 by SM

Submitted: 04/16/2013 09:15
Reported: 04/26/2013 11:10

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

53800 SDG#: PH031-04

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

F *Interference is present*
S *Saturation of detection signal*

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

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Analysis Report

Sample Description: SL-538-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7023138
LLI Group # 1383064
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/15/2013 10:50 by SM

Submitted: 04/16/2013 09:15
Reported: 04/26/2013 11:10

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

53800 SDG#: PH031-04

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13110SLA026	04/25/2013	12:11	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	13110SLA026	04/21/2013	07:00	Joseph S Feister	1
10592	19a PCBs and PCTs 8082A	SW-846 8082A	1	131100011A	04/23/2013	04:04	Monica M Souders	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	131100011A	04/22/2013	08:00	Olivia Arosemena	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	131090007A	04/23/2013	06:10	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	131090007A	04/19/2013	16:25	JoElla L Rice	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13107001	04/18/2013	21:27	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13107001	04/17/2013	13:00	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010C	1	131070637001	04/21/2013	20:14	Tara L Snyder	1
06944	Antimony	SW-846 6010C	1	131070637001	04/21/2013	20:14	Tara L Snyder	1
06935	Arsenic	SW-846 6010C	1	131070637001	04/21/2013	20:14	Tara L Snyder	1
06946	Barium	SW-846 6010C	1	131070637001	04/21/2013	20:14	Tara L Snyder	1
06947	Beryllium	SW-846 6010C	1	131070637001	04/21/2013	20:14	Tara L Snyder	1
07914	Boron	SW-846 6010C	1	131070637001	04/21/2013	20:14	Tara L Snyder	1
06949	Cadmium	SW-846 6010C	1	131070637001	04/21/2013	20:14	Tara L Snyder	1
01650	Calcium	SW-846 6010C	1	131070637001	04/21/2013	20:14	Tara L Snyder	1
06951	Chromium	SW-846 6010C	1	131070637001	04/21/2013	20:14	Tara L Snyder	1
06952	Cobalt	SW-846 6010C	1	131070637001	04/21/2013	20:14	Tara L Snyder	1
06953	Copper	SW-846 6010C	1	131070637001	04/21/2013	20:14	Tara L Snyder	1
01654	Iron	SW-846 6010C	1	131070637001	04/21/2013	20:14	Tara L Snyder	1
06955	Lead	SW-846 6010C	1	131070637001	04/21/2013	20:14	Tara L Snyder	1
01656	Lithium	SW-846 6010C	1	131070637001	04/21/2013	20:14	Tara L Snyder	1
01657	Magnesium	SW-846 6010C	1	131070637001	04/21/2013	20:14	Tara L Snyder	1
06958	Manganese	SW-846 6010C	1	131070637001	04/21/2013	20:14	Tara L Snyder	1
06960	Molybdenum	SW-846 6010C	1	131070637001	04/21/2013	20:14	Tara L Snyder	1
06961	Nickel	SW-846 6010C	1	131070637001	04/21/2013	20:14	Tara L Snyder	1
10145	Phosphorus	SW-846 6010C	1	131070637001	04/21/2013	20:14	Tara L Snyder	1
01662	Potassium	SW-846 6010C	1	131070637001	04/21/2013	20:14	Tara L Snyder	1
01667	Sodium	SW-846 6010C	1	131070637001	04/21/2013	20:14	Tara L Snyder	1
06969	Tin	SW-846 6010C	1	131070637001	04/21/2013	20:14	Tara L Snyder	1
06970	Titanium	SW-846 6010C	1	131070637001	04/21/2013	20:14	Tara L Snyder	1
06971	Vanadium	SW-846 6010C	1	131070637001	04/21/2013	20:14	Tara L Snyder	1
06972	Zinc	SW-846 6010C	1	131070637001	04/21/2013	20:14	Tara L Snyder	1
10146	Zirconium	SW-846 6010C	1	131070637001	04/21/2013	20:14	Tara L Snyder	1
06141	Selenium	SW-846 6020A	1	131070637001B	04/21/2013	02:20	David K Beck	2
06142	Silver	SW-846 6020A	1	131070637001A	04/21/2013	02:20	David K Beck	2
06144	Strontium	SW-846 6020A	1	131070637001A	04/21/2013	02:20	David K Beck	2
06145	Thallium	SW-846 6020A	1	131070637001A	04/21/2013	02:20	David K Beck	2

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

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Analysis Report

Sample Description: SL-538-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7023138
LLI Group # 1383064
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/15/2013 10:50 by SM

Submitted: 04/16/2013 09:15
Reported: 04/26/2013 11:10

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

53800 SDG#: PH031-04

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00159	3a Mercury 7471A	SW-846 7471B	1	131070638001	04/18/2013 08:25	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	131070637001	04/17/2013 23:35	Annamaria Stipkovits	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	131070638001	04/18/2013 02:45	Annamaria Stipkovits	1
00394	15a pH by 9045C	SW-846 9045D modified	1	13107039401A	04/17/2013 17:30	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13112162401A	04/23/2013 22:37	Scott W Freisher	1

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

Sample Description: SL-522-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7023139
LLI Group # 1383064
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/15/2013 13:30 by SM

Submitted: 04/16/2013 09:15
Reported: 04/26/2013 11:10

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

52200 SDG#: PH031-05

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.69	1
12969	Acenaphthylene	208-96-8	0.40	J	1.7	0.34	1
12969	Anthracene	120-12-7	1.6	J	1.7	0.34	1
12969	Benzo(a)anthracene	56-55-3	2.7		1.7	0.69	1
12969	Benzo(a)pyrene	50-32-8	2.1		1.7	0.69	1
12969	Benzo(b)fluoranthene	205-99-2	7.8		1.7	0.69	1
12969	Benzo(e)pyrene	192-97-2	3.5	J	18	3.4	1
12969	Benzo(g,h,i)perylene	191-24-2	1.7		1.7	0.69	1
12969	Benzo(k)fluoranthene	207-08-9	2.5		1.7	0.69	1
12969	Butylbenzylphthalate	85-68-7	19	U	19	6.2	1
12969	Di-n-butylphthalate	84-74-2	19	U	19	6.2	1
12969	Chrysene	218-01-9	9.3		1.7	0.34	1
12969	Dibenz(a,h)anthracene	53-70-3	1.7	U	1.7	0.69	1
12969	Diethylphthalate	84-66-2	19	U	19	6.2	1
12969	Dimethylphthalate	131-11-3	19	U	19	6.2	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	19		19	6.2	1
12969	Fluoranthene	206-44-0	16		1.7	0.69	1
12969	Fluorene	86-73-7	1.2	J	1.7	0.69	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.4	J	1.7	0.69	1
12969	1-Methylnaphthalene	90-12-0	0.94	J	1.7	0.69	1
12969	2-Methylnaphthalene	91-57-6	1.5	J	1.7	0.69	1
12969	Naphthalene	91-20-3	2.6		1.7	0.69	1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.69	1
12969	Di-n-octylphthalate	117-84-0	19	U	19	6.2	1
12969	Phenanthrene	85-01-8	14		1.7	0.69	1
12969	Pyrene	129-00-0	13		1.7	0.69	1
Pesticides/PCBs	**SW-846 8081B**		**ug/kg**		**ug/kg**	**ug/kg**	
10590	Aldrin	309-00-2	0.86	U	0.86	0.18	1
10590	Alpha BHC	319-84-6	0.86	U	0.86	0.18	1
10590	Beta BHC	319-85-7	2.0	U	2.0	1.0	1
10590	Gamma BHC - Lindane	58-89-9	0.86	U	0.86	0.18	1
10590	Chlordane	57-74-9	18	U	18	4.1	1
10590	p,p-DDD	72-54-8	1.8	U	1.8	0.34	1
10590	p,p-DDE	72-55-9	1.5	J	1.8	0.34	1
10590	p,p-DDT	50-29-3	1.7	J	1.8	0.36	1
10590	Delta BHC	319-86-8	0.86	U	0.86	0.47	1
10590	Dieldrin	60-57-1	1.8	U	1.8	0.34	1
10590	Endosulfan I	959-98-8	0.86	U	0.86	0.23	1
10590	Endosulfan II	33213-65-9	1.8	U	1.8	0.34	1
10590	Endosulfan Sulfate	1031-07-8	1.8	U	1.8	0.34	1
10590	Endrin	72-20-8	1.8	U	1.8	0.34	1
10590	Endrin Aldehyde	7421-93-4	1.8	U	1.8	0.34	1
10590	Endrin Ketone	53494-70-5	1.9	U	1.9	0.62	1
10590	Heptachlor	76-44-8	0.86	U	0.86	0.30	1
10590	Heptachlor Epoxide	1024-57-3	0.86	U	0.86	0.18	1
10590	Methoxychlor	72-43-5	7.0	U	7.0	1.8	1
10590	Mirex	2385-85-5	1.8	U	1.8	0.36	1
10590	Toxaphene	8001-35-2	34	U	34	12	1

Reporting limits were raised due to interference from the sample matrix.

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

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Analysis Report

Sample Description: SL-522-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7023139
LLI Group # 1383064
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/15/2013 13:30 by SM

Submitted: 04/16/2013 09:15
Reported: 04/26/2013 11:10

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

52200 SDG#: PH031-05

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
10592	Aroclor 5432	63496-31-1	34	U	34	10	1
10592	Aroclor 5442	12642-23-8	34	U	34	10	1
10592	Aroclor 5460	11126-42-4	34	U	34	10	1
10592	PCB-1016	12674-11-2	17	U	17	3.4	1
10592	PCB-1221	11104-28-2	17	U	17	5.2	1
10592	PCB-1232	11141-16-5	17	U	17	4.2	1
10592	PCB-1242	53469-21-9	17	U	17	3.4	1
10592	PCB-1248	12672-29-6	17	U	17	3.4	1
10592	PCB-1254	11097-69-1	17	U	17	4.5	1
10592	PCB-1260	11096-82-5	17	U	17	4.0	1
10592	PCB-1262	37324-23-5	17	U	17	3.4	1
10592	PCB-1268	11100-14-4	17	U	17	3.4	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.2	U	5.2	2.1	1
12952	EFH (C15-C20)	n.a.	2.2	J	5.2	2.1	1
12952	EFH (C21-C30)	n.a.	16		5.2	2.1	1
12952	EFH (C30-C40)	n.a.	32		10	4.1	1
12952	EFH (C8-C11)	n.a.	5.2	U	5.2	2.1	1
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	12,800		41.5	8.00	1
06944	Antimony	7440-36-0	1.89	J	4.15	0.519	1
06935	Arsenic	7440-38-2	2.40	J	4.15	0.342	1
06946	Barium	7440-39-3	88.8		1.04	0.0342	1
06947	Beryllium	7440-41-7	0.537	J	1.04	0.0695	1
07914	Boron	7440-42-8	3.26	J	10.4	0.861	1
06949	Cadmium	7440-43-9	0.468	J	1.04	0.0342	1
01650	Calcium	7440-70-2	2,600		20.7	4.17	1
06951	Chromium	7440-47-3	14.7		3.11	0.0913	1
06952	Cobalt	7440-48-4	4.75		1.04	0.0934	1
06953	Copper	7440-50-8	6.52		2.07	0.187	1
01654	Iron	7439-89-6	18,300		41.5	3.94	1
06955	Lead	7439-92-1	13.3		3.11	0.488	1
01656	Lithium	7439-93-2	23.6		4.1	0.57	1
01657	Magnesium	7439-95-4	3,780		10.4	1.79	1
06958	Manganese	7439-96-5	304		1.04	0.0861	1
06960	Molybdenum	7439-98-7	0.349	J	2.07	0.176	1
06961	Nickel	7440-02-0	8.48		2.07	0.114	1
10145	Phosphorus	7723-14-0	406		10.4	0.529	1
01662	Potassium	7440-09-7	2,900		104	14.0	1
01667	Sodium	7440-23-5	70.7	J	104	17.3	1
06969	Tin	7440-31-5	2.44	J	10.4	0.228	1
06970	Titanium	7440-32-6	973		1.04	0.176	1
06971	Vanadium	7440-62-2	27.1		1.04	0.114	1
06972	Zinc	7440-66-6	59.4		4.15	0.207	1
10146	Zirconium	7440-67-7	5.19	U	5.19	0.861	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	

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

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Analysis Report

Sample Description: SL-522-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7023139
LLI Group # 1383064
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/15/2013 13:30 by SM

Submitted: 04/16/2013 09:15
Reported: 04/26/2013 11:10

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

52200 SDG#: PH031-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 6020A**		**mg/kg**	**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.145 J	0.415	0.104	2
06142	Silver	7440-22-4	0.0296 J	0.207	0.0207	2
06144	Strontium	7440-24-6	22.5	0.415	0.0353	2
06145	Thallium	7440-28-0	0.236	0.207	0.0311	2
	SW-846 7471B		**mg/kg**	**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0217	0.0204	0.0105	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**	**Std. Units**	**Std. Units**	
00394	15a pH by 9045C	n.a.	6.84	0.0100	0.0100	1
	The pH was measured in water at 22.1 C.					
Wet Chemistry	**EPA 160.3 modified**		**%**	**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	3.6	0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.					

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

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Analysis Report

Sample Description: SL-522-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7023139
LLI Group # 1383064
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/15/2013 13:30 by SM

Submitted: 04/16/2013 09:15
Reported: 04/26/2013 11:10

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

52200 SDG#: PH031-05

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	0.0534	J	1.03	0.0269	1
11031	12378-PeCDD	40321-76-4	0.263	JBQ	5.17	0.0371	1
11031	123478-HxCDD	39227-28-6	0.474	JBQ	5.17	0.0370	1
11031	123678-HxCDD	57653-85-7	1.31	JB	5.17	0.0361	1
11031	123789-HxCDD	19408-74-3	0.961	JB	5.17	0.0340	1
11031	1234678-HpCDD	35822-46-9	32.0	B	5.17	0.0442	1
11031	OCDD	3268-87-9	274	B	10.3	0.0370	1
11031	2378-TCDF	51207-31-9	0.339	J	1.03	0.0460	1
11031	12378-PeCDF	57117-41-6	0.359	JBQ	5.17	0.0249	1
11031	23478-PeCDF	57117-31-4	0.457	JB	5.17	0.0245	1
11031	123478-HxCDF	70648-26-9	0.295	JB	5.17	0.0312	1
11031	123678-HxCDF	57117-44-9	0.244	JB	5.17	0.0270	1
11031	123789-HxCDF	72918-21-9	0.148	JBQ	5.17	0.0325	1
11031	234678-HxCDF	60851-34-5	0.259	JBQ	5.17	0.0282	1
11031	1234678-HpCDF	67562-39-4	2.24	JB	5.17	0.0165	1
11031	1234789-HpCDF	55673-89-7	0.223	JBQ	5.17	0.0304	1
11031	OCDF	39001-02-0	4.20	JB	10.3	0.0367	1
Toxic Equivalents	**EPA 1613B**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.932				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	78	25 - 164
13C12-12378-PeCDD	80	25 - 181
13C12-123478-HxCDD	81	32 - 141
13C12-123678-HxCDD	86	28 - 130
13C12-123789-HxCDD	88	28 - 130
13C12-1234678-HpCDD	79	23 - 140
13C12-OCDD	75	17 - 157
13C12-2378-TCDF	73	24 - 169
13C12-12378-PeCDF	83	24 - 185
13C12-23478-PeCDF	77	21 - 178
13C12-123478-HxCDF	80	26 - 152
13C12-123678-HxCDF	87	26 - 123
13C12-234678-HxCDF	80	28 - 136
13C12-123789-HxCDF	76	29 - 147
13C12-1234678-HpCDF	99	28 - 143
13C12-1234789-HpCDF	65	26 - 138
13C12-OCDF	56	17 - 157

Dioxins/Furans Data Qualifiers:

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

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

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Analysis Report

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Sample Description: SL-522-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7023139
LLI Group # 1383064
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/15/2013 13:30 by SM

Submitted: 04/16/2013 09:15
Reported: 04/26/2013 11:10

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

52200 SDG#: PH031-05

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

F *Interference is present*
S *Saturation of detection signal*

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

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Analysis Report

Sample Description: SL-522-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7023139
LLI Group # 1383064
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/15/2013 13:30 by SM

Submitted: 04/16/2013 09:15
Reported: 04/26/2013 11:10

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

52200 SDG#: PH031-05

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13110SLA026	04/25/2013 12:40	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	13110SLA026	04/21/2013 07:00	Joseph S Feister	1
10590	20a Pesticides by EPA 8081B	SW-846 8081B	1	131080012A	04/24/2013 01:30	Jamie L Brillhart	1
10592	19a PCBs and PCTs 8082A	SW-846 8082A	1	131100011A	04/23/2013 04:22	Monica M Souders	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	131100011A	04/22/2013 08:00	Olivia Arosemena	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	131080012A	04/18/2013 18:20	Sally L Appleyard	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	131090007A	04/23/2013 06:31	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	131090007A	04/19/2013 16:25	JoElla L Rice	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13107001	04/18/2013 22:24	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13107001	04/17/2013 13:00	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010C	1	131070637001	04/21/2013 20:18	Tara L Snyder	1
06944	Antimony	SW-846 6010C	1	131070637001	04/21/2013 20:18	Tara L Snyder	1
06935	Arsenic	SW-846 6010C	1	131070637001	04/21/2013 20:18	Tara L Snyder	1
06946	Barium	SW-846 6010C	1	131070637001	04/21/2013 20:18	Tara L Snyder	1
06947	Beryllium	SW-846 6010C	1	131070637001	04/21/2013 20:18	Tara L Snyder	1
07914	Boron	SW-846 6010C	1	131070637001	04/21/2013 20:18	Tara L Snyder	1
06949	Cadmium	SW-846 6010C	1	131070637001	04/21/2013 20:18	Tara L Snyder	1
01650	Calcium	SW-846 6010C	1	131070637001	04/21/2013 20:18	Tara L Snyder	1
06951	Chromium	SW-846 6010C	1	131070637001	04/21/2013 20:18	Tara L Snyder	1
06952	Cobalt	SW-846 6010C	1	131070637001	04/21/2013 20:18	Tara L Snyder	1
06953	Copper	SW-846 6010C	1	131070637001	04/21/2013 20:18	Tara L Snyder	1
01654	Iron	SW-846 6010C	1	131070637001	04/21/2013 20:18	Tara L Snyder	1
06955	Lead	SW-846 6010C	1	131070637001	04/21/2013 20:18	Tara L Snyder	1
01656	Lithium	SW-846 6010C	1	131070637001	04/21/2013 20:18	Tara L Snyder	1
01657	Magnesium	SW-846 6010C	1	131070637001	04/21/2013 20:18	Tara L Snyder	1
06958	Manganese	SW-846 6010C	1	131070637001	04/21/2013 20:18	Tara L Snyder	1
06960	Molybdenum	SW-846 6010C	1	131070637001	04/21/2013 20:18	Tara L Snyder	1
06961	Nickel	SW-846 6010C	1	131070637001	04/21/2013 20:18	Tara L Snyder	1
10145	Phosphorus	SW-846 6010C	1	131070637001	04/21/2013 20:18	Tara L Snyder	1
01662	Potassium	SW-846 6010C	1	131070637001	04/21/2013 20:18	Tara L Snyder	1
01667	Sodium	SW-846 6010C	1	131070637001	04/21/2013 20:18	Tara L Snyder	1
06969	Tin	SW-846 6010C	1	131070637001	04/21/2013 20:18	Tara L Snyder	1
06970	Titanium	SW-846 6010C	1	131070637001	04/21/2013 20:18	Tara L Snyder	1
06971	Vanadium	SW-846 6010C	1	131070637001	04/21/2013 20:18	Tara L Snyder	1
06972	Zinc	SW-846 6010C	1	131070637001	04/21/2013 20:18	Tara L Snyder	1
10146	Zirconium	SW-846 6010C	1	131070637001	04/21/2013 20:18	Tara L Snyder	1

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

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Analysis Report

Sample Description: SL-522-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7023139
LLI Group # 1383064
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/15/2013 13:30 by SM

Submitted: 04/16/2013 09:15
Reported: 04/26/2013 11:10

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

52200 SDG#: PH031-05

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06141	Selenium	SW-846 6020A	1	131070637001B	04/21/2013 02:22	David K Beck	2
06142	Silver	SW-846 6020A	1	131070637001A	04/21/2013 02:22	David K Beck	2
06144	Strontium	SW-846 6020A	1	131070637001A	04/21/2013 02:22	David K Beck	2
06145	Thallium	SW-846 6020A	1	131070637001A	04/21/2013 02:22	David K Beck	2
00159	3a Mercury 7471A	SW-846 7471B	1	131070638001	04/18/2013 08:27	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	131070637001	04/17/2013 23:35	Annamaria Stipkovits	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	131070638001	04/18/2013 02:45	Annamaria Stipkovits	1
00394	15a pH by 9045C	SW-846 9045D modified	1	13107039401B	04/17/2013 17:30	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13112162401A	04/23/2013 22:37	Scott W Freisher	1

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

Sample Description: SL-521-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7023140
LLI Group # 1383064
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/15/2013 14:15 by SM

Submitted: 04/16/2013 09:15
Reported: 04/26/2013 11:10

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

52100 SDG#: PH031-06*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.67	1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.33	1
12969	Anthracene	120-12-7	1.0	J	1.7	0.33	1
12969	Benzo(a)anthracene	56-55-3	1.5	J	1.7	0.67	1
12969	Benzo(a)pyrene	50-32-8	1.1	J	1.7	0.67	1
12969	Benzo(b)fluoranthene	205-99-2	6.4		1.7	0.67	1
12969	Benzo(e)pyrene	192-97-2	17	U	17	3.3	1
12969	Benzo(g,h,i)perylene	191-24-2	1.3	J	1.7	0.67	1
12969	Benzo(k)fluoranthene	207-08-9	2.7		1.7	0.67	1
12969	Butylbenzylphthalate	85-68-7	18	U	18	6.0	1
12969	Di-n-butylphthalate	84-74-2	18	U	18	6.0	1
12969	Chrysene	218-01-9	7.6		1.7	0.33	1
12969	Dibenz(a,h)anthracene	53-70-3	1.7	U	1.7	0.67	1
12969	Diethylphthalate	84-66-2	18	U	18	6.0	1
12969	Dimethylphthalate	131-11-3	18	U	18	6.0	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	8.4	J	18	6.0	1
12969	Fluoranthene	206-44-0	11		1.7	0.67	1
12969	Fluorene	86-73-7	1.7	U	1.7	0.67	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.1	J	1.7	0.67	1
12969	1-Methylnaphthalene	90-12-0	1.7	U	1.7	0.67	1
12969	2-Methylnaphthalene	91-57-6	1.7	U	1.7	0.67	1
12969	Naphthalene	91-20-3	1.7	U	1.7	0.67	1
12969	N-Nitrosodimethylamine	62-75-9	3.2		1.7	0.67	1
12969	Di-n-octylphthalate	117-84-0	18	U	18	6.0	1
12969	Phenanthrene	85-01-8	5.9		1.7	0.67	1
12969	Pyrene	129-00-0	8.1		1.7	0.67	1
Pesticides/PCBs	**SW-846 8081B**		**ug/kg**		**ug/kg**	**ug/kg**	
10590	Aldrin	309-00-2	0.85	U	0.85	0.17	1
10590	Alpha BHC	319-84-6	0.85	U	0.85	0.17	1
10590	Beta BHC	319-85-7	1.9	U	1.9	0.98	1
10590	Gamma BHC - Lindane	58-89-9	0.85	U	0.85	0.17	1
10590	Chlordane	57-74-9	17	U	17	4.1	1
10590	p,p-DDD	72-54-8	1.7	U	1.7	0.34	1
10590	p,p-DDE	72-55-9	0.80	J	1.7	0.34	1
10590	p,p-DDT	50-29-3	0.62	J	1.7	0.36	1
10590	Delta BHC	319-86-8	0.85	U	0.85	0.46	1
10590	Dieldrin	60-57-1	1.7	U	1.7	0.34	1
10590	Endosulfan I	959-98-8	0.85	U	0.85	0.22	1
10590	Endosulfan II	33213-65-9	1.7	U	1.7	0.34	1
10590	Endosulfan Sulfate	1031-07-8	1.7	U	1.7	0.34	1
10590	Endrin	72-20-8	1.7	U	1.7	0.34	1
10590	Endrin Aldehyde	7421-93-4	1.7	U	1.7	0.34	1
10590	Endrin Ketone	53494-70-5	1.8	U	1.8	0.61	1
10590	Heptachlor	76-44-8	0.85	U	0.85	0.17	1
10590	Heptachlor Epoxide	1024-57-3	0.85	U	0.85	0.17	1
10590	Methoxychlor	72-43-5	6.8	U	6.8	1.7	1
10590	Mirex	2385-85-5	1.7	U	1.7	0.36	1
10590	Toxaphene	8001-35-2	34	U	34	12	1

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

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Analysis Report

Sample Description: SL-521-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7023140
LLI Group # 1383064
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/15/2013 14:15 by SM

Submitted: 04/16/2013 09:15
Reported: 04/26/2013 11:10

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

52100 SDG#: PH031-06*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
10592	Aroclor 5432	63496-31-1	33	U	33	10	1
10592	Aroclor 5442	12642-23-8	33	U	33	10	1
10592	Aroclor 5460	11126-42-4	17	J	33	10	1
10592	PCB-1016	12674-11-2	17	U	17	3.3	1
10592	PCB-1221	11104-28-2	17	U	17	5.1	1
10592	PCB-1232	11141-16-5	17	U	17	4.1	1
10592	PCB-1242	53469-21-9	17	U	17	3.3	1
10592	PCB-1248	12672-29-6	17	U	17	3.3	1
10592	PCB-1254	11097-69-1	6.7	J	17	4.4	1
10592	PCB-1260	11096-82-5	17	U	17	3.9	1
10592	PCB-1262	37324-23-5	17	U	17	3.3	1
10592	PCB-1268	11100-14-4	17	U	17	3.3	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.1	U	5.1	2.0	1
12952	EFH (C15-C20)	n.a.	5.1	U	5.1	2.0	1
12952	EFH (C21-C30)	n.a.	7.0		5.1	2.0	1
12952	EFH (C30-C40)	n.a.	14		10	4.1	1
12952	EFH (C8-C11)	n.a.	5.1	U	5.1	2.0	1
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	16,700		39.2	7.55	1
06944	Antimony	7440-36-0	1.52	J	3.92	0.490	1
06935	Arsenic	7440-38-2	3.85	J	3.92	0.323	1
06946	Barium	7440-39-3	79.6		0.979	0.0323	1
06947	Beryllium	7440-41-7	0.618	J	0.979	0.0656	1
07914	Boron	7440-42-8	2.86	J	9.79	0.813	1
06949	Cadmium	7440-43-9	0.379	J	0.979	0.0323	1
01650	Calcium	7440-70-2	2,210		19.6	3.94	1
06951	Chromium	7440-47-3	14.8		2.94	0.0862	1
06952	Cobalt	7440-48-4	4.71		0.979	0.0881	1
06953	Copper	7440-50-8	5.01		1.96	0.176	1
01654	Iron	7439-89-6	19,500		39.2	3.72	1
06955	Lead	7439-92-1	8.40		2.94	0.460	1
01656	Lithium	7439-93-2	25.0		3.9	0.54	1
01657	Magnesium	7439-95-4	3,830		9.79	1.69	1
06958	Manganese	7439-96-5	249		0.979	0.0813	1
06960	Molybdenum	7439-98-7	0.491	J	1.96	0.166	1
06961	Nickel	7440-02-0	7.54		1.96	0.108	1
10145	Phosphorus	7723-14-0	363		9.79	0.499	1
01662	Potassium	7440-09-7	2,990		97.9	13.2	1
01667	Sodium	7440-23-5	64.5	J	97.9	16.4	1
06969	Tin	7440-31-5	2.81	J	9.79	0.215	1
06970	Titanium	7440-32-6	1,140		0.979	0.166	1
06971	Vanadium	7440-62-2	29.5		0.979	0.108	1
06972	Zinc	7440-66-6	80.4		3.92	0.196	1
10146	Zirconium	7440-67-7	4.90	U	4.90	0.813	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	

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

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Analysis Report

Sample Description: SL-521-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7023140
LLI Group # 1383064
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/15/2013 14:15 by SM

Submitted: 04/16/2013 09:15
Reported: 04/26/2013 11:10

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

52100 SDG#: PH031-06*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 6020A**		**mg/kg**	**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.173 J	0.392	0.0979	2
06142	Silver	7440-22-4	0.0272 J	0.196	0.0196	2
06144	Strontium	7440-24-6	17.3	0.392	0.0333	2
06145	Thallium	7440-28-0	0.245	0.196	0.0294	2
	SW-846 7471B		**mg/kg**	**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0176 J	0.0195	0.0101	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**	**Std. Units**	**Std. Units**	
00394	15a pH by 9045C	n.a.	6.85	0.0100	0.0100	1
	The pH was measured in water at 22.5 C.					
Wet Chemistry	**EPA 160.3 modified**		**%**	**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	1.8	0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.					

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

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Analysis Report

Sample Description: SL-521-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7023140
LLI Group # 1383064
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/15/2013 14:15 by SM

Submitted: 04/16/2013 09:15
Reported: 04/26/2013 11:10

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

52100 SDG#: PH031-06*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0697	JQ	1.02	0.0330	1
11031	12378-PeCDD	40321-76-4	0.367	JBQ	5.09	0.0491	1
11031	123478-HxCDD	39227-28-6	1.12	JB	5.09	0.0368	1
11031	123678-HxCDD	57653-85-7	2.92	JB	5.09	0.0362	1
11031	123789-HxCDD	19408-74-3	1.89	JB	5.09	0.0346	1
11031	1234678-HpCDD	35822-46-9	84.5	B	5.09	0.0691	1
11031	OCDD	3268-87-9	909	B	10.2	0.0487	1
11031	2378-TCDF	51207-31-9	0.142	J	1.02	0.0506	1
11031	12378-PeCDF	57117-41-6	0.588	JB	5.09	0.0438	1
11031	23478-PeCDF	57117-31-4	0.246	JB	5.09	0.0437	1
11031	123478-HxCDF	70648-26-9	0.429	JB	5.09	0.0274	1
11031	123678-HxCDF	57117-44-9	0.305	JB	5.09	0.0270	1
11031	123789-HxCDF	72918-21-9	0.133	JBQ	5.09	0.0289	1
11031	234678-HxCDF	60851-34-5	0.338	JB	5.09	0.0269	1
11031	1234678-HpCDF	67562-39-4	5.24	B	5.09	0.0195	1
11031	1234789-HpCDF	55673-89-7	0.317	JB	5.09	0.0259	1
11031	OCDF	39001-02-0	11.5	B	10.2	0.0332	1
Toxic Equivalents	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	1.98				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	80	25 - 164
13C12-12378-PeCDD	76	25 - 181
13C12-123478-HxCDD	81	32 - 141
13C12-123678-HxCDD	84	28 - 130
13C12-123789-HxCDD	84	28 - 130
13C12-1234678-HpCDD	77	23 - 140
13C12-OCDD	75	17 - 157
13C12-2378-TCDF	73	24 - 169
13C12-12378-PeCDF	76	24 - 185
13C12-23478-PeCDF	76	21 - 178
13C12-123478-HxCDF	85	26 - 152
13C12-123678-HxCDF	82	26 - 123
13C12-234678-HxCDF	83	28 - 136
13C12-123789-HxCDF	87	29 - 147
13C12-1234678-HpCDF	83	28 - 143
13C12-1234789-HpCDF	73	26 - 138
13C12-OCDF	68	17 - 157

Dioxins/Furans Data Qualifiers:

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

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

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Analysis Report

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Sample Description: SL-521-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7023140
LLI Group # 1383064
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/15/2013 14:15 by SM

Submitted: 04/16/2013 09:15
Reported: 04/26/2013 11:10

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

52100 SDG#: PH031-06*

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

F *Interference is present*
S *Saturation of detection signal*

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

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Analysis Report

Sample Description: SL-521-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7023140
LLI Group # 1383064
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/15/2013 14:15 by SM

Submitted: 04/16/2013 09:15
Reported: 04/26/2013 11:10

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

52100 SDG#: PH031-06*

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13110SLA026	04/25/2013 13:10	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	13110SLA026	04/21/2013 07:00	Joseph S Feister	1
10590	20a Pesticides by EPA 8081B	SW-846 8081B	1	131080012A	04/24/2013 02:06	Jamie L Brillhart	1
10592	19a PCBs and PCTs 8082A	SW-846 8082A	1	131100011A	04/23/2013 04:41	Jessica L Miller	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	131100011A	04/22/2013 08:00	Olivia Arosemena	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	131080012A	04/18/2013 18:20	Sally L Appleyard	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	131090007A	04/23/2013 04:47	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	131090007A	04/19/2013 16:25	JoElla L Rice	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13107001	04/18/2013 23:21	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13107001	04/17/2013 13:00	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010C	1	131070637001	04/21/2013 20:21	Tara L Snyder	1
06944	Antimony	SW-846 6010C	1	131070637001	04/21/2013 20:21	Tara L Snyder	1
06935	Arsenic	SW-846 6010C	1	131070637001	04/21/2013 20:21	Tara L Snyder	1
06946	Barium	SW-846 6010C	1	131070637001	04/21/2013 20:21	Tara L Snyder	1
06947	Beryllium	SW-846 6010C	1	131070637001	04/21/2013 20:21	Tara L Snyder	1
07914	Boron	SW-846 6010C	1	131070637001	04/21/2013 20:21	Tara L Snyder	1
06949	Cadmium	SW-846 6010C	1	131070637001	04/21/2013 20:21	Tara L Snyder	1
01650	Calcium	SW-846 6010C	1	131070637001	04/21/2013 20:21	Tara L Snyder	1
06951	Chromium	SW-846 6010C	1	131070637001	04/21/2013 20:21	Tara L Snyder	1
06952	Cobalt	SW-846 6010C	1	131070637001	04/21/2013 20:21	Tara L Snyder	1
06953	Copper	SW-846 6010C	1	131070637001	04/21/2013 20:21	Tara L Snyder	1
01654	Iron	SW-846 6010C	1	131070637001	04/21/2013 20:21	Tara L Snyder	1
06955	Lead	SW-846 6010C	1	131070637001	04/21/2013 20:21	Tara L Snyder	1
01656	Lithium	SW-846 6010C	1	131070637001	04/21/2013 20:21	Tara L Snyder	1
01657	Magnesium	SW-846 6010C	1	131070637001	04/21/2013 20:21	Tara L Snyder	1
06958	Manganese	SW-846 6010C	1	131070637001	04/21/2013 20:21	Tara L Snyder	1
06960	Molybdenum	SW-846 6010C	1	131070637001	04/21/2013 20:21	Tara L Snyder	1
06961	Nickel	SW-846 6010C	1	131070637001	04/21/2013 20:21	Tara L Snyder	1
10145	Phosphorus	SW-846 6010C	1	131070637001	04/21/2013 20:21	Tara L Snyder	1
01662	Potassium	SW-846 6010C	1	131070637001	04/21/2013 20:21	Tara L Snyder	1
01667	Sodium	SW-846 6010C	1	131070637001	04/21/2013 20:21	Tara L Snyder	1
06969	Tin	SW-846 6010C	1	131070637001	04/21/2013 20:21	Tara L Snyder	1
06970	Titanium	SW-846 6010C	1	131070637001	04/21/2013 20:21	Tara L Snyder	1
06971	Vanadium	SW-846 6010C	1	131070637001	04/21/2013 20:21	Tara L Snyder	1
06972	Zinc	SW-846 6010C	1	131070637001	04/21/2013 20:21	Tara L Snyder	1
10146	Zirconium	SW-846 6010C	1	131070637001	04/21/2013 20:21	Tara L Snyder	1

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

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Analysis Report

Sample Description: SL-521-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7023140
LLI Group # 1383064
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/15/2013 14:15 by SM

Submitted: 04/16/2013 09:15
Reported: 04/26/2013 11:10

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

52100 SDG#: PH031-06*

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06141	Selenium	SW-846 6020A	1	131070637001B	04/21/2013 02:25	David K Beck	2
06142	Silver	SW-846 6020A	1	131070637001A	04/21/2013 02:25	David K Beck	2
06144	Strontium	SW-846 6020A	1	131070637001A	04/21/2013 02:25	David K Beck	2
06145	Thallium	SW-846 6020A	1	131070637001A	04/21/2013 02:25	David K Beck	2
00159	3a Mercury 7471A	SW-846 7471B	1	131070638001	04/18/2013 08:29	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	131070637001	04/17/2013 23:35	Annamaria Stipkovits	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	131070638001	04/18/2013 02:45	Annamaria Stipkovits	1
00394	15a pH by 9045C	SW-846 9045D modified	1	13107039401B	04/17/2013 17:30	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13112162401A	04/23/2013 22:37	Scott W Freisher	1

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

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1383064
Reported: 04/26/13 at 11:10 AM

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 13110SLA026	Sample number(s): 7023136-7023140									
Acenaphthene	1.7	U	1.7	0.67	ug/kg	90		69-114		
Acenaphthylene	1.7	U	1.7	0.33	ug/kg	97		71-113		
Anthracene	1.7	U	1.7	0.33	ug/kg	104		75-116		
Benzo(a)anthracene	1.7	U	1.7	0.67	ug/kg	103		76-115		
Benzo(a)pyrene	1.7	U	1.7	0.67	ug/kg	94		76-117		
Benzo(b)fluoranthene	1.7	U	1.7	0.67	ug/kg	103		77-129		
Benzo(e)pyrene	17	U	17.	3.3	ug/kg	85		70-130		
Benzo(g,h,i)perylene	1.7	U	1.7	0.67	ug/kg	98		64-120		
Benzo(k)fluoranthene	1.7	U	1.7	0.67	ug/kg	92		71-120		
Butylbenzylphthalate	18	U	18.	6.0	ug/kg	95		65-131		
Di-n-butylphthalate	18	U	18.	6.0	ug/kg	90		67-140		
Chrysene	1.7	U	1.7	0.33	ug/kg	102		78-111		
Dibenz(a,h)anthracene	1.7	U	1.7	0.67	ug/kg	97		65-124		
Diethylphthalate	18	U	18.	6.0	ug/kg	90		68-125		
Dimethylphthalate	18	U	18.	6.0	ug/kg	91		70-130		
Bis(2-Ethylhexyl)phthalate	18	U	18.	6.0	ug/kg	95		67-143		
Fluoranthene	1.7	U	1.7	0.67	ug/kg	95		68-119		
Fluorene	1.7	U	1.7	0.67	ug/kg	116		75-123		
Indeno(1,2,3-cd)pyrene	1.7	U	1.7	0.67	ug/kg	97		66-122		
1-Methylnaphthalene	1.7	U	1.7	0.67	ug/kg	105		74-113		
2-Methylnaphthalene	1.7	U	1.7	0.67	ug/kg	101		78-121		
Naphthalene	1.7	U	1.7	0.67	ug/kg	96		64-120		
N-Nitrosodimethylamine	1.7	U	1.7	0.67	ug/kg	121		30-125		
Di-n-octylphthalate	18	U	18.	6.0	ug/kg	88		57-133		
Phenanthrene	1.7	U	1.7	0.67	ug/kg	105		72-110		
Pyrene	1.7	U	1.7	0.67	ug/kg	101		71-120		
Batch number: 13106A16A	Sample number(s): 7023136									
11a TPH by EPA 8015B GRO	1.0	U	1.0	0.2	mg/kg	90		67-119		
Batch number: 13106A20B	Sample number(s): 7023135									
TPH-GRO S.CA water C5-C12	50	U	50.	20	ug/l	99	98	75-135	2	30
Batch number: 131080012A	Sample number(s): 7023139-7023140									
Aldrin	0.83	U	0.83	0.17	ug/kg	80		73-119		
Alpha BHC	0.83	U	0.83	0.17	ug/kg	86		72-126		
Beta BHC	1.9	U	1.9	0.96	ug/kg	84		76-123		
Gamma BHC - Lindane	0.83	U	0.83	0.17	ug/kg	87		72-128		
Chlordane	17	U	17.	4.0	ug/kg					
p,p-DDD	1.7	U	1.7	0.33	ug/kg	87		76-138		
p,p-DDE	1.7	U	1.7	0.33	ug/kg	90		76-126		
p,p-DDT	1.7	U	1.7	0.35	ug/kg	87		72-131		
Delta BHC	0.83	U	0.83	0.45	ug/kg	87		73-128		

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1383064
Reported: 04/26/13 at 11:10 AM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Dieldrin	1.7	U	1.7	0.33	ug/kg	88		78-135		
Endosulfan I	0.83	U	0.83	0.22	ug/kg	87		62-125		
Endosulfan II	1.7	U	1.7	0.33	ug/kg	84		68-128		
Endosulfan Sulfate	1.7	U	1.7	0.33	ug/kg	81		72-138		
Endrin	1.7	U	1.7	0.33	ug/kg	87		75-130		
Endrin Aldehyde	1.7	U	1.7	0.33	ug/kg	74		55-132		
Endrin Ketone	1.8	U	1.8	0.60	ug/kg	77		74-127		
Heptachlor	0.83	U	0.83	0.17	ug/kg	83		69-125		
Heptachlor Epoxide	0.83	U	0.83	0.17	ug/kg	85		78-125		
Methoxychlor	6.7	U	6.7	1.7	ug/kg	90		59-125		
Mirex	1.7	U	1.7	0.35	ug/kg					
Toxaphene	33	U	33.	12	ug/kg					
Batch number: 131100011A	Sample number(s): 7023136-7023140									
Aroclor 5432	33	U	33.	10	ug/kg					
Aroclor 5442	33	U	33.	10	ug/kg	75	75	36-106	0	30
Aroclor 5460	33	U	33.	10	ug/kg					
PCB-1016	17	U	17.	3.3	ug/kg	103		80-120		
PCB-1221	17	U	17.	5.1	ug/kg					
PCB-1232	17	U	17.	4.1	ug/kg					
PCB-1242	17	U	17.	3.3	ug/kg					
PCB-1248	17	U	17.	3.3	ug/kg					
PCB-1254	17	U	17.	4.4	ug/kg					
PCB-1260	17	U	17.	3.9	ug/kg	115		72-120		
PCB-1262	17	U	17.	3.3	ug/kg					
PCB-1268	17	U	17.	3.3	ug/kg					
Batch number: 131090007A	Sample number(s): 7023136-7023140									
EFH (C12-C14)	5.0	U	5.0	2.0	mg/kg	89		70-123		
EFH (C15-C20)	5.0	U	5.0	2.0	mg/kg	91		75-128		
EFH (C21-C30)	5.0	U	5.0	2.0	mg/kg	92		64-134		
EFH (C30-C40)	10	U	10.	4.0	mg/kg	67		65-128		
EFH (C8-C11)	5.0	U	5.0	2.0	mg/kg	76		49-107		
Batch number: 131070637001	Sample number(s): 7023136-7023140									
Aluminum	40.0	U	40.0	7.71	mg/kg	99		80-120		
Antimony	4.00	U	4.00	0.500	mg/kg	101		80-120		
Arsenic	4.00	U	4.00	0.330	mg/kg	109		80-120		
Barium	1.00	U	1.00	0.0330	mg/kg	104		80-120		
Beryllium	1.00	U	1.00	0.0670	mg/kg	102		80-120		
Boron	10.0	U	10.0	0.830	mg/kg	96		80-120		
Cadmium	1.00	U	1.00	0.0330	mg/kg	106		80-120		
Calcium	20.0	U	20.0	4.02	mg/kg	101		80-120		
Chromium	3.00	U	3.00	0.0880	mg/kg	100		80-120		
Cobalt	1.00	U	1.00	0.0900	mg/kg	106		80-120		
Copper	2.00	U	2.00	0.180	mg/kg	103		80-120		
Iron	40.0	U	40.0	3.80	mg/kg	103		80-120		
Lead	3.00	U	3.00	0.470	mg/kg	106		80-120		
Lithium	4.0	U	4.0	0.55	mg/kg	103		80-120		
Magnesium	1.82	J	10.0	1.73	mg/kg	99		80-120		
Manganese	1.00	U	1.00	0.0830	mg/kg	104		80-120		
Molybdenum	2.00	U	2.00	0.170	mg/kg	100		80-120		
Nickel	2.00	U	2.00	0.110	mg/kg	107		80-120		
Phosphorus	10.9		10.0	0.510	mg/kg	116		80-120		
Potassium	100 U		100.	13.5	mg/kg	101		80-120		

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1383064
Reported: 04/26/13 at 11:10 AM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Sodium	100		100.	16.7	mg/kg	99		80-120		
	U									
Tin	1.40	J	10.0	0.220	mg/kg	101		80-120		
Titanium	1.00	U	1.00	0.170	mg/kg	102		80-120		
Vanadium	1.00	U	1.00	0.110	mg/kg	98		80-120		
Zinc	4.00	U	4.00	0.200	mg/kg	108		80-120		
Zirconium	5.00	U	5.00	0.830	mg/kg	101		80-120		
Batch number: 131070637001A	Sample number(s): 7023136-7023140									
Silver	0.200	U	0.200	0.0200	mg/kg	110		80-120		
Strontium	0.400	U	0.400	0.0340	mg/kg	111		80-120		
Thallium	0.200	U	0.200	0.0300	mg/kg	97		80-120		
Batch number: 131070637001B	Sample number(s): 7023136-7023140									
Selenium	0.400	U	0.400	0.100	mg/kg	117		80-120		
Batch number: 131070638001	Sample number(s): 7023136-7023140									
3a Mercury 7471A	0.0167	U	0.0167	0.0103	mg/kg	109		85-120		
Batch number: 13107039401A	Sample number(s): 7023136-7023138									
15a pH by 9045C						100		95-105		
Batch number: 13107039401B	Sample number(s): 7023139-7023140									
15a pH by 9045C						100		95-105		
Batch number: 13112162401A	Sample number(s): 7023136-7023140									
14a Moisture Content by 160.3						100		80-120		

Analysis Name	Blank Result		Blank MRL**	Blank EDL	Report Units	OPR %REC	OPRD %REC	OPR/OPRD Limits	RPD	RPD Max
Batch number: 13107001	Sample number(s): 7023136-7023140									
2378-TCDD	1.00	U	1.00	0.0192	ng/kg	90		67-158		
12378-PeCDD	0.0350	J	5.00	0.0205	ng/kg	94		70-142		
123478-HxCDD	0.0185	J	5.00	0.0151	ng/kg	99		70-164		
123678-HxCDD	0.0275	J	5.00	0.0157	ng/kg	95		76-134		
123789-HxCDD	0.0437	J	5.00	0.0155	ng/kg	98		64-162		
1234678-HpCDD	0.0818	J	5.00	0.0175	ng/kg	95		70-140		
OCDD	0.151	J	10.0	0.0174	ng/kg	97		78-144		
2378-TCDF	1.00	U	1.00	0.0177	ng/kg	96		75-158		
12378-PeCDF	0.0538	J	5.00	0.0111	ng/kg	96		80-134		
23478-PeCDF	0.0482	J	5.00	0.0112	ng/kg	98		68-160		
123478-HxCDF	0.0425	J	5.00	0.0107	ng/kg	100		72-134		
123678-HxCDF	0.0316	J	5.00	0.00978	ng/kg	95		84-130		
123789-HxCDF	0.0663	J	5.00	0.0122	ng/kg	98		78-130		
234678-HxCDF	0.0359	J	5.00	0.0103	ng/kg	98		70-156		
1234678-HpCDF	0.0623	J	5.00	0.00596	ng/kg	97		82-122		
1234789-HpCDF	0.0596	J	5.00	0.0104	ng/kg	98		78-138		
OCDF	0.164	J	10.0	0.0311	ng/kg	98		63-170		
TEQ WHO 2005 - EDLx0.0	0.0205				ng/kg					

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1383064
Reported: 04/26/13 at 11:10 AM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 13110SLA026	Sample number(s): 7023136-7023140 UNSPK: P022144								
Acenaphthene	97	92	48-127	5	30				
Acenaphthylene	104	96	49-121	7	30				
Anthracene	102	97	52-126	5	30				
Benzo(a)anthracene	108	93	32-135	15	30				
Benzo(a)pyrene	100	86	36-138	15	30				
Benzo(b)fluoranthene	109	88	26-142	20	30				
Benzo(e)pyrene	91	77	70-130	17	30				
Benzo(g,h,i)perylene	81	82	33-141	2	30				
Benzo(k)fluoranthene	103	90	47-129	13	30				
Butylbenzylphthalate	107	88	59-153	19	30				
Di-n-butylphthalate	88	79	62-154	10	30				
Chrysene	107	86	29-148	21	30				
Dibenz(a,h)anthracene	86	89	34-125	4	30				
Diethylphthalate	84	88	76-127	5	30				
Dimethylphthalate	93	88	62-136	6	30				
Bis(2-Ethylhexyl)phthalate	129	116	39-167	11	30				
Fluoranthene	100	72	47-135	30	30				
Fluorene	110	108	50-129	3	30				
Indeno(1,2,3-cd)pyrene	84	86	17-136	2	30				
1-Methylnaphthalene	102	98	50-131	4	30				
2-Methylnaphthalene	100	98	28-144	2	30				
Naphthalene	95	91	31-148	4	30				
N-Nitrosodimethylamine	85	108	48-113	23	30				
Di-n-octylphthalate	85	72	52-162	16	30				
Phenanthrene	115	99	29-142	15	30				
Pyrene	110	64	26-143	49*	30				
Batch number: 13106A16A	Sample number(s): 7023136 UNSPK: P022144								
11a TPH by EPA 8015B GRO	92	100	39-118	9	30				
Batch number: 131080012A	Sample number(s): 7023139-7023140 UNSPK: 7023139								
Aldrin	96	86	16-126	12	50				
Alpha BHC	88	87	14-140	1	50				
Beta BHC	86	85	10-173	0	50				
Gamma BHC - Lindane	89	89	30-137	1	50				
p,p-DDD	77	70	43-149	9	50				
p,p-DDE	90	91	18-161	1	50				
p,p-DDT	91	91	12-193	0	50				
Delta BHC	120	129	13-153	7	50				
Dieldrin	91	90	19-154	1	50				
Endosulfan I	0*	90	16-137	200*	50				
Endosulfan II	74	77	10-156	4	50				
Endosulfan Sulfate	86	86	10-181	0	50				
Endrin	102	70	30-152	36	50				
Endrin Aldehyde	85	86	10-152	1	35				
Endrin Ketone	54	55	10-160	3	50				
Heptachlor	95	98	16-152	3	50				

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1383064
Reported: 04/26/13 at 11:10 AM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Heptachlor Epoxide	87	85	17-167	3	50				
Methoxychlor	105	106	34-168	1	50				
Batch number: 131100011A	Sample number(s): 7023136-7023140 UNSPK: 7023137								
PCB-1016	94	93	16-146	1	50				
PCB-1260	99	99	40-134	1	50				
Batch number: 131090007A	Sample number(s): 7023136-7023140 UNSPK: 7023136								
EFH (C12-C14)	101	94	49-123	7	20				
EFH (C15-C20)	81	58	49-123	13	20				
EFH (C21-C30)	130*	52	49-123	28*	20				
EFH (C30-C40)	163*	98	49-123	19	20				
EFH (C8-C11)	88	88	49-123	0	20				
Batch number: 131070637001	Sample number(s): 7023136-7023140 UNSPK: P022144 BKG: P022144								
Aluminum	1359 (2)	1600 (2)	75-125	3	20	10,500	10,800	2	20
Antimony	70*	73*	75-125	4	20	1.54 J	1.48 J	4 (1)	20
Arsenic	111	108	75-125	2	20	2.01 J	2.79 J	32* (1)	20
Barium	105	100	75-125	3	20	70.2	68.6	2	20
Beryllium	99	99	75-125	1	20	0.469 J	0.472 J	1 (1)	20
Boron	94	95	75-125	0	20	3.12 J	3.00 J	4 (1)	20
Cadmium	105	104	75-125	1	20	0.409 J	0.437 J	7 (1)	20
Calcium	67 (2)	102 (2)	75-125	4	20	3,060	2,860	7	20
Chromium	103	118	75-125	8	20	18.0	17.9	1	20
Cobalt	101	100	75-125	1	20	4.98	4.86	3	20
Copper	101	101	75-125	0	20	5.00	5.12	2 (1)	20
Iron	1525 (2)	1576 (2)	75-125	0	20	18,500	19,000	3	20
Lead	106	104	75-125	1	20	5.00	5.37	7 (1)	20
Lithium	104	105	75-125	1	20	22.9	23.7	3	20
Magnesium	277 (2)	267 (2)	75-125	0	20	3,970	3,970	0	20
Manganese	107 (2)	104 (2)	75-125	0	20	275	269	2	20
Molybdenum	96	96	75-125	0	20	1.19 J	0.434 J	93* (1)	20
Nickel	100	99	75-125	1	20	8.44	8.47	0 (1)	20
Phosphorus	98	132*	75-125	7	20	357	368	3	20
Potassium	129*	124	75-125	1	20	2,680	2,750	2	20
Sodium	96	97	75-125	2	20	59.7 J	60.9 J	2 (1)	20
Tin	92	91	75-125	0	20	2.85 J	2.68 J	6 (1)	20
Titanium	243 (2)	230 (2)	75-125	1	20	1,030	1,050	2	20
Vanadium	100	99	75-125	1	20	28.1	28.2	0	20
Zinc	112	111	75-125	0	20	53.7	54.2	1	20
Zirconium	95	94	75-125	1	20	1.08 J	1.96 J	57* (1)	20
Batch number: 131070637001A	Sample number(s): 7023136-7023140 UNSPK: P022144 BKG: P022144								
Silver	100	101	75-125	1	20	0.0299 J	0.0323 J	8 (1)	20
Strontium	89	103	75-125	6	20	11.7	11.4	2	20
Thallium	105	98	75-125	5	20	0.226	0.220	3 (1)	20
Batch number: 131070637001B	Sample number(s): 7023136-7023140 UNSPK: P022144 BKG: P022144								
Selenium	116	111	75-125	4	20	0.385 U	0.385 U	0 (1)	20

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1383064
Reported: 04/26/13 at 11:10 AM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 131070638001	Sample number(s): 7023136-7023140 UNSPK: P022144 BKG: P022144								
3a Mercury 7471A	112	111	65-135	1	20	0.0197 U	0.0198 U	0 (1)	20
Batch number: 13107039401A	Sample number(s): 7023136-7023138 BKG: P022144								
15a pH by 9045C						7.71	7.69	0	3
Batch number: 13107039401B	Sample number(s): 7023139-7023140 BKG: 7023140								
15a pH by 9045C						6.85	6.87	0	3
Batch number: 13112162401A	Sample number(s): 7023136-7023140 BKG: P022144								
14a Moisture Content by 160.3						2.6	2.8	5	20

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 7a SVOC SIM EPA 8270D
Batch number: 13110SLA026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
7023136	73	89	97
7023137	68	91	98
7023138	61	86	97
7023139	78	84	97
7023140	67	90	98
Blank	83	91	96
LCS	82	91	101
MS	78	92	95
MSD	69	89	97
Limits:	54-129	61-134	55-129

Analysis Name: 11a TPH by EPA 8015B GRO
Batch number: 13106A16A

	Trifluorotoluene-F
7023136	76
Blank	89
LCS	84
MS	80
MSD	80
Limits:	61-122

Analysis Name: 11b TPH by EPA 8015B GRO
Batch number: 13106A20B

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1383064
Reported: 04/26/13 at 11:10 AM

Surrogate Quality Control

	Trifluorotoluene-F
7023135	87
Blank	88
LCS	110
LCSD	112
Limits:	63-135

Analysis Name: 20a Pesticides by EPA 8081B
Batch number: 131080012A

	Tetrachloro-m-xylene	Decachlorobiphenyl
7023139	91	109
7023140	88	94
Blank	92	97
LCS	91	102
MS	89	99
MSD	88	104
Limits:	50-130	20-120

Analysis Name: 19a PCBs and PCTs 8082A
Batch number: 131100011A

	Tetrachloro-m-xylene	Decachlorobiphenyl
7023136	116	96
7023137	122*	109
7023138	109	95
7023139	122*	102
7023140	116	98
Blank	129*	111
LCS	130*	120
LCSD	130*	122*
MS	122*	107
MSD	125*	108
Limits:	45-120	45-120

Analysis Name: 10a TPH by EPA 8015B (DRO)
Batch number: 131090007A

	Chlorobenzene	Orthoterphenyl
7023136	95	94
7023137	85	84
7023138	85	85
7023139	88	86
7023140	85	83
Blank	90	90
LCS	87	87
MS	88	86
MSD	83	82
Limits:	37-125	66-123

Analysis Name: 23a Dioxin/Furan by EPA 1613B

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1383064
Reported: 04/26/13 at 11:10 AM

Surrogate Quality Control

Batch number: 13107001

	13C12-2378-TCDD	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF	13C12-234678-HxCDF	13C12-123789-HxCDF
7023136	87	88	90	100	91	85
7023137	77	77	77	85	77	72
7023138	72	74	77	85	77	76
7023139	78	77	80	87	80	76
7023140	80	76	85	82	83	87
Blank	71	69	75	81	75	71
OPR	65	66	72	80	73	72
Limits:	25-164	21-178	26-152	26-123	28-136	29-147

	13C12-1234678-HpCDF	13C12-1234789-HpCDF	13C12-OCDF	13C12-12378-PeCDD	13C12-123478-HxCDD	13C12-123678-HxCDD
7023136	117	70	61	91	92	93
7023137	99	60	51	81	80	83
7023138	98	65	61	77	79	81
7023139	99	65	56	80	81	86
7023140	83	73	68	76	81	84
Blank	94	62	57	74	79	77
OPR	100	62	58	72	77	78
Limits:	28-143	26-138	17-157	25-181	32-141	28-130

	13C12-123789-HxCDD	13C12-1234678-HpCDD	13C12-OCDD	13C12-2378-TCDF	13C12-12378-PeCDF
7023136	91	92	86	80	94
7023137	83	78	71	69	82
7023138	85	78	77	67	80
7023139	88	79	75	73	83
7023140	84	77	75	73	76
Blank	77	75	72	63	73
OPR	77	79	79	59	73
Limits:	28-130	23-140	17-157	24-169	24-185

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

13013 1383064 7023135-40

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 4/15/2013
CarrierName: FedEx
AirbillNo: 7995 3119 4130

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20130415-01
Cooler #: 1
Lab: Lancaster
Lab Phone: 717-556-7259
Lab Address: 2425 New Holland Pike, Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Other Analysis/Notes
TB-041513	4/15/13 08:00	WQ	HCl	3 - 40 mL Vial	10 day																				X												
SL-534-SA7-SB-5.5-6.5	4/15/13 08:45	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-534-SA7-SB-5.5-6.5	4/15/13 08:45	SO	None	1 - 4 oz glass	10 day													X																			
SL-534-SA7-SB-5.5-6.5	4/15/13 08:45	SO	None	3 - Encore	10 day																				X												
SL-537-SA7-SB-0.0-0.5	4/15/13 09:50	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-537-SA7-SB-0.0-0.5	4/15/13 09:50	SO	None	1 - 4 oz glass	10 day													X																			
SL-538-SA7-SB-0.0-0.5	4/15/13 10:50	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-538-SA7-SB-0.0-0.5	4/15/13 10:50	SO	None	1 - 4 oz glass	10 day													X																			
SL-522-SA7-SB-0.0-0.5	4/15/13 13:30	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X							X				X											
SL-522-SA7-SB-0.0-0.5	4/15/13 13:30	SO	None	1 - 4 oz glass	10 day													X																			
SL-521-SA7-SB-0.0-0.5	4/15/13 14:15	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X							X				X											
SL-521-SA7-SB-0.0-0.5	4/15/13 14:15	SO	None	1 - 4 oz glass	10 day													X																			

Sampler: Steven Mercer

Special Instructions:

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
V. Gtz	4/15/13										
									Pat Gh	4/16/13	0915

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Environmental Sample Administration Receipt Documentation Log

1383064

Client/Project: CDM Smith

Date of Receipt: 4/16/13

Time of Receipt: 0915

Source Code: SO

Shipping Container Sealed: YES NO

Custody Seal Present * : YES NO

* Custody seal was intact unless otherwise noted in the discrepancy section

Package: Chilled Not Chilled

Temperature of Shipping Containers							
Cooler #	Thermometer ID	Temperature (°C)	Temp Bottle (TB) or Surface Temp (ST)	Wet Ice (WI) or Dry Ice (DI) or Ice Packs (IP)	Ice Present? Y/N	Loose (L) Bagged Ice (B) or NA	Comments
1	2737	1.4	TB	WI	Y	B	
2							
3							
4							
5							
6							

Number of Trip Blanks received NOT listed on chain of custody: Ø

Paperwork Discrepancy/Unpacking Problems:

Unpacker Signature/Emp#: Pat Gh 3472 **Date/Time:** 4/16/13 1021

Issued by Dept. 6042 Management

2174.06

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	**BMQL**	Below Minimum Quantitation Level
N.D.	none detected	**MPN**	Most Probable Number
TNTC	Too Numerous To Count	**CP Units**	cobalt-chloroplatinate units
IU	International Units	**NTU**	nephelometric turbidity units
umhos/cm	micromhos/cm	**ng**	nanogram(s)
C	degrees Celsius	**F**	degrees Fahrenheit
meq	milliequivalents	**lb.**	pound(s)
g	gram(s)	**kg**	kilogram(s)
µg	microgram(s)	**mg**	milligram(s)
mL	milliliter(s)	**L**	liter(s)
m3	cubic meter(s)	**µL**	microliter(s)
		pg/L	picogram/liter

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

J estimated value – The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	**B**	Value is <CRDL, but ≥IDL
B	Analyte was also detected in the blank	**E**	Estimated due to interference
C	Pesticide result confirmed by GC/MS	**M**	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	**N**	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	**S**	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	**U**	Compound was not detected
P	Concentration difference between primary and confirmation columns >25%	**W**	Post digestion spike out of control limits
U	Compound was not detected	*****	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	**+**	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as “analyze immediately” are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL LANCASTER LABORATORIES BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF LANCASTER LABORATORIES AND (B) WHETHER LANCASTER LABORATORIES HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Lancaster Laboratories which includes any conditions that vary from the Standard Terms and Conditions, and Lancaster hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

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

May 03, 2013

Project: Phase 3 Subarea 7

Submittal Date: 04/17/2013
Group Number: 1383412
SDG: PH032
PO Number: 1204-002-001-AL
State of Sample Origin: CA

Client Sample Description	Lancaster Labs (LLI) #
FB-041613 Water	7024683
SL-559-SA7-SB-0.0-0.5 Soil	7024684
SL-559-SA7-SB-2.0-3.0 Soil	7024685
SL-560-SA7-SB-0.0-0.5 Soil	7024686
SL-560-SA7-SB-3.0-4.0 Soil	7024687
SL-561-SA7-SB-0.0-0.5 Soil	7024688
TB-041613 Water	7024689
SL-558-SA7-SB-0.0-0.5 Soil	7024690

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

ELECTRONIC COPY TO	LLI	Attn: Nicole Maljovec
ELECTRONIC COPY TO	Eurofins Lancaster Labs	Attn: Natalie Luciano

Respectfully Submitted,

Nicole L. Maljovec
Principal Specialist Group Leader

(717) 556-7259

eurofins | Lancaster Laboratories

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Analysis Report

Sample Description: FB-041613 Water
SSFL Phase 3 Subarea 7

LLI Sample # WW 7024683
LLI Group # 1383412
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/16/2013 15:15 by SM

Submitted: 04/17/2013 09:30
Reported: 05/03/2013 10:18

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

559FB SDG#: PH032-01FB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Action Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/l		ug/l	ug/l	ug/l	
10335	Acetone	67-64-1	20	U	20	6		1
10335	Acrolein	107-02-8	100	U	100	40		1
10335	Acrylonitrile	107-13-1	20	U	20	4		1
10335	t-Amyl methyl ether	994-05-8	5	U	5	0.8		1
10335	Benzene	71-43-2	5	U	5	0.5		1
10335	Bromobenzene	108-86-1	5	U	5	1		1
10335	Bromochloromethane	74-97-5	5	U	5	1		1
10335	Bromodichloromethane	75-27-4	5	U	5	1		1
10335	Bromoform	75-25-2	5	U	5	1		1
10335	Bromomethane	74-83-9	5	U	5	1		1
10335	2-Butanone	78-93-3	10	U	10	3		1
10335	t-Butyl alcohol	75-65-0	50	U	50	10		1
10335	n-Butylbenzene	104-51-8	5	U	5	1		1
10335	sec-Butylbenzene	135-98-8	5	U	5	1		1
10335	tert-Butylbenzene	98-06-6	5	U	5	1		1
10335	Carbon Disulfide	75-15-0	5	U	5	1		1
10335	Carbon Tetrachloride	56-23-5	5	U	5	1		1
10335	Chlorobenzene	108-90-7	5	U	5	0.8		1
10335	Chloroethane	75-00-3	5	U	5	1		1
10335	2-Chloroethyl Vinyl Ether	110-75-8	10	U	10	2		1
	2-Chloroethyl vinyl ether may not be recovered if acid was used to preserve this sample.							
10335	Chloroform	67-66-3	3	J	5	0.8		1
10335	1-Chlorohexane	544-10-5	5	U	5	1		1
10335	Chloromethane	74-87-3	5	U	5	1		1
10335	2-Chlorotoluene	95-49-8	5	U	5	1		1
10335	4-Chlorotoluene	106-43-4	5	U	5	1		1
10335	Chlorotrifluoroethene	79-38-9	5	U	5	2		1
10335	1,2-Dibromo-3-chloropropane	96-12-8	5	U	5	2		1
10335	Dibromochloromethane	124-48-1	5	U	5	1		1
10335	1,2-Dibromoethane	106-93-4	5	U	5	1		1
10335	Dibromomethane	74-95-3	5	U	5	1		1
10335	1,2-Dichlorobenzene	95-50-1	5	U	5	1		1
10335	1,3-Dichlorobenzene	541-73-1	5	U	5	1		1
10335	1,4-Dichlorobenzene	106-46-7	5	U	5	1		1
10335	Dichlorodifluoromethane	75-71-8	5	U	5	2		1
10335	1,1-Dichloroethane	75-34-3	5	U	5	1		1
10335	1,2-Dichloroethane	107-06-2	5	U	5	1		1
10335	1,1-Dichloroethene	75-35-4	5	U	5	0.8		1
10335	cis-1,2-Dichloroethene	156-59-2	5	U	5	0.8		1
10335	trans-1,2-Dichloroethene	156-60-5	5	U	5	0.8		1
10335	1,2-Dichloropropane	78-87-5	5	U	5	1		1
10335	1,3-Dichloropropane	142-28-9	5	U	5	1		1
10335	2,2-Dichloropropane	594-20-7	5	U	5	1		1
10335	1,1-Dichloropropene	563-58-6	5	U	5	1		1
10335	cis-1,3-Dichloropropene	10061-01-5	5	U	5	1		1
10335	trans-1,3-Dichloropropene	10061-02-6	5	U	5	1		1
10335	Ethyl t-butyl ether	637-92-3	5	U	5	0.8		1
10335	Ethylbenzene	100-41-4	5	U	5	0.8		1
10335	Freon 113	76-13-1	5	U	5	2		1
10335	Freon 133a	75-88-7	5	U	5	2		1

*=This limit was used in the evaluation of the final result
Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: FB-041613 Water
SSFL Phase 3 Subarea 7

LLI Sample # WW 7024683
LLI Group # 1383412
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/16/2013 15:15 by SM

Submitted: 04/17/2013 09:30
Reported: 05/03/2013 10:18

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

559FB SDG#: PH032-01FB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Action Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**		**ug/l**	**ug/l**	**ug/l**	
10335	Hexachlorobutadiene	87-68-3	5	U	5	2		1
10335	2-Hexanone	591-78-6	10	U	10	3		1
10335	di-Isopropyl ether	108-20-3	5	U	5	0.8		1
10335	Isopropylbenzene	98-82-8	5	U	5	1		1
10335	p-Isopropyltoluene	99-87-6	5	U	5	1		1
10335	Methyl Iodide	74-88-4	5	U	5	1		1
10335	Methyl Tertiary Butyl Ether	1634-04-4	5	U	5	0.5		1
10335	4-Methyl-2-pentanone	108-10-1	10	U	10	3		1
10335	Methylene Chloride	75-09-2	18		5	2		1
10335	n-Propylbenzene	103-65-1	5	U	5	1		1
10335	Styrene	100-42-5	5	U	5	1		1
10335	1,1,1,2-Tetrachloroethane	630-20-6	5	U	5	1		1
10335	1,1,2,2-Tetrachloroethane	79-34-5	5	U	5	1		1
10335	Tetrachloroethene	127-18-4	5	U	5	0.8		1
10335	Toluene	108-88-3	5	U	5	0.7		1
10335	1,2,3-Trichlorobenzene	87-61-6	5	U	5	1		1
10335	1,2,4-Trichlorobenzene	120-82-1	5	U	5	1		1
10335	1,1,1-Trichloroethane	71-55-6	5	U	5	0.8		1
10335	1,1,2-Trichloroethane	79-00-5	5	U	5	0.8		1
10335	Trichloroethene	79-01-6	5	U	5	1		1
10335	Trichlorofluoromethane	75-69-4	5	U	5	2		1
10335	1,2,3-Trichloropropane	96-18-4	5	U	5	1		1
10335	1,2,4-Trimethylbenzene	95-63-6	5	U	5	1		1
10335	1,3,5-Trimethylbenzene	108-67-8	5	U	5	1		1
10335	Vinyl Acetate	108-05-4	10	U	10	2		1
10335	Vinyl Chloride	75-01-4	5	U	5	1		1
10335	m+p-Xylene	179601-23-1	5	U	5	0.8		1
10335	o-Xylene	95-47-6	5	U	5	0.8		1
GC/MS Volatiles	**SW-846 8260B SIM**		**ug/l**		**ug/l**	**ug/l**	**ug/l**	
00527	1,4-Dioxane	123-91-1	2.0	U	2.0	0.5		1
GC/MS Semivolatiles	**SW-846 8270D**		**ug/l**		**ug/l**	**ug/l**	**ug/l**	
10461	Acenaphthene	83-32-9	0.5	U	0.5	0.1		1
10461	Acenaphthylene	208-96-8	0.5	U	0.5	0.1		1
10461	Aniline	62-53-3	1	U	1	0.5		1
10461	Anthracene	120-12-7	0.5	U	0.5	0.1		1
10461	Benzidine	92-87-5	62	U	62	21		1
10461	Benzo(a)anthracene	56-55-3	0.5	U	0.5	0.1		1
10461	Benzo(a)pyrene	50-32-8	0.5	U	0.5	0.1		1
10461	Benzo(b)fluoranthene	205-99-2	0.5	U	0.5	0.1		1
10461	Benzo(g,h,i)perylene	191-24-2	0.5	U	0.5	0.1		1
10461	Benzo(k)fluoranthene	207-08-9	0.5	U	0.5	0.1		1
10461	Benzoic acid	65-85-0	16	U	16	6		1
10461	Benzyl alcohol	100-51-6	16	U	16	5		1
10461	1,1'-Biphenyl	92-52-4	1	U	1	0.5		1
10461	4-Bromophenyl-phenylether	101-55-3	1	U	1	0.5		1
10461	Butylbenzylphthalate	85-68-7	5	U	5	2		1
10461	Di-n-butylphthalate	84-74-2	5	U	5	2		1
10461	Carbazole	86-74-8	1	U	1	0.5		1

*=This limit was used in the evaluation of the final result
Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: FB-041613 Water
SSFL Phase 3 Subarea 7

LLI Sample # WW 7024683
LLI Group # 1383412
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/16/2013 15:15 by SM

Submitted: 04/17/2013 09:30
Reported: 05/03/2013 10:18

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

559FB SDG#: PH032-01FB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Action Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D**		**ug/l**		**ug/l**	**ug/l**	**ug/l**	
10461	4-Chloro-3-methylphenol	59-50-7	1	U	1	0.5		1
10461	4-Chloroaniline	106-47-8	1	U	1	0.5		1
10461	bis(2-Chloroethoxy)methane	111-91-1	1	U	1	0.5		1
10461	bis(2-Chloroethyl)ether	111-44-4	1	U	1	0.5		1
10461	bis(2-Chloroisopropyl)ether	39638-32-9	1	U	1	0.5		1
	Bis(2-chloroisopropyl) ether CAS #39638-32-9 and 2,2'-Oxybis(1-chloropropane) CAS #108-60-1 cannot be separated chromatographically. The reported result represents the combined total of both compounds.							
10461	2-Chloronaphthalene	91-58-7	1	U	1	0.4		1
10461	2-Chlorophenol	95-57-8	1	U	1	0.5		1
10461	4-Chlorophenyl-phenylether	7005-72-3	1	U	1	0.5		1
10461	Chrysene	218-01-9	0.5	U	0.5	0.1		1
10461	Dibenz(a,h)anthracene	53-70-3	0.5	U	0.5	0.1		1
10461	Dibenzofuran	132-64-9	1	U	1	0.5		1
10461	1,2-Dichlorobenzene	95-50-1	1	U	1	0.5		1
10461	1,3-Dichlorobenzene	541-73-1	1	U	1	0.5		1
10461	1,4-Dichlorobenzene	106-46-7	1	U	1	0.5		1
10461	3,3'-Dichlorobenzidine	91-94-1	5	U	5	2		1
10461	2,4-Dichlorophenol	120-83-2	1	U	1	0.5		1
10461	2,6-Dichlorophenol	87-65-0	1	U	1	0.5		1
10461	Diethylphthalate	84-66-2	5	U	5	2		1
10461	2,4-Dimethylphenol	105-67-9	1	U	1	0.5		1
10461	3,5-Dimethylphenol	108-68-9	10	U	10	3		1
10461	Dimethylphthalate	131-11-3	5	U	5	2		1
10461	4,6-Dinitro-2-methylphenol	534-52-1	16	U	16	5		1
10461	2,4-Dinitrophenol	51-28-5	31	U	31	10		1
10461	1,2-Diphenylhydrazine	122-66-7	1	U	1	0.5		1
10461	bis(2-Ethylhexyl)phthalate	117-81-7	5	U	5	2		1
10461	Fluoranthene	206-44-0	0.5	U	0.5	0.1		1
10461	Fluorene	86-73-7	0.5	U	0.5	0.1		1
10461	Hexachlorobenzene	118-74-1	0.5	U	0.5	0.1		1
10461	Hexachlorobutadiene	87-68-3	1	U	1	0.5		1
10461	Hexachlorocyclopentadiene	77-47-4	16	U	16	5		1
10461	Hexachloroethane	67-72-1	5	U	5	1		1
10461	Indeno(1,2,3-cd)pyrene	193-39-5	0.5	U	0.5	0.1		1
10461	Isophorone	78-59-1	1	U	1	0.5		1
10461	1-Methylnaphthalene	90-12-0	0.5	U	0.5	0.1		1
10461	2-Methylnaphthalene	91-57-6	0.5	U	0.5	0.1		1
10461	2-Methylphenol	95-48-7	1	U	1	0.5		1
10461	4-Methylphenol	106-44-5	1	U	1	0.5		1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.							
10461	Naphthalene	91-20-3	0.5	U	0.5	0.1		1
10461	NDPA as diphenylamine	n.a.	5	U	5	2		1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.							
10461	2-Nitroaniline	88-74-4	1	U	1	0.5		1
10461	3-Nitroaniline	99-09-2	1	U	1	0.5		1

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Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: FB-041613 Water
SSFL Phase 3 Subarea 7

LLI Sample # WW 7024683
LLI Group # 1383412
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/16/2013 15:15 by SM

Submitted: 04/17/2013 09:30
Reported: 05/03/2013 10:18

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

559FB SDG#: PH032-01FB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Action Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D**		**ug/l**		**ug/l**	**ug/l**	**ug/l**	
10461	4-Nitroaniline	100-01-6	1	U	1	0.5		1
10461	Nitrobenzene	98-95-3	1	U	1	0.5		1
10461	2-Nitrophenol	88-75-5	1	U	1	0.5		1
10461	4-Nitrophenol	100-02-7	31	U	31	10		1
10461	N-Nitrosodimethylamine	62-75-9	5	U	5	2		1
10461	N-Nitroso-di-n-propylamine	621-64-7	1	U	1	0.5		1
10461	N-Nitrosodiphenylamine	86-30-6	1	U	1	0.5		1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.							
10461	Di-n-octylphthalate	117-84-0	5	U	5	2		1
10461	Pentachlorophenol	87-86-5	5	U	5	1		1
10461	Phenanthrene	85-01-8	0.5	U	0.5	0.1		1
10461	Phenol	108-95-2	1	U	1	0.5		1
10461	Pyrene	129-00-0	0.5	U	0.5	0.1		1
10461	Pyridine	110-86-1	5	U	5	2		1
10461	1,2,4-Trichlorobenzene	120-82-1	1	U	1	0.5		1
10461	2,4,5-Trichlorophenol	95-95-4	1	U	1	0.5		1
10461	2,4,6-Trichlorophenol	88-06-2	1	U	1	0.5		1
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/l**		**ug/l**	**ug/l**	**ug/l**	
12971	Acenaphthene	83-32-9	0.052	U	0.052	0.010		1
12971	Acenaphthylene	208-96-8	0.052	U	0.052	0.010		1
12971	Anthracene	120-12-7	0.052	U	0.052	0.010		1
12971	Benzo(a)anthracene	56-55-3	0.052	U	0.052	0.010		1
12971	Benzo(a)pyrene	50-32-8	0.052	U	0.052	0.010		1
12971	Benzo(b)fluoranthene	205-99-2	0.052	U	0.052	0.010		1
12971	Benzo(e)pyrene	192-97-2	0.052	U	0.052	0.010		1
12971	Benzo(g,h,i)perylene	191-24-2	0.052	U	0.052	0.010		1
12971	Benzo(k)fluoranthene	207-08-9	0.052	U	0.052	0.010		1
12971	Butylbenzylphthalate	85-68-7	1.0	U	1.0	0.052		1
12971	Di-n-butylphthalate	84-74-2	0.11	J	1.0	0.052		1
12971	Chrysene	218-01-9	0.052	U	0.052	0.010		1
12971	Dibenz(a,h)anthracene	53-70-3	0.052	U	0.052	0.010		1
12971	Diethylphthalate	84-66-2	1.0	U	1.0	0.052		1
12971	Dimethylphthalate	131-11-3	1.0	U	1.0	0.052		1
12971	Bis(2-Ethylhexyl)phthalate	117-81-7	0.25	J	1.0	0.052		1
12971	Fluoranthene	206-44-0	0.052	U	0.052	0.010		1
12971	Fluorene	86-73-7	0.052	U	0.052	0.010		1
12971	Indeno(1,2,3-cd)pyrene	193-39-5	0.052	U	0.052	0.010		1
12971	1-Methylnaphthalene	90-12-0	0.052	U	0.052	0.010		1
12971	2-Methylnaphthalene	91-57-6	0.012	J	0.052	0.010		1
12971	Naphthalene	91-20-3	0.052	U	0.052	0.031		1
12971	N-Nitrosodimethylamine	62-75-9	0.052	U	0.052	0.010		1
12971	Di-n-octylphthalate	117-84-0	1.0	U	1.0	0.052		1
12971	Phenanthrene	85-01-8	0.052	U	0.052	0.031		1
12971	Pyrene	129-00-0	0.052	U	0.052	0.010		1

The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance:

*=This limit was used in the evaluation of the final result
Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: FB-041613 Water
SSFL Phase 3 Subarea 7

LLI Sample # WW 7024683
LLI Group # 1383412
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/16/2013 15:15 by SM

Submitted: 04/17/2013 09:30
Reported: 05/03/2013 10:18

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

559FB SDG#: PH032-01FB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Action Limit	Dilution Factor
	di-n-octylphthalate							

Target analytes were detected in the method blank associated with the samples as noted on the QC Summary. Since the result is within the acceptance range allowed by the method, the data is reported.

GC Volatiles	**TPH GRO SW-8015B**		**ug/l**		**ug/l**	**ug/l**	**ug/l**	
08229	TPH-GRO S.CA water C5-C12	n.a.	50	U	50	20		1
Explosives	**SW-846 8330A**		**ug/l**		**ug/l**	**ug/l**	**ug/l**	
10131	4-Amino-2,6-Dinitrotoluene	19406-51-0	0.60	U	0.60	0.30	10000000	1
10131	2-Amino-4,6-Dinitrotoluene	35572-78-2	0.60	U	0.60	0.20	10000000	1
10131	2,6-Diamino-4-nitrotoluene	59229-75-3	0.60	U	0.60	0.20	10000000	1
10131	2,4-Diamino-6-nitrotoluene	6629-29-4	0.60	U	0.60	0.20	10000000	1
10131	1,3-Dinitrobenzene	99-65-0	0.60	U	0.60	0.20	10000000	1
10131	2,4-Dinitrotoluene	121-14-2	0.60	U	0.60	0.20	10000000	1
10131	2,6-Dinitrotoluene	606-20-2	0.60	U	0.60	0.20	10000000	1
10131	HMX	2691-41-0	2.0	U	2.0	0.65	10000000	1
10131	Nitrobenzene	98-95-3	0.60	U	0.60	0.20	10000000	1
10131	Nitroglycerin	55-63-0	15	U	15	5.2	10000000	1
10131	2-Nitrotoluene	88-72-2	0.60	U	0.60	0.20	10000000	1
10131	3-Nitrotoluene	99-08-1	1.2	U	1.2	0.40	10000000	1
10131	4-Nitrotoluene	99-99-0	1.2	U	1.2	0.60	10000000	1
10131	PETN	78-11-5	18	U	18	6.0	10000000	1
10131	RDX	121-82-4	0.60	U	0.60	0.20	10000000	1
10131	Tetryl	479-45-8	0.60	U	0.60	0.40	10000000	1
10131	1,3,5-Trinitrobenzene	99-35-4	0.60	U	0.60	0.20	10000000	1
10131	2,4,6-Trinitrotoluene	118-96-7	0.60	U	0.60	0.20	10000000	1
Herbicides	**SW-846 8151A**		**ug/l**		**ug/l**	**ug/l**	**ug/l**	
10407	2,4-D	94-75-7	0.49	U	0.49	0.16		1
10407	Dalapon	75-99-0	1.2	U	1.2	0.25		1
10407	2,4-DB	94-82-6	0.98	U	0.98	0.29		1

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Sample Description: FB-041613 Water
SSFL Phase 3 Subarea 7

LLI Sample # WW 7024683
LLI Group # 1383412
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/16/2013 15:15 by SM

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

559FB SDG#: PH032-01FB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Action Limit	Dilution Factor
Herbicides	**SW-846 8151A**		**ug/l**		**ug/l**	**ug/l**	**ug/l**	
10407	Dicamba	1918-00-9	0.29	U	0.29	0.079		1
10407	Dinoseb	88-85-7	0.49	U	0.49	0.12		1
	The QC window for dinoseb is advisory due to the erratic performance of the analyte using this method.							
10407	2,4-DP (Dichlorprop)	120-36-5	0.49	U	0.49	0.16		1
10407	MCPA	94-74-6	200	U	200	49		1
10407	MCPP	93-65-2	200	U	200	49		1
10407	2,4,5-T	93-76-5	0.049	U	0.049	0.015		1
10407	2,4,5-TP	93-72-1	0.049	U	0.049	0.0098		1
	The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance: 2,4-DP							
HPLC Organics	**SW-846 8315A**		**ug/l**		**ug/l**	**ug/l**	**ug/l**	
04144	19b Formaldehyde 8315A	50-00-0	50	U	50	30		1
Perchlorate	**SW-846 6850 1/2007**		**ug/l**		**ug/l**	**ug/l**	**ug/l**	
06386	6b Perchlorate (Method 6850)	14797-73-0	1.0	U	1.0	0.20		1
Pesticides/PCBs	**SW-846 8081B**		**ug/l**		**ug/l**	**ug/l**	**ug/l**	
10589	Aldrin	309-00-2	0.0086	U	0.0086	0.0017		1
10589	Alpha BHC	319-84-6	0.0086	U	0.0086	0.0026		1
10589	Beta BHC	319-85-7	0.0086	U	0.0086	0.0029		1
10589	Gamma BHC - Lindane	58-89-9	0.0086	U	0.0086	0.0017		1
10589	Chlordane	57-74-9	0.43	U	0.43	0.14		1
10589	p,p-DDD	72-54-8	0.017	U	0.017	0.0043		1
10589	p,p-DDE	72-55-9	0.017	U	0.017	0.0043		1
10589	p,p-DDT	50-29-3	0.017	U	0.017	0.0045		1
10589	Delta BHC	319-86-8	0.0086	U	0.0086	0.0029		1
10589	Dieldrin	60-57-1	0.017	U	0.017	0.0046		1
10589	Endosulfan I	959-98-8	0.0086	U	0.0086	0.0037		1
10589	Endosulfan II	33213-65-9	0.017	U	0.017	0.013		1
10589	Endosulfan Sulfate	1031-07-8	0.017	U	0.017	0.0050		1
10589	Endrin	72-20-8	0.017	U	0.017	0.0070		1
10589	Endrin Aldehyde	7421-93-4	0.086	U	0.086	0.017		1
10589	Endrin Ketone	53494-70-5	0.017	U	0.017	0.0043		1
10589	Heptachlor	76-44-8	0.0086	U	0.0086	0.0017		1
10589	Heptachlor Epoxide	1024-57-3	0.0086	U	0.0086	0.0020		1
10589	Methoxychlor	72-43-5	0.086	U	0.086	0.026		1
10589	Mirex	2385-85-5	0.22	U	0.22	0.073		1
10589	Toxaphene	8001-35-2	2.6	U	2.6	0.86		1
Pesticides/PCBs	**SW-846 8082A**		**ug/l**		**ug/l**	**ug/l**	**ug/l**	
10591	Aroclor 5432	63496-31-1	0.43	U	0.43	0.086		1
10591	Aroclor 5442	12642-23-8	0.43	U	0.43	0.086		1
10591	Aroclor 5460	11126-42-4	0.43	U	0.43	0.086		1
10591	PCB-1016	12674-11-2	0.43	U	0.43	0.086		1
10591	PCB-1221	11104-28-2	0.43	U	0.43	0.086		1
10591	PCB-1232	11141-16-5	0.43	U	0.43	0.17		1

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Analysis Report

Sample Description: FB-041613 Water
SSFL Phase 3 Subarea 7

LLI Sample # WW 7024683
LLI Group # 1383412
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/16/2013 15:15 by SM

Submitted: 04/17/2013 09:30
Reported: 05/03/2013 10:18

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

559FB SDG#: PH032-01FB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Action Limit	Dilution Factor
Pesticides/PCBs	**SW-846 8082A**		**ug/l**		**ug/l**	**ug/l**	**ug/l**	
10591	PCB-1242	53469-21-9	0.43	U	0.43	0.086		1
10591	PCB-1248	12672-29-6	0.43	U	0.43	0.086		1
10591	PCB-1254	11097-69-1	0.43	U	0.43	0.086		1
10591	PCB-1260	11096-82-5	0.43	U	0.43	0.13		1
10591	PCB-1262	37324-23-5	0.43	U	0.43	0.17		1
10591	PCB-1268	11100-14-4	0.43	U	0.43	0.14		1
GC Miscellaneous	**SW-846 8015C**		**ug/l**		**ug/l**	**ug/l**	**ug/l**	
10603	Ethanol	64-17-5	1,000	U	1,000	200		1
10603	Isopropanol	67-63-0	1,000	U	1,000	200		1
10603	Methanol	67-56-1	1,000	U	1,000	200		1
GC Miscellaneous	**SW-846 8015C Feb 2007 Rev 3**		**mg/l**		**mg/l**	**mg/l**	**mg/l**	
12926	Diethylene glycol	111-46-6	10	U	10	8.0		1
12926	Ethylene glycol	107-21-1	10	U	10	8.0		1
12926	Propylene glycol	57-55-6	10	U	10	8.0		1
12926	Triethylene glycol	112-27-6	10	U	10	8.0		1
GC Petroleum Hydrocarbons	**SW-846 8015B**		**mg/l**		**mg/l**	**mg/l**	**mg/l**	
10319	m-Terphenyl	92-06-8	0.0049	U	0.0049	0.0020		1
10319	o-Terphenyl	84-15-1	0.0049	U	0.0049	0.0020		1
10319	p-Terphenyl	92-94-4	0.0049	U	0.0049	0.0020		1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/l**		**mg/l**	**mg/l**	**mg/l**	
10365	EFH (C12-C14)	n.a.	0.59	U	0.59	0.098		1
10365	EFH (C15-C20)	n.a.	0.59	U	0.59	0.098		1
10365	EFH (C21-C30)	n.a.	0.59	U	0.59	0.098		1
10365	EFH (C30 - C40)	n.a.	0.59	U	0.59	0.098		1
10365	EFH (C8-C11)	n.a.	0.59	U	0.59	0.098		1
	The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.							
Metals	**SW-846 6010C**		**mg/l**		**mg/l**	**mg/l**	**mg/l**	
01743	Aluminum	7429-90-5	0.400	U	0.400	0.0743		1
07044	Antimony	7440-36-0	0.0400	U	0.0400	0.0035		1
07035	Arsenic	7440-38-2	0.0400	U	0.0400	0.0068		1
07046	Barium	7440-39-3	0.0100	U	0.0100	0.00033		1
07047	Beryllium	7440-41-7	0.0100	U	0.0100	0.00067		1
08014	Boron	7440-42-8	0.100	U	0.100	0.0083		1
07049	Cadmium	7440-43-9	0.0100	U	0.0100	0.00036		1
01750	Calcium	7440-70-2	0.400	U	0.400	0.0640		1
07051	Chromium	7440-47-3	0.0300	U	0.0300	0.0011		1
07052	Cobalt	7440-48-4	0.0100	U	0.0100	0.00066		1
07053	Copper	7440-50-8	0.0200	U	0.0200	0.0021		1
01754	Iron	7439-89-6	0.400	U	0.400	0.0333		1
07055	Lead	7439-92-1	0.0300	U	0.0300	0.0051		1

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Analysis Report

Sample Description: FB-041613 Water
SSFL Phase 3 Subarea 7

LLI Sample # WW 7024683
LLI Group # 1383412
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/16/2013 15:15 by SM

Submitted: 04/17/2013 09:30
Reported: 05/03/2013 10:18

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

559FB SDG#: PH032-01FB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Limit of Quantitation*	As Received Method Detection Limit	Action Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/l**	**mg/l**	**mg/l**	**mg/l**	
01756	Lithium	7439-93-2	0.0400 U	0.0400	0.0060		1
01757	Magnesium	7439-95-4	0.200 U	0.200	0.0606		1
07058	Manganese	7439-96-5	0.0100 U	0.0100	0.00083		1
07060	Molybdenum	7439-98-7	0.0132 J	0.0200	0.0029		1
07061	Nickel	7440-02-0	0.0200 U	0.0200	0.0011		1
10143	Phosphorus	7723-14-0	0.200 U	0.200	0.0052		1
01762	Potassium	7440-09-7	1.00 U	1.00	0.145		1
01767	Sodium	7440-23-5	2.00 U	2.00	0.167		1
07069	Tin	7440-31-5	0.0029 J	0.0400	0.0022		1
07070	Titanium	7440-32-6	0.0200 U	0.0200	0.0017		1
07071	Vanadium	7440-62-2	0.0100 U	0.0100	0.0013		1
07072	Zinc	7440-66-6	0.0400 U	0.0400	0.0020		1
10144	Zirconium	7440-67-7	0.100 U	0.100	0.0092		1
	SW-846 6020A		**mg/l**	**mg/l**	**mg/l**	**mg/l**	
06041	Selenium	7782-49-2	0.0040 U	0.0040	0.00050		1
06042	Silver	7440-22-4	0.0010 U	0.0010	0.00010		1
06044	Strontium	7440-24-6	0.0020 U	0.0020	0.00022		1
06045	Thallium	7440-28-0	0.0010 U	0.0010	0.00015		1
	SW-846 7470A		**mg/l**	**mg/l**	**mg/l**	**mg/l**	
00259	3b Mercury 7470A	7439-97-6	0.00020 U	0.00020	0.000070		1
Wet Chemistry	**EPA 300.0**		**mg/l**	**mg/l**	**mg/l**	**mg/l**	
01505	1b Anions by 300.0-Bromide	24959-67-9	0.50 U	0.50	0.40		1
00224	1b Anions by 300.0-Chloride	16887-00-6	0.40 U	0.40	0.20		1
01504	1b Anions by 300.0-Fluoride	16984-48-8	0.10 U	0.10	0.080		1
00368	1b Anions by 300.0-Nitrate	14797-55-8	0.10 U	0.10	0.050		1
01506	1b Anions by 300.0-Nitrite	14797-65-0	0.10 U	0.10	0.080		1
07322	1b Anions by 300.0-Orthophosph	7723-14-0	0.50 U	0.50	0.20		1
00228	1b Anions by 300.0-Sulfate	14808-79-8	1.0 U	1.0	0.30		1
	SW-846 7199		**ug/l**	**ug/l**	**ug/l**	**ug/l**	
06467	2b Chromium VI by EPA 7199	18540-29-9	10.0 U	10.0	5.0		1
	SW-846 9012B		**mg/l**	**mg/l**	**mg/l**	**mg/l**	
08255	16b Cyanide by EPA 9012B	57-12-5	0.010 U	0.010	0.0050		1
	EPA 350.3		**mg/l**	**mg/l**	**mg/l**	**mg/l**	
12677	15b Ammonia by EPA 350.3	7664-41-7	0.20 U	0.20	0.050		1
	SW-846 9040C		**Std. Units**	**Std. Units**	**Std. Units**	**Std. Units**	
12152	28b. pH (9040B and 9040C)	n.a.	5.7	0.010	0.010		1

*=This limit was used in the evaluation of the final result
Shaded result = The results or reporting limit exceeded the client-provided action limit.

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Analysis Report

Sample Description: FB-041613 Water
SSFL Phase 3 Subarea 7

LLI Sample # WW 7024683
LLI Group # 1383412
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/16/2013 15:15 by SM

Submitted: 04/17/2013 09:30
Reported: 05/03/2013 10:18

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

559FB SDG#: PH032-01FB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received MRL*	As Received EDL	Action Limit	Dilution Factor
Dioxins/Furans	**EPA 1613B**		pg/l		pg/l	pg/l	pg/l	
10915	2378-TCDD	1746-01-6	1.94	U	1.94	0.217		1
10915	12378-PeCDD	40321-76-4	0.434	JBQ	9.71	0.301		1
10915	123478-HxCDD	39227-28-6	9.71	U	9.71	0.152		1
10915	123678-HxCDD	57653-85-7	9.71	U	9.71	0.155		1
10915	123789-HxCDD	19408-74-3	9.71	U	9.71	0.160		1
10915	1234678-HpCDD	35822-46-9	0.309	JBQ	9.71	0.184		1
10915	OCDD	3268-87-9	0.838	JBQ	19.4	0.311		1
10915	2378-TCDF	51207-31-9	1.94	U	1.94	0.184		1
10915	12378-PeCDF	57117-41-6	0.324	JB	9.71	0.160		1
10915	23478-PeCDF	57117-31-4	0.429	JBQ	9.71	0.144		1
10915	123478-HxCDF	70648-26-9	0.257	J	9.71	0.103		1
10915	123678-HxCDF	57117-44-9	9.71	U	9.71	0.106		1
10915	123789-HxCDF	72918-21-9	0.241	JBQ	9.71	0.111		1
10915	234678-HxCDF	60851-34-5	0.284	JBQ	9.71	0.101		1
10915	1234678-HpCDF	67562-39-4	0.314	JBQ	9.71	0.0861		1
10915	1234789-HpCDF	55673-89-7	9.71	U	9.71	0.0961		1
10915	OCDF	39001-02-0	0.357	JBQ	19.4	0.257		1
Toxic Equivalents	**EPA 1613B**		pg/l		pg/l	pg/l	pg/l	
10915	TEQ WHO 2005 - EDLx0.0	n.a.	0.0354					1

Labeled Compounds	**%Rec**	**Windows**
13C12-2378-TCDD	67	25 - 164
13C12-12378-PeCDD	76	25 - 181
13C12-123478-HxCDD	76	32 - 141
13C12-123678-HxCDD	77	28 - 130
13C12-123789-HxCDD	76	28 - 130
13C12-1234678-HpCDD	77	23 - 140
13C12-OCDD	80	17 - 157
13C12-2378-TCDF	65	24 - 169
13C12-12378-PeCDF	71	24 - 185
13C12-23478-PeCDF	72	21 - 178
13C12-123478-HxCDF	71	26 - 152
13C12-123678-HxCDF	69	26 - 123
13C12-234678-HxCDF	71	28 - 136
13C12-123789-HxCDF	70	29 - 147
13C12-1234678-HpCDF	69	28 - 143
13C12-1234789-HpCDF	71	26 - 138
13C12-OCDF	72	17 - 157

Dioxins/Furans Data Qualifiers:

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

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Analysis Report

Sample Description: FB-041613 Water
SSFL Phase 3 Subarea 7

LLI Sample # WW 7024683
LLI Group # 1383412
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/16/2013 15:15 by SM

Submitted: 04/17/2013 09:30
Reported: 05/03/2013 10:18

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

559FB SDG#: PH032-01FB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received MRL*	As Received EDL	Action Limit	Dilution Factor

F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result
Shaded result = The results or reporting limit exceeded the client-provided action limit.

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Analysis Report

Sample Description: FB-041613 Water
SSFL Phase 3 Subarea 7

LLI Sample # WW 7024683
LLI Group # 1383412
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/16/2013 15:15 by SM

Submitted: 04/17/2013 09:30
Reported: 05/03/2013 10:18

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

559FB SDG#: PH032-01FB

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10335	12b Volatile Organics EPA8260B	SW-846 8260B	1	Y131141AA	04/24/2013 12:59	Angela D Sneeringer	1
00527	13b 1,4-Dioxane by 8260B SIM	SW-846 8260B SIM	1	E131111AA	04/21/2013 19:42	Sara E Johnson	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	E131111AA	04/21/2013 19:42	Sara E Johnson	1
01163	GC/MS VOA Water Prep	SW-846 5030B	2	Y131141AA	04/24/2013 12:59	Angela D Sneeringer	1
10461	8b SVOCs by EPA 8270D	SW-846 8270D	1	13107WAI026	04/23/2013 19:15	Chad A Moline	1
12971	7b SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13107WAH026	04/28/2013 23:47	Holly Berry	1
10466	BNA Water Extraction SIM	SW-846 3510C	1	13107WAH026	04/18/2013 01:30	Karen L Beyer	1
11010	8270D BNA Extraction	SW-846 3510C	1	13107WAI026	04/18/2013 01:30	Karen L Beyer	1
08229	11b TPH by EPA 8015B GRO	TPH GRO SW-8015B	1	13108B20A	04/19/2013 13:32	Catherine J Schwarz	1
01146	GC VOA Water Prep	SW-846 5030B	1	13108B20A	04/19/2013 13:32	Catherine J Schwarz	1
10131	18b Energetics by 8330A	SW-846 8330A	1	131120017A	04/26/2013 11:01	James H Place	1
04144	19b Formaldehyde 8315A	SW-846 8315A	1	131080014A	04/19/2013 17:32	James H Place	1
10407	24b Herbicides by EPA 8151A	SW-846 8151A	1	131120003A	04/23/2013 18:54	Matthew S Listner	1
06386	6b Perchlorate (Method 6850)	SW-846 6850 1/2007	1	131130024A	04/25/2013 21:05	Richard A Shober	1
10589	22b Pesticides by EPA 8081B	SW-846 8081B	1	131120022A	04/24/2013 11:51	Jamie L Brillhart	1
10591	21b PCBs and PCTs 8082A	SW-846 8082A	1	131120021A	04/24/2013 02:19	Monica M Souders	1
11121	PCB Waters Update IV Ext	SW-846 3510C	1	131120021A	04/23/2013 10:00	William H Saadeh	1
11120	Pesticide Waters Update IV Ext	SW-846 3510C	1	131120022A	04/23/2013 10:00	William H Saadeh	1
00816	Water Sample Herbicide Extract	SW-846 8151A	1	131120003A	04/22/2013 14:30	Seth A Farrier	1
01013	Formaldehyde Extraction	SW-846 8315A	1	131080014A	04/19/2013 09:15	Denise L Trimby	1
11122	Energetics Extraction	SW-846 8330	1	131120017A	04/23/2013 15:30	Edwin Ortiz	1
10603	14b Alcohols by EPA 8015C	SW-846 8015C	1	131140019A	04/24/2013 17:58	Elizabeth J Marin	1
12926	20b Glycols by EPA 8015C	SW-846 8015C Feb 2007 Rev 3	1	131130028A	04/23/2013 23:11	Tyler O Griffin	1
10319	23b Terphenyls by 8015B	SW-846 8015B	1	131080007A	04/23/2013 20:37	Glorines Suarez-Rivera	1
10365	10b TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	131070015A	04/18/2013 15:22	Heather E Williams	1
11203	EFH Waters Extraction	SW-846 3510C	1	131070015A	04/17/2013 20:30	Karen L Beyer	1
10304	Terphenyls water prep	SW-846 3510C	1	131080007A	04/18/2013 16:30	Seth A Farrier	1

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Analysis Report

Sample Description: FB-041613 Water
SSFL Phase 3 Subarea 7

LLI Sample # WW 7024683
LLI Group # 1383412
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/16/2013 15:15 by SM

Submitted: 04/17/2013 09:30
Reported: 05/03/2013 10:18

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

559FB SDG#: PH032-01FB

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
10915	17b Dioxin/Furan by EPA 1613B	EPA 1613B	1	13112001	04/24/2013	03:30	Joseph D Anderson	1
10914	Dioxins/Furans in Water - SepF	EPA 1613B	1	13112001	04/22/2013	10:15	Ginelle L McQuaid	1
01743	Aluminum	SW-846 6010C	2	131140635001	04/26/2013	18:50	Katlin N Cataldi	1
07044	Antimony	SW-846 6010C	2	131140635001	04/26/2013	18:50	Katlin N Cataldi	1
07035	Arsenic	SW-846 6010C	2	131140635001	04/26/2013	18:50	Katlin N Cataldi	1
07046	Barium	SW-846 6010C	2	131140635001	04/26/2013	18:50	Katlin N Cataldi	1
07047	Beryllium	SW-846 6010C	2	131140635001	04/26/2013	18:50	Katlin N Cataldi	1
08014	Boron	SW-846 6010C	2	131140635001	04/26/2013	18:50	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010C	2	131140635001	04/26/2013	18:50	Katlin N Cataldi	1
01750	Calcium	SW-846 6010C	2	131140635001	04/26/2013	18:50	Katlin N Cataldi	1
07051	Chromium	SW-846 6010C	2	131140635001	04/26/2013	18:50	Katlin N Cataldi	1
07052	Cobalt	SW-846 6010C	2	131140635001	04/26/2013	18:50	Katlin N Cataldi	1
07053	Copper	SW-846 6010C	2	131140635001	04/26/2013	18:50	Katlin N Cataldi	1
01754	Iron	SW-846 6010C	2	131140635001	04/26/2013	18:50	Katlin N Cataldi	1
07055	Lead	SW-846 6010C	2	131140635001	04/26/2013	18:50	Katlin N Cataldi	1
01756	Lithium	SW-846 6010C	2	131140635001	04/26/2013	18:50	Katlin N Cataldi	1
01757	Magnesium	SW-846 6010C	2	131140635001	04/26/2013	18:50	Katlin N Cataldi	1
07058	Manganese	SW-846 6010C	2	131140635001	04/26/2013	18:50	Katlin N Cataldi	1
07060	Molybdenum	SW-846 6010C	2	131140635001	04/26/2013	18:50	Katlin N Cataldi	1
07061	Nickel	SW-846 6010C	2	131140635001	04/26/2013	18:50	Katlin N Cataldi	1
10143	Phosphorus	SW-846 6010C	2	131180635001	04/29/2013	18:30	Katlin N Cataldi	1
01762	Potassium	SW-846 6010C	2	131140635001	04/26/2013	18:50	Katlin N Cataldi	1
01767	Sodium	SW-846 6010C	2	131140635001	04/26/2013	18:50	Katlin N Cataldi	1
07069	Tin	SW-846 6010C	2	131140635001	04/26/2013	18:50	Katlin N Cataldi	1
07070	Titanium	SW-846 6010C	2	131140635001	04/26/2013	18:50	Katlin N Cataldi	1
07071	Vanadium	SW-846 6010C	2	131140635001	04/26/2013	18:50	Katlin N Cataldi	1
07072	Zinc	SW-846 6010C	2	131140635001	04/26/2013	18:50	Katlin N Cataldi	1
10144	Zirconium	SW-846 6010C	2	131140635001	04/26/2013	18:50	Katlin N Cataldi	1
06041	Selenium	SW-846 6020A	1	131080639002B	04/23/2013	22:26	David K Beck	1
06042	Silver	SW-846 6020A	1	131080639002A	04/23/2013	22:26	David K Beck	1
06044	Strontium	SW-846 6020A	1	131080639002A	04/23/2013	22:26	David K Beck	1
06045	Thallium	SW-846 6020A	1	131080639002A	04/23/2013	22:26	David K Beck	1
00259	3b Mercury 7470A	SW-846 7470A	1	131125713006	04/24/2013	08:11	Damary Valentin	1
10635	WW SW846(IV) ICP Dig (tot rec)	SW-846 3005A	1	131080635001	04/19/2013	10:15	James L Mertz	1
10635	WW SW846(IV) ICP Dig (tot rec)	SW-846 3005A	2	131140635001	04/24/2013	23:30	Annamaria Stipkovits	1
10635	WW SW846(IV) ICP Dig (tot rec)	SW-846 3005A	3	131180635001	04/29/2013	09:52	James L Mertz	1
10639	ICP/MS SW846 (IV) Water Digest	SW-846 3010A modified	1	131080639002	04/19/2013	10:15	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	131125713006	04/23/2013	15:20	Nelli S Markaryan	1
01505	1b Anions by 300.0-Bromide	EPA 300.0	1	13107655902A	04/17/2013	22:12	Christopher D Meeks	1
00224	1b Anions by 300.0-Chloride	EPA 300.0	1	13107655902A	04/17/2013	22:12	Christopher D Meeks	1
01504	1b Anions by 300.0-Fluoride	EPA 300.0	1	13107655902A	04/17/2013	22:12	Christopher D Meeks	1

*=This limit was used in the evaluation of the final result
Shaded result = The results or reporting limit exceeded the client-provided action limit.

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Analysis Report

Sample Description: FB-041613 Water
SSFL Phase 3 Subarea 7

LLI Sample # WW 7024683
LLI Group # 1383412
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/16/2013 15:15 by SM

Submitted: 04/17/2013 09:30
Reported: 05/03/2013 10:18

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

559FB SDG#: PH032-01FB

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00368	1b Anions by 300.0-Nitrate	EPA 300.0	1	13107655902A	04/17/2013 22:12	Christopher D Meeks	1
01506	1b Anions by 300.0-Nitrite	EPA 300.0	1	13107655902A	04/17/2013 22:12	Christopher D Meeks	1
07322	1b Anions by 300.0-Orthophosph	EPA 300.0	1	13107655902A	04/17/2013 22:12	Christopher D Meeks	1
00228	1b Anions by 300.0-Sulfate	EPA 300.0	1	13107655902A	04/17/2013 22:12	Christopher D Meeks	1
06467	2b Chromium VI by EPA 7199	SW-846 7199	1	13107495301B	04/17/2013 12:07	William L Hamaker Jr	1
08255	16b Cyanide by EPA 9012B	SW-846 9012B	1	13113117101A	04/24/2013 09:59	K Robert Caulfeild-James	1
08256	Cyanide Water Distillation	SW-846 9012B	1	13113117101A	04/23/2013 09:45	Nancy J Shoop	1
12677	15b Ammonia by EPA 350.3	EPA 350.3	1	13122003201A	05/02/2013 12:01	Kenneth A Bell	1
12152	28b. pH (9040B and 9040C)	SW-846 9040C	1	13107002101A	04/17/2013 21:22	Clayton C Litchmore	1

*=This limit was used in the evaluation of the final result
Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-559-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7024684
LLI Group # 1383412
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/16/2013 08:45 by SM

Submitted: 04/17/2013 09:30
Reported: 05/03/2013 10:18

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

55900 SDG#: PH032-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	17	U	17	6.8		10
12969	Acenaphthylene	208-96-8	17	U	17	3.4		10
12969	Anthracene	120-12-7	17	U	17	3.4		10
12969	Benzo(a)anthracene	56-55-3	17	U	17	6.8		10
12969	Benzo(a)pyrene	50-32-8	7.8	J	17	6.8		10
12969	Benzo(b)fluoranthene	205-99-2	18		17	6.8		10
12969	Benzo(e)pyrene	192-97-2	170	U	170	34		10
12969	Benzo(g,h,i)perylene	191-24-2	9.5	J	17	6.8		10
12969	Benzo(k)fluoranthene	207-08-9	17	U	17	6.8		10
12969	Butylbenzylphthalate	85-68-7	180	U	180	62		10
12969	Di-n-butylphthalate	84-74-2	180	U	180	62		10
12969	Chrysene	218-01-9	23		17	3.4		10
12969	Dibenz(a,h)anthracene	53-70-3	17	U	17	6.8		10
12969	Diethylphthalate	84-66-2	180	U	180	62		10
12969	Dimethylphthalate	131-11-3	180	U	180	62		10
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	180	U	180	62		10
12969	Fluoranthene	206-44-0	9.1	J	17	6.8		10
12969	Fluorene	86-73-7	17	U	17	6.8		10
12969	Indeno(1,2,3-cd)pyrene	193-39-5	17	U	17	6.8		10
12969	1-Methylnaphthalene	90-12-0	17	U	17	6.8		10
12969	2-Methylnaphthalene	91-57-6	17	U	17	6.8		10
12969	Naphthalene	91-20-3	17	U	17	6.8		10
12969	N-Nitrosodimethylamine	62-75-9	17	U	17	6.8		10
12969	Di-n-octylphthalate	117-84-0	180	U	180	62		10
12969	Phenanthrene	85-01-8	8.2	J	17	6.8		10
12969	Pyrene	129-00-0	11	J	17	6.8		10
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	**ug/kg**	
10592	Aroclor 5432	63496-31-1	34	U	34	10		1
10592	Aroclor 5442	12642-23-8	34	U	34	10		1
10592	Aroclor 5460	11126-42-4	17	J	34	10		1
10592	PCB-1016	12674-11-2	17	U	17	3.4		1
10592	PCB-1221	11104-28-2	17	U	17	5.2		1
10592	PCB-1232	11141-16-5	17	U	17	4.2		1
10592	PCB-1242	53469-21-9	17	U	17	3.4		1
10592	PCB-1248	12672-29-6	17	U	17	3.4		1
10592	PCB-1254	11097-69-1	13	J	17	4.5		1
10592	PCB-1260	11096-82-5	17	U	17	4.0		1
10592	PCB-1262	37324-23-5	17	U	17	3.4		1
10592	PCB-1268	11100-14-4	17	U	17	3.4		1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	100	U	100	41		20
12952	EFH (C15-C20)	n.a.	100	U	100	41		20
12952	EFH (C21-C30)	n.a.	140		100	41		20
12952	EFH (C30-C40)	n.a.	440		210	83		20
12952	EFH (C8-C11)	n.a.	100	U	100	41		20
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	

*=This limit was used in the evaluation of the final result
Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-559-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7024684
LLI Group # 1383412
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/16/2013 08:45 by SM

Submitted: 04/17/2013 09:30
Reported: 05/03/2013 10:18

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

55900 SDG#: PH032-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	15,500		40.1	7.73		1
06944	Antimony	7440-36-0	2.12	J	4.01	0.501		1
06935	Arsenic	7440-38-2	2.48	J	4.01	0.331		1
06946	Barium	7440-39-3	91.2		1.00	0.0331		1
06947	Beryllium	7440-41-7	0.650	J	1.00	0.0672		1
07914	Boron	7440-42-8	3.07	J	10.0	0.832		1
06949	Cadmium	7440-43-9	0.469	J	1.00	0.0331		1
01650	Calcium	7440-70-2	2,670		20.1	4.03		1
06951	Chromium	7440-47-3	20.2		3.01	0.0883		1
06952	Cobalt	7440-48-4	6.07		1.00	0.0903		1
06953	Copper	7440-50-8	8.86		2.01	0.181		1
01654	Iron	7439-89-6	21,500		40.1	3.81		1
06955	Lead	7439-92-1	10.2		3.01	0.471		1
01656	Lithium	7439-93-2	19.7		4.0	0.55		1
01657	Magnesium	7439-95-4	3,950		10.0	1.74		1
06958	Manganese	7439-96-5	288		1.00	0.0832		1
06960	Molybdenum	7439-98-7	0.327	J	2.01	0.171		1
06961	Nickel	7440-02-0	10.5		2.01	0.110		1
10145	Phosphorus	7723-14-0	412		10.0	0.512		1
01662	Potassium	7440-09-7	3,800		100	13.5		1
01667	Sodium	7440-23-5	82.6	J	100	16.7		1
06969	Tin	7440-31-5	2.89	J	10.0	0.221		1
06970	Titanium	7440-32-6	1,100		1.00	0.171		1
06971	Vanadium	7440-62-2	38.4		1.00	0.110		1
06972	Zinc	7440-66-6	59.0		4.01	0.201		1
10146	Zirconium	7440-67-7	1.39	J	5.01	0.832		1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.401	U	0.401	0.100		2
06142	Silver	7440-22-4	0.0648	J	0.201	0.0201		2
06144	Strontium	7440-24-6	18.9		0.401	0.0341		2
06145	Thallium	7440-28-0	0.263		0.201	0.0301		2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0200		0.0194	0.0100		1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	**Std. Units**	
00394	15a pH by 9045C	n.a.	6.48		0.0100	0.0100		1
	The pH was measured in water at 22.2 C.							
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	3.2		0.10	0.10		1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.							

*=This limit was used in the evaluation of the final result
Shaded result = The results or reporting limit exceeded the client-provided action limit.

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Analysis Report

Sample Description: SL-559-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7024684
LLI Group # 1383412
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/16/2013 08:45 by SM

Submitted: 04/17/2013 09:30
Reported: 05/03/2013 10:18

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

55900 SDG#: PH032-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Action Limit	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg		ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	1.02	U	1.02	0.0292		1
11031	12378-PeCDD	40321-76-4	0.713	JB	5.12	0.0589		1
11031	123478-HxCDD	39227-28-6	1.34	JB	5.12	0.0352		1
11031	123678-HxCDD	57653-85-7	3.90	JB	5.12	0.0353		1
11031	123789-HxCDD	19408-74-3	2.68	JB	5.12	0.0338		1
11031	1234678-HpCDD	35822-46-9	105	B	5.12	0.0718		1
11031	OCDD	3268-87-9	871	B	10.2	0.0626		1
11031	2378-TCDF	51207-31-9	0.318	J	1.02	0.0687		1
11031	12378-PeCDF	57117-41-6	1.09	JBQ	5.12	0.0350		1
11031	23478-PeCDF	57117-31-4	0.869	JB	5.12	0.0325		1
11031	123478-HxCDF	70648-26-9	0.794	JB	5.12	0.0351		1
11031	123678-HxCDF	57117-44-9	0.689	JB	5.12	0.0343		1
11031	123789-HxCDF	72918-21-9	0.351	JB	5.12	0.0367		1
11031	234678-HxCDF	60851-34-5	0.818	JB	5.12	0.0325		1
11031	1234678-HpCDF	67562-39-4	16.1	B	5.12	0.0344		1
11031	1234789-HpCDF	55673-89-7	1.13	JBQ	5.12	0.0458		1
11031	OCDF	39001-02-0	47.2	B	10.2	0.0434		1
Toxic Equivalents	**EPA 1613B**		ng/kg		ng/kg	ng/kg	ng/kg	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	3.55					1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	78	25 - 164
13C12-12378-PeCDD	77	25 - 181
13C12-123478-HxCDD	77	32 - 141
13C12-123678-HxCDD	81	28 - 130
13C12-123789-HxCDD	82	28 - 130
13C12-1234678-HpCDD	74	23 - 140
13C12-OCDD	68	17 - 157
13C12-2378-TCDF	76	24 - 169
13C12-12378-PeCDF	77	24 - 185
13C12-23478-PeCDF	77	21 - 178
13C12-123478-HxCDF	81	26 - 152
13C12-123678-HxCDF	81	26 - 123
13C12-234678-HxCDF	81	28 - 136
13C12-123789-HxCDF	80	29 - 147
13C12-1234678-HpCDF	80	28 - 143
13C12-1234789-HpCDF	68	26 - 138
13C12-OCDF	61	17 - 157

Dioxins/Furans Data Qualifiers:

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

*=This limit was used in the evaluation of the final result
Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-559-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7024684
LLI Group # 1383412
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/16/2013 08:45 by SM

Submitted: 04/17/2013 09:30
Reported: 05/03/2013 10:18

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

55900 SDG#: PH032-02

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

F Interference is present
S Saturation of detection signal

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

Sample Description: SL-559-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7024684
LLI Group # 1383412
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/16/2013 08:45 by SM

Submitted: 04/17/2013 09:30
Reported: 05/03/2013 10:18

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

55900 SDG#: PH032-02

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13110SLA026	04/25/2013	13:39	Mark A Clark	10
10811	BNA Soil Microwave SIM	SW-846 3546	1	13110SLA026	04/21/2013	07:00	Joseph S Feister	1
10592	19a PCBs and PCTs 8082A	SW-846 8082A	1	131100011A	04/23/2013	04:59	Jessica L Miller	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	131100011A	04/22/2013	08:00	Olivia Arosemena	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	131090007A	04/23/2013	11:00	Heather E Williams	20
12959	EFH soil ext.(microwave)	SW-846 3546	1	131090007A	04/19/2013	16:25	JoElla L Rice	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13107001	04/19/2013	00:17	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13107001	04/17/2013	13:00	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010C	1	131070637001	04/21/2013	20:25	Tara L Snyder	1
06944	Antimony	SW-846 6010C	1	131070637001	04/21/2013	20:25	Tara L Snyder	1
06935	Arsenic	SW-846 6010C	1	131070637001	04/21/2013	20:25	Tara L Snyder	1
06946	Barium	SW-846 6010C	1	131070637001	04/21/2013	20:25	Tara L Snyder	1
06947	Beryllium	SW-846 6010C	1	131070637001	04/21/2013	20:25	Tara L Snyder	1
07914	Boron	SW-846 6010C	1	131070637001	04/21/2013	20:25	Tara L Snyder	1
06949	Cadmium	SW-846 6010C	1	131070637001	04/21/2013	20:25	Tara L Snyder	1
01650	Calcium	SW-846 6010C	1	131070637001	04/21/2013	20:25	Tara L Snyder	1
06951	Chromium	SW-846 6010C	1	131070637001	04/21/2013	20:25	Tara L Snyder	1
06952	Cobalt	SW-846 6010C	1	131070637001	04/21/2013	20:25	Tara L Snyder	1
06953	Copper	SW-846 6010C	1	131070637001	04/21/2013	20:25	Tara L Snyder	1
01654	Iron	SW-846 6010C	1	131070637001	04/21/2013	20:25	Tara L Snyder	1
06955	Lead	SW-846 6010C	1	131070637001	04/21/2013	20:25	Tara L Snyder	1
01656	Lithium	SW-846 6010C	1	131070637001	04/21/2013	20:25	Tara L Snyder	1
01657	Magnesium	SW-846 6010C	1	131070637001	04/21/2013	20:25	Tara L Snyder	1
06958	Manganese	SW-846 6010C	1	131070637001	04/21/2013	20:25	Tara L Snyder	1
06960	Molybdenum	SW-846 6010C	1	131070637001	04/21/2013	20:25	Tara L Snyder	1
06961	Nickel	SW-846 6010C	1	131070637001	04/21/2013	20:25	Tara L Snyder	1
10145	Phosphorus	SW-846 6010C	1	131070637001	04/21/2013	20:25	Tara L Snyder	1
01662	Potassium	SW-846 6010C	1	131070637001	04/21/2013	20:25	Tara L Snyder	1
01667	Sodium	SW-846 6010C	1	131070637001	04/21/2013	20:25	Tara L Snyder	1
06969	Tin	SW-846 6010C	1	131070637001	04/21/2013	20:25	Tara L Snyder	1
06970	Titanium	SW-846 6010C	1	131070637001	04/21/2013	20:25	Tara L Snyder	1
06971	Vanadium	SW-846 6010C	1	131070637001	04/21/2013	20:25	Tara L Snyder	1
06972	Zinc	SW-846 6010C	1	131070637001	04/21/2013	20:25	Tara L Snyder	1
10146	Zirconium	SW-846 6010C	1	131070637001	04/21/2013	20:25	Tara L Snyder	1
06141	Selenium	SW-846 6020A	1	131070637001B	04/21/2013	02:27	David K Beck	2
06142	Silver	SW-846 6020A	1	131070637001A	04/21/2013	02:27	David K Beck	2
06144	Strontium	SW-846 6020A	1	131070637001A	04/21/2013	02:27	David K Beck	2
06145	Thallium	SW-846 6020A	1	131070637001A	04/21/2013	02:27	David K Beck	2

*=This limit was used in the evaluation of the final result
Shaded result = The results or reporting limit exceeded the client-provided action limit.

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Analysis Report

Sample Description: SL-559-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7024684
LLI Group # 1383412
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/16/2013 08:45 by SM

Submitted: 04/17/2013 09:30
Reported: 05/03/2013 10:18

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

55900 SDG#: PH032-02

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00159	3a Mercury 7471A	SW-846 7471B	1	131070638001	04/18/2013 08:31	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	131070637001	04/17/2013 23:35	Annamaria Stipkovits	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	131070638001	04/18/2013 02:45	Annamaria Stipkovits	1
00394	15a pH by 9045C	SW-846 9045D modified	1	13107039401B	04/17/2013 17:30	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13112162401B	04/23/2013 22:37	Scott W Freisher	1

*=This limit was used in the evaluation of the final result
Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-559-SA7-SB-2.0-3.0 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7024685
LLI Group # 1383412
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/16/2013 09:25 by SM

Submitted: 04/17/2013 09:30
Reported: 05/03/2013 10:18

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

55902 SDG#: PH032-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	7.8	J	17	7.0		10
12969	Acenaphthylene	208-96-8	9.2	J	17	3.5		10
12969	Anthracene	120-12-7	17	U	17	3.5		10
12969	Benzo(a)anthracene	56-55-3	17	U	17	7.0		10
12969	Benzo(a)pyrene	50-32-8	17	U	17	7.0		10
12969	Benzo(b)fluoranthene	205-99-2	17	U	17	7.0		10
12969	Benzo(e)pyrene	192-97-2	180	U	180	35		10
12969	Benzo(g,h,i)perylene	191-24-2	17	U	17	7.0		10
12969	Benzo(k)fluoranthene	207-08-9	17	U	17	7.0		10
12969	Butylbenzylphthalate	85-68-7	190	U	190	63		10
12969	Di-n-butylphthalate	84-74-2	190	U	190	63		10
12969	Chrysene	218-01-9	14	J	17	3.5		10
12969	Dibenz(a,h)anthracene	53-70-3	17	U	17	7.0		10
12969	Diethylphthalate	84-66-2	190	U	190	63		10
12969	Dimethylphthalate	131-11-3	190	U	190	63		10
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	78	J	190	63		10
12969	Fluoranthene	206-44-0	17	U	17	7.0		10
12969	Fluorene	86-73-7	28		17	7.0		10
12969	Indeno(1,2,3-cd)pyrene	193-39-5	17	U	17	7.0		10
12969	1-Methylnaphthalene	90-12-0	560		17	7.0		10
12969	2-Methylnaphthalene	91-57-6	690		17	7.0		10
12969	Naphthalene	91-20-3	200		17	7.0		10
12969	N-Nitrosodimethylamine	62-75-9	17	U	17	7.0		10
12969	Di-n-octylphthalate	117-84-0	190	U	190	63		10
12969	Phenanthrene	85-01-8	16	J	17	7.0		10
12969	Pyrene	129-00-0	17	U	17	7.0		10
GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	1.1	U	1.1	0.2		26.6
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	**ug/kg**	
10592	Aroclor 5432	63496-31-1	34	U	34	10		1
10592	Aroclor 5442	12642-23-8	34	U	34	10		1
10592	Aroclor 5460	11126-42-4	15	J	34	10		1
10592	PCB-1016	12674-11-2	18	U	18	3.4		1
10592	PCB-1221	11104-28-2	18	U	18	5.3		1
10592	PCB-1232	11141-16-5	18	U	18	4.2		1
10592	PCB-1242	53469-21-9	18	U	18	3.4		1
10592	PCB-1248	12672-29-6	18	U	18	3.4		1
10592	PCB-1254	11097-69-1	12	J	18	4.6		1
10592	PCB-1260	11096-82-5	18	U	18	4.0		1
10592	PCB-1262	37324-23-5	18	U	18	3.4		1
10592	PCB-1268	11100-14-4	18	U	18	3.4		1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	110	U	110	42		20
12952	EFH (C15-C20)	n.a.	110	U	110	42		20

*=This limit was used in the evaluation of the final result
Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-559-SA7-SB-2.0-3.0 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7024685
LLI Group # 1383412
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/16/2013 09:25 by SM

Submitted: 04/17/2013 09:30
Reported: 05/03/2013 10:18

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

55902 SDG#: PH032-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
12952	EFH (C21-C30)	n.a.	84	J	110	42		20
12952	EFH (C30-C40)	n.a.	420		210	84		20
12952	EFH (C8-C11)	n.a.	110	U	110	42		20
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	15,600		41.3	7.96		1
06944	Antimony	7440-36-0	2.08	J	4.13	0.516		1
06935	Arsenic	7440-38-2	3.18	J	4.13	0.341		1
06946	Barium	7440-39-3	90.5		1.03	0.0341		1
06947	Beryllium	7440-41-7	0.673	J	1.03	0.0691		1
07914	Boron	7440-42-8	3.55	J	10.3	0.857		1
06949	Cadmium	7440-43-9	0.467	J	1.03	0.0341		1
01650	Calcium	7440-70-2	2,990		20.6	4.15		1
06951	Chromium	7440-47-3	21.3		3.10	0.0908		1
06952	Cobalt	7440-48-4	6.51		1.03	0.0929		1
06953	Copper	7440-50-8	7.90		2.06	0.186		1
01654	Iron	7439-89-6	21,200		41.3	3.92		1
06955	Lead	7439-92-1	10.0		3.10	0.485		1
01656	Lithium	7439-93-2	19.6		4.1	0.57		1
01657	Magnesium	7439-95-4	3,820		10.3	1.79		1
06958	Manganese	7439-96-5	328		1.03	0.0857		1
06960	Molybdenum	7439-98-7	0.397	J	2.06	0.175		1
06961	Nickel	7440-02-0	10.8		2.06	0.114		1
10145	Phosphorus	7723-14-0	363		10.3	0.526		1
01662	Potassium	7440-09-7	2,920		103	13.9		1
01667	Sodium	7440-23-5	82.0	J	103	17.2		1
06969	Tin	7440-31-5	2.50	J	10.3	0.227		1
06970	Titanium	7440-32-6	1,080		1.03	0.175		1
06971	Vanadium	7440-62-2	36.0		1.03	0.114		1
06972	Zinc	7440-66-6	53.9		4.13	0.206		1
10146	Zirconium	7440-67-7	1.37	J	5.16	0.857		1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.413	U	0.413	0.103		2
06142	Silver	7440-22-4	0.0625	J	0.206	0.0206		2
06144	Strontium	7440-24-6	19.7		0.413	0.0351		2
06145	Thallium	7440-28-0	0.273		0.206	0.0310		2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0172	J	0.0208	0.0107		1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	**Std. Units**	
00394	15a pH by 9045C	n.a.	7.87		0.0100	0.0100		1
	The pH was measured in water at 22.1 C.							
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	5.0		0.10	0.10		1

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

Sample Description: SL-559-SA7-SB-2.0-3.0 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7024685
LLI Group # 1383412
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/16/2013 09:25 by SM

Submitted: 04/17/2013 09:30
Reported: 05/03/2013 10:18

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

55902 SDG#: PH032-03

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

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

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

Sample Description: SL-559-SA7-SB-2.0-3.0 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7024685
LLI Group # 1383412
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/16/2013 09:25 by SM

Submitted: 04/17/2013 09:30
Reported: 05/03/2013 10:18

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

55902 SDG#: PH032-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Action Limit	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg		ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	1.04	U	1.04	0.0238		1
11031	12378-PeCDD	40321-76-4	0.255	JBQ	5.18	0.0333		1
11031	123478-HxCDD	39227-28-6	0.462	JB	5.18	0.0381		1
11031	123678-HxCDD	57653-85-7	1.49	JB	5.18	0.0375		1
11031	123789-HxCDD	19408-74-3	1.07	JBQ	5.18	0.0364		1
11031	1234678-HpCDD	35822-46-9	40.5	B	5.18	0.0456		1
11031	OCDD	3268-87-9	368	B	10.4	0.0432		1
11031	2378-TCDF	51207-31-9	0.0699	JQ	1.04	0.0525		1
11031	12378-PeCDF	57117-41-6	1.08	JB	5.18	0.0280		1
11031	23478-PeCDF	57117-31-4	0.452	JB	5.18	0.0270		1
11031	123478-HxCDF	70648-26-9	0.399	JB	5.18	0.0313		1
11031	123678-HxCDF	57117-44-9	0.368	JBQ	5.18	0.0306		1
11031	123789-HxCDF	72918-21-9	0.235	JB	5.18	0.0330		1
11031	234678-HxCDF	60851-34-5	0.361	JB	5.18	0.0291		1
11031	1234678-HpCDF	67562-39-4	5.91	B	5.18	0.0243		1
11031	1234789-HpCDF	55673-89-7	0.479	JB	5.18	0.0305		1
11031	OCDF	39001-02-0	18.4	B	10.4	0.0325		1
Toxic Equivalents	**EPA 1613B**		ng/kg		ng/kg	ng/kg	ng/kg	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	1.05					1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	81	25 - 164
13C12-12378-PeCDD	77	25 - 181
13C12-123478-HxCDD	78	32 - 141
13C12-123678-HxCDD	81	28 - 130
13C12-123789-HxCDD	80	28 - 130
13C12-1234678-HpCDD	76	23 - 140
13C12-OCDD	72	17 - 157
13C12-2378-TCDF	76	24 - 169
13C12-12378-PeCDF	79	24 - 185
13C12-23478-PeCDF	77	21 - 178
13C12-123478-HxCDF	83	26 - 152
13C12-123678-HxCDF	84	26 - 123
13C12-234678-HxCDF	82	28 - 136
13C12-123789-HxCDF	77	29 - 147
13C12-1234678-HpCDF	86	28 - 143
13C12-1234789-HpCDF	77	26 - 138
13C12-OCDF	73	17 - 157

Dioxins/Furans Data Qualifiers:

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

*=This limit was used in the evaluation of the final result
Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-559-SA7-SB-2.0-3.0 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7024685
LLI Group # 1383412
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/16/2013 09:25 by SM

Submitted: 04/17/2013 09:30
Reported: 05/03/2013 10:18

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

55902 SDG#: PH032-03

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

F *Interference is present*
S *Saturation of detection signal*

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Analysis Report

Sample Description: SL-559-SA7-SB-2.0-3.0 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7024685
LLI Group # 1383412
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/16/2013 09:25 by SM

Submitted: 04/17/2013 09:30
Reported: 05/03/2013 10:18

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

55902 SDG#: PH032-03

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13110SLA026	04/25/2013	14:08	Mark A Clark	10
10811	BNA Soil Microwave SIM	SW-846 3546	1	13110SLA026	04/21/2013	07:00	Joseph S Feister	1
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	13108A16A	04/19/2013	00:05	Laura M Krieger	26.6
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201310730788	04/17/2013	15:14	Mitchell R Washel	n.a.
10592	19a PCBs and PCTs 8082A	SW-846 8082A	1	131100011A	04/23/2013	05:18	Jessica L Miller	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	131100011A	04/22/2013	08:00	Olivia Arosemena	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	131090007A	04/23/2013	12:02	Heather E Williams	20
12959	EFH soil ext.(microwave)	SW-846 3546	1	131090007A	04/19/2013	16:25	JoElla L Rice	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13107001	04/19/2013	01:14	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13107001	04/17/2013	13:00	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010C	1	131070637001	04/21/2013	20:36	Tara L Snyder	1
06944	Antimony	SW-846 6010C	1	131070637001	04/21/2013	20:36	Tara L Snyder	1
06935	Arsenic	SW-846 6010C	1	131070637001	04/21/2013	20:36	Tara L Snyder	1
06946	Barium	SW-846 6010C	1	131070637001	04/21/2013	20:36	Tara L Snyder	1
06947	Beryllium	SW-846 6010C	1	131070637001	04/21/2013	20:36	Tara L Snyder	1
07914	Boron	SW-846 6010C	1	131070637001	04/21/2013	20:36	Tara L Snyder	1
06949	Cadmium	SW-846 6010C	1	131070637001	04/21/2013	20:36	Tara L Snyder	1
01650	Calcium	SW-846 6010C	1	131070637001	04/21/2013	20:36	Tara L Snyder	1
06951	Chromium	SW-846 6010C	1	131070637001	04/21/2013	20:36	Tara L Snyder	1
06952	Cobalt	SW-846 6010C	1	131070637001	04/21/2013	20:36	Tara L Snyder	1
06953	Copper	SW-846 6010C	1	131070637001	04/21/2013	20:36	Tara L Snyder	1
01654	Iron	SW-846 6010C	1	131070637001	04/21/2013	20:36	Tara L Snyder	1
06955	Lead	SW-846 6010C	1	131070637001	04/21/2013	20:36	Tara L Snyder	1
01656	Lithium	SW-846 6010C	1	131070637001	04/21/2013	20:36	Tara L Snyder	1
01657	Magnesium	SW-846 6010C	1	131070637001	04/21/2013	20:36	Tara L Snyder	1
06958	Manganese	SW-846 6010C	1	131070637001	04/21/2013	20:36	Tara L Snyder	1
06960	Molybdenum	SW-846 6010C	1	131070637001	04/21/2013	20:36	Tara L Snyder	1
06961	Nickel	SW-846 6010C	1	131070637001	04/21/2013	20:36	Tara L Snyder	1
10145	Phosphorus	SW-846 6010C	1	131070637001	04/21/2013	20:36	Tara L Snyder	1
01662	Potassium	SW-846 6010C	1	131070637001	04/21/2013	20:36	Tara L Snyder	1
01667	Sodium	SW-846 6010C	1	131070637001	04/21/2013	20:36	Tara L Snyder	1
06969	Tin	SW-846 6010C	1	131070637001	04/21/2013	20:36	Tara L Snyder	1
06970	Titanium	SW-846 6010C	1	131070637001	04/21/2013	20:36	Tara L Snyder	1
06971	Vanadium	SW-846 6010C	1	131070637001	04/21/2013	20:36	Tara L Snyder	1
06972	Zinc	SW-846 6010C	1	131070637001	04/21/2013	20:36	Tara L Snyder	1
10146	Zirconium	SW-846 6010C	1	131070637001	04/21/2013	20:36	Tara L Snyder	1
06141	Selenium	SW-846 6020A	1	131070637001B	04/21/2013	02:34	David K Beck	2

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

Sample Description: SL-559-SA7-SB-2.0-3.0 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7024685
LLI Group # 1383412
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/16/2013 09:25 by SM

Submitted: 04/17/2013 09:30
Reported: 05/03/2013 10:18

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

55902 SDG#: PH032-03

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06142	Silver	SW-846 6020A	1	131070637001A	04/21/2013 02:34	David K Beck	2
06144	Strontium	SW-846 6020A	1	131070637001A	04/21/2013 02:34	David K Beck	2
06145	Thallium	SW-846 6020A	1	131070637001A	04/21/2013 02:34	David K Beck	2
00159	3a Mercury 7471A	SW-846 7471B	1	131070638001	04/18/2013 08:33	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	131070637001	04/17/2013 23:35	Annamaria Stipkovits	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	131070638001	04/18/2013 02:45	Annamaria Stipkovits	1
00394	15a pH by 9045C	SW-846 9045D modified	1	13107039401B	04/17/2013 17:30	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13112162401B	04/23/2013 22:37	Scott W Freisher	1

*=This limit was used in the evaluation of the final result
Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-560-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7024686
LLI Group # 1383412
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/16/2013 10:20 by SM

Submitted: 04/17/2013 09:30
Reported: 05/03/2013 10:18

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

56000 SDG#: PH032-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.70		1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.35		1
12969	Anthracene	120-12-7	4.6		1.7	0.35		1
12969	Benzo(a)anthracene	56-55-3	42		1.7	0.70		1
12969	Benzo(a)pyrene	50-32-8	41		1.7	0.70		1
12969	Benzo(b)fluoranthene	205-99-2	62		1.7	0.70		1
12969	Benzo(e)pyrene	192-97-2	25		18	3.5		1
12969	Benzo(g,h,i)perylene	191-24-2	12		1.7	0.70		1
12969	Benzo(k)fluoranthene	207-08-9	26		1.7	0.70		1
12969	Butylbenzylphthalate	85-68-7	19	U	19	6.3		1
12969	Di-n-butylphthalate	84-74-2	7.4	J	19	6.3		1
12969	Chrysene	218-01-9	47		1.7	0.35		1
12969	Dibenz(a,h)anthracene	53-70-3	4.4		1.7	0.70		1
12969	Diethylphthalate	84-66-2	19	U	19	6.3		1
12969	Dimethylphthalate	131-11-3	19	U	19	6.3		1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	6.6	J	19	6.3		1
12969	Fluoranthene	206-44-0	54		1.7	0.70		1
12969	Fluorene	86-73-7	1.7	U	1.7	0.70		1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	13		1.7	0.70		1
12969	1-Methylnaphthalene	90-12-0	1.7	U	1.7	0.70		1
12969	2-Methylnaphthalene	91-57-6	0.94	J	1.7	0.70		1
12969	Naphthalene	91-20-3	0.93	J	1.7	0.70		1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.70		1
12969	Di-n-octylphthalate	117-84-0	19	U	19	6.3		1
12969	Phenanthrene	85-01-8	8.6		1.7	0.70		1
12969	Pyrene	129-00-0	62		1.7	0.70		1
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	**ug/kg**	
10592	Aroclor 5432	63496-31-1	34	U	34	10		1
10592	Aroclor 5442	12642-23-8	34	U	34	10		1
10592	Aroclor 5460	11126-42-4	34	U	34	10		1
10592	PCB-1016	12674-11-2	18	U	18	3.4		1
10592	PCB-1221	11104-28-2	18	U	18	5.3		1
10592	PCB-1232	11141-16-5	18	U	18	4.2		1
10592	PCB-1242	53469-21-9	18	U	18	3.4		1
10592	PCB-1248	12672-29-6	18	U	18	3.4		1
10592	PCB-1254	11097-69-1	18	U	18	4.6		1
10592	PCB-1260	11096-82-5	18	U	18	4.0		1
10592	PCB-1262	37324-23-5	18	U	18	3.4		1
10592	PCB-1268	11100-14-4	18	U	18	3.4		1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.3	U	5.3	2.1		1
12952	EFH (C15-C20)	n.a.	3.0	J	5.3	2.1		1
12952	EFH (C21-C30)	n.a.	22		5.3	2.1		1
12952	EFH (C30-C40)	n.a.	72		11	4.2		1
12952	EFH (C8-C11)	n.a.	5.3	U	5.3	2.1		1
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	

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Analysis Report

Sample Description: SL-560-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7024686
LLI Group # 1383412
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/16/2013 10:20 by SM

Submitted: 04/17/2013 09:30
Reported: 05/03/2013 10:18

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

56000 SDG#: PH032-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	15,900		41.3	7.96		1
06944	Antimony	7440-36-0	1.91	J	4.13	0.516		1
06935	Arsenic	7440-38-2	2.31	J	4.13	0.341		1
06946	Barium	7440-39-3	99.2		1.03	0.0341		1
06947	Beryllium	7440-41-7	0.579	J	1.03	0.0691		1
07914	Boron	7440-42-8	4.59	J	10.3	0.857		1
06949	Cadmium	7440-43-9	0.445	J	1.03	0.0341		1
01650	Calcium	7440-70-2	3,670		20.6	4.15		1
06951	Chromium	7440-47-3	18.7		3.10	0.0908		1
06952	Cobalt	7440-48-4	6.20		1.03	0.0929		1
06953	Copper	7440-50-8	9.98		2.06	0.186		1
01654	Iron	7439-89-6	22,100		41.3	3.92		1
06955	Lead	7439-92-1	30.2		3.10	0.485		1
01656	Lithium	7439-93-2	19.5		4.1	0.57		1
01657	Magnesium	7439-95-4	4,410		10.3	1.79		1
06958	Manganese	7439-96-5	297		1.03	0.0857		1
06960	Molybdenum	7439-98-7	0.216	J	2.06	0.175		1
06961	Nickel	7440-02-0	9.38		2.06	0.114		1
10145	Phosphorus	7723-14-0	419		10.3	0.526		1
01662	Potassium	7440-09-7	3,210		103	13.9		1
01667	Sodium	7440-23-5	99.7	J	103	17.2		1
06969	Tin	7440-31-5	2.60	J	10.3	0.227		1
06970	Titanium	7440-32-6	1,170		1.03	0.175		1
06971	Vanadium	7440-62-2	39.6		1.03	0.114		1
06972	Zinc	7440-66-6	66.1		4.13	0.206		1
10146	Zirconium	7440-67-7	0.971	J	5.16	0.857		1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.413	U	0.413	0.103		2
06142	Silver	7440-22-4	0.0303	J	0.206	0.0206		2
06144	Strontium	7440-24-6	20.4		0.413	0.0351		2
06145	Thallium	7440-28-0	0.256		0.206	0.0310		2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0259		0.0198	0.0103		1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	**Std. Units**	
00394	15a pH by 9045C	n.a.	7.94		0.0100	0.0100		1
	The pH was measured in water at 22.2 C.							
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	5.0		0.10	0.10		1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.							

*=This limit was used in the evaluation of the final result
Shaded result = The results or reporting limit exceeded the client-provided action limit.

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Analysis Report

Sample Description: SL-560-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7024686
LLI Group # 1383412
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/16/2013 10:20 by SM

Submitted: 04/17/2013 09:30
Reported: 05/03/2013 10:18

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

56000 SDG#: PH032-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Action Limit	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg		ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.105	J	1.01	0.0293		1
11031	12378-PeCDD	40321-76-4	0.937	JB	5.04	0.0599		1
11031	123478-HxCDD	39227-28-6	1.65	JB	5.04	0.0530		1
11031	123678-HxCDD	57653-85-7	7.63	B	5.04	0.0524		1
11031	123789-HxCDD	19408-74-3	4.01	JB	5.04	0.0497		1
11031	1234678-HpCDD	35822-46-9	213	B	5.04	0.0919		1
11031	OCDD	3268-87-9	2,180	B	10.1	0.0895		1
11031	2378-TCDF	51207-31-9	0.191	JQ	1.01	0.0378		1
11031	12378-PeCDF	57117-41-6	0.495	JB	5.04	0.0253		1
11031	23478-PeCDF	57117-31-4	0.450	JB	5.04	0.0247		1
11031	123478-HxCDF	70648-26-9	0.856	JB	5.04	0.0527		1
11031	123678-HxCDF	57117-44-9	0.830	JB	5.04	0.0475		1
11031	123789-HxCDF	72918-21-9	0.355	JB	5.04	0.0668		1
11031	234678-HxCDF	60851-34-5	1.20	JB	5.04	0.0490		1
11031	1234678-HpCDF	67562-39-4	23.0	B	5.04	0.0284		1
11031	1234789-HpCDF	55673-89-7	2.05	JBQ	5.04	0.0579		1
11031	OCDF	39001-02-0	57.9	B	10.1	0.0678		1
Toxic Equivalents	**EPA 1613B**		ng/kg		ng/kg	ng/kg	ng/kg	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	5.87					1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	76	25 - 164
13C12-12378-PeCDD	76	25 - 181
13C12-123478-HxCDD	78	32 - 141
13C12-123678-HxCDD	80	28 - 130
13C12-123789-HxCDD	81	28 - 130
13C12-1234678-HpCDD	75	23 - 140
13C12-OCDD	68	17 - 157
13C12-2378-TCDF	71	24 - 169
13C12-12378-PeCDF	80	24 - 185
13C12-23478-PeCDF	75	21 - 178
13C12-123478-HxCDF	79	26 - 152
13C12-123678-HxCDF	87	26 - 123
13C12-234678-HxCDF	79	28 - 136
13C12-123789-HxCDF	62	29 - 147
13C12-1234678-HpCDF	99	28 - 143
13C12-1234789-HpCDF	58	26 - 138
13C12-OCDF	47	17 - 157

Dioxins/Furans Data Qualifiers:

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

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Shaded result = The results or reporting limit exceeded the client-provided action limit.

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Analysis Report

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Sample Description: SL-560-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7024686
LLI Group # 1383412
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/16/2013 10:20 by SM

Submitted: 04/17/2013 09:30
Reported: 05/03/2013 10:18

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

56000 SDG#: PH032-04

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

F Interference is present
S Saturation of detection signal

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Analysis Report

Sample Description: SL-560-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7024686
LLI Group # 1383412
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/16/2013 10:20 by SM

Submitted: 04/17/2013 09:30
Reported: 05/03/2013 10:18

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

56000 SDG#: PH032-04

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13110SLA026	04/25/2013	14:37	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	13110SLA026	04/21/2013	07:00	Joseph S Feister	1
10592	19a PCBs and PCTs 8082A	SW-846 8082A	1	131100011A	04/23/2013	05:36	Monica M Souders	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	131100011A	04/22/2013	08:00	Olivia Arosemena	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	131090007A	04/23/2013	08:35	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	131090007A	04/19/2013	16:25	JoElla L Rice	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13107001	04/19/2013	02:10	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13107001	04/17/2013	13:00	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010C	1	131070637001	04/21/2013	20:40	Tara L Snyder	1
06944	Antimony	SW-846 6010C	1	131070637001	04/21/2013	20:40	Tara L Snyder	1
06935	Arsenic	SW-846 6010C	1	131070637001	04/21/2013	20:40	Tara L Snyder	1
06946	Barium	SW-846 6010C	1	131070637001	04/21/2013	20:40	Tara L Snyder	1
06947	Beryllium	SW-846 6010C	1	131070637001	04/21/2013	20:40	Tara L Snyder	1
07914	Boron	SW-846 6010C	1	131070637001	04/21/2013	20:40	Tara L Snyder	1
06949	Cadmium	SW-846 6010C	1	131070637001	04/21/2013	20:40	Tara L Snyder	1
01650	Calcium	SW-846 6010C	1	131070637001	04/21/2013	20:40	Tara L Snyder	1
06951	Chromium	SW-846 6010C	1	131070637001	04/21/2013	20:40	Tara L Snyder	1
06952	Cobalt	SW-846 6010C	1	131070637001	04/21/2013	20:40	Tara L Snyder	1
06953	Copper	SW-846 6010C	1	131070637001	04/21/2013	20:40	Tara L Snyder	1
01654	Iron	SW-846 6010C	1	131070637001	04/21/2013	20:40	Tara L Snyder	1
06955	Lead	SW-846 6010C	1	131070637001	04/21/2013	20:40	Tara L Snyder	1
01656	Lithium	SW-846 6010C	1	131070637001	04/21/2013	20:40	Tara L Snyder	1
01657	Magnesium	SW-846 6010C	1	131070637001	04/21/2013	20:40	Tara L Snyder	1
06958	Manganese	SW-846 6010C	1	131070637001	04/21/2013	20:40	Tara L Snyder	1
06960	Molybdenum	SW-846 6010C	1	131070637001	04/21/2013	20:40	Tara L Snyder	1
06961	Nickel	SW-846 6010C	1	131070637001	04/21/2013	20:40	Tara L Snyder	1
10145	Phosphorus	SW-846 6010C	1	131070637001	04/21/2013	20:40	Tara L Snyder	1
01662	Potassium	SW-846 6010C	1	131070637001	04/21/2013	20:40	Tara L Snyder	1
01667	Sodium	SW-846 6010C	1	131070637001	04/21/2013	20:40	Tara L Snyder	1
06969	Tin	SW-846 6010C	1	131070637001	04/21/2013	20:40	Tara L Snyder	1
06970	Titanium	SW-846 6010C	1	131070637001	04/21/2013	20:40	Tara L Snyder	1
06971	Vanadium	SW-846 6010C	1	131070637001	04/21/2013	20:40	Tara L Snyder	1
06972	Zinc	SW-846 6010C	1	131070637001	04/21/2013	20:40	Tara L Snyder	1
10146	Zirconium	SW-846 6010C	1	131070637001	04/21/2013	20:40	Tara L Snyder	1
06141	Selenium	SW-846 6020A	1	131070637001B	04/21/2013	02:37	David K Beck	2
06142	Silver	SW-846 6020A	1	131070637001A	04/21/2013	02:37	David K Beck	2
06144	Strontium	SW-846 6020A	1	131070637001A	04/21/2013	02:37	David K Beck	2
06145	Thallium	SW-846 6020A	1	131070637001A	04/21/2013	02:37	David K Beck	2

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Analysis Report

Sample Description: SL-560-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7024686
LLI Group # 1383412
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/16/2013 10:20 by SM

Submitted: 04/17/2013 09:30
Reported: 05/03/2013 10:18

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

56000 SDG#: PH032-04

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00159	3a Mercury 7471A	SW-846 7471B	1	131070638001	04/18/2013 08:40	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	131070637001	04/17/2013 23:35	Annamaria Stipkovits	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	131070638001	04/18/2013 02:45	Annamaria Stipkovits	1
00394	15a pH by 9045C	SW-846 9045D modified	1	13107039401B	04/17/2013 17:30	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13112162401B	04/23/2013 22:37	Scott W Freisher	1

*=This limit was used in the evaluation of the final result
Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-560-SA7-SB-3.0-4.0 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7024687
LLI Group # 1383412
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/16/2013 11:05 by SM

Submitted: 04/17/2013 09:30
Reported: 05/03/2013 10:18

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

56003 SDG#: PH032-05

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.9	U	1.9	0.75		1
12969	Acenaphthylene	208-96-8	1.9	U	1.9	0.37		1
12969	Anthracene	120-12-7	1.9	U	1.9	0.37		1
12969	Benzo(a)anthracene	56-55-3	1.9	U	1.9	0.75		1
12969	Benzo(a)pyrene	50-32-8	1.9	U	1.9	0.75		1
12969	Benzo(b)fluoranthene	205-99-2	1.3	J	1.9	0.75		1
12969	Benzo(e)pyrene	192-97-2	19	U	19	3.7		1
12969	Benzo(g,h,i)perylene	191-24-2	1.9	U	1.9	0.75		1
12969	Benzo(k)fluoranthene	207-08-9	1.9	U	1.9	0.75		1
12969	Butylbenzylphthalate	85-68-7	20	U	20	6.7		1
12969	Di-n-butylphthalate	84-74-2	20	U	20	6.7		1
12969	Chrysene	218-01-9	2.2		1.9	0.37		1
12969	Dibenz(a,h)anthracene	53-70-3	1.9	U	1.9	0.75		1
12969	Diethylphthalate	84-66-2	20	U	20	6.7		1
12969	Dimethylphthalate	131-11-3	20	U	20	6.7		1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	20	U	20	6.7		1
12969	Fluoranthene	206-44-0	1.9	U	1.9	0.75		1
12969	Fluorene	86-73-7	1.9	U	1.9	0.75		1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.9	U	1.9	0.75		1
12969	1-Methylnaphthalene	90-12-0	1.9	U	1.9	0.75		1
12969	2-Methylnaphthalene	91-57-6	1.9	U	1.9	0.75		1
12969	Naphthalene	91-20-3	1.9	U	1.9	0.75		1
12969	N-Nitrosodimethylamine	62-75-9	1.9	U	1.9	0.75		1
12969	Di-n-octylphthalate	117-84-0	20	U	20	6.7		1
12969	Phenanthrene	85-01-8	1.9	U	1.9	0.75		1
12969	Pyrene	129-00-0	1.2	J	1.9	0.75		1
GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	1.2	U	1.2	0.2		25.77
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	**ug/kg**	
10592	Aroclor 5432	63496-31-1	36	U	36	11		1
10592	Aroclor 5442	12642-23-8	36	U	36	11		1
10592	Aroclor 5460	11126-42-4	36	U	36	11		1
10592	PCB-1016	12674-11-2	19	U	19	3.6		1
10592	PCB-1221	11104-28-2	19	U	19	5.6		1
10592	PCB-1232	11141-16-5	19	U	19	4.5		1
10592	PCB-1242	53469-21-9	19	U	19	3.6		1
10592	PCB-1248	12672-29-6	19	U	19	3.6		1
10592	PCB-1254	11097-69-1	19	U	19	4.9		1
10592	PCB-1260	11096-82-5	19	U	19	4.3		1
10592	PCB-1262	37324-23-5	19	U	19	3.6		1
10592	PCB-1268	11100-14-4	19	U	19	3.6		1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.6	U	5.6	2.2		1
12952	EFH (C15-C20)	n.a.	5.6	U	5.6	2.2		1

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Sample Description: SL-560-SA7-SB-3.0-4.0 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7024687
LLI Group # 1383412
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/16/2013 11:05 by SM

Submitted: 04/17/2013 09:30
Reported: 05/03/2013 10:18

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

56003 SDG#: PH032-05

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
12952	EFH (C21-C30)	n.a.	10		5.6	2.2		1
12952	EFH (C30-C40)	n.a.	27		11	4.5		1
12952	EFH (C8-C11)	n.a.	5.6	U	5.6	2.2		1
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	30,600		44.0	8.48		1
06944	Antimony	7440-36-0	2.55	J	4.40	0.550		1
06935	Arsenic	7440-38-2	4.63		4.40	0.363		1
06946	Barium	7440-39-3	132		1.10	0.0363		1
06947	Beryllium	7440-41-7	1.01	J	1.10	0.0737		1
07914	Boron	7440-42-8	5.41	J	11.0	0.913		1
06949	Cadmium	7440-43-9	0.736	J	1.10	0.0363		1
01650	Calcium	7440-70-2	12,600		22.0	4.42		1
06951	Chromium	7440-47-3	38.5		3.30	0.0968		1
06952	Cobalt	7440-48-4	10.5		1.10	0.0990		1
06953	Copper	7440-50-8	17.0		2.20	0.198		1
01654	Iron	7439-89-6	30,900		220	20.9		5
06955	Lead	7439-92-1	12.1		3.30	0.517		1
01656	Lithium	7439-93-2	26.3		4.4	0.61		1
01657	Magnesium	7439-95-4	7,330		11.0	1.90		1
06958	Manganese	7439-96-5	493		1.10	0.0913		1
06960	Molybdenum	7439-98-7	0.360	J	2.20	0.187		1
06961	Nickel	7440-02-0	18.8		2.20	0.121		1
10145	Phosphorus	7723-14-0	386		11.0	0.561		1
01662	Potassium	7440-09-7	4,110		110	14.9		1
01667	Sodium	7440-23-5	113		110	18.4		1
06969	Tin	7440-31-5	2.88	J	11.0	0.242		1
06970	Titanium	7440-32-6	1,390		1.10	0.187		1
06971	Vanadium	7440-62-2	69.0		1.10	0.121		1
06972	Zinc	7440-66-6	69.6		4.40	0.220		1
10146	Zirconium	7440-67-7	4.08	J	5.50	0.913		1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.161	J	0.440	0.110		2
06142	Silver	7440-22-4	0.0406	J	0.220	0.0220		2
06144	Strontium	7440-24-6	42.8		0.440	0.0374		2
06145	Thallium	7440-28-0	0.349		0.220	0.0330		2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0183	J	0.0214	0.0111		1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	**Std. Units**	
00394	15a pH by 9045C	n.a.	7.92		0.0100	0.0100		1
	The pH was measured in water at 22.1 C.							
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	10.9		0.10	0.10		1

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Analysis Report

Sample Description: SL-560-SA7-SB-3.0-4.0 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7024687
LLI Group # 1383412
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/16/2013 11:05 by SM

Submitted: 04/17/2013 09:30
Reported: 05/03/2013 10:18

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

56003 SDG#: PH032-05

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

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

*=This limit was used in the evaluation of the final result
Shaded result = The results or reporting limit exceeded the client-provided action limit.

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Analysis Report

Sample Description: SL-560-SA7-SB-3.0-4.0 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7024687
LLI Group # 1383412
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/16/2013 11:05 by SM

Submitted: 04/17/2013 09:30
Reported: 05/03/2013 10:18

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

56003 SDG#: PH032-05

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Action Limit	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg		ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0801	JQ	1.12	0.0234		1
11031	12378-PeCDD	40321-76-4	0.235	JBQ	5.58	0.0226		1
11031	123478-HxCDD	39227-28-6	0.0961	JB	5.58	0.0221		1
11031	123678-HxCDD	57653-85-7	0.205	JBQ	5.58	0.0224		1
11031	123789-HxCDD	19408-74-3	0.262	JBQ	5.58	0.0210		1
11031	1234678-HpCDD	35822-46-9	1.26	JBQ	5.58	0.0242		1
11031	OCDD	3268-87-9	10.7	JB	11.2	0.0227		1
11031	2378-TCDF	51207-31-9	0.0392	JQ	1.12	0.0182		1
11031	12378-PeCDF	57117-41-6	0.309	JB	5.58	0.0124		1
11031	23478-PeCDF	57117-31-4	0.179	JBQ	5.58	0.0131		1
11031	123478-HxCDF	70648-26-9	0.157	JB	5.58	0.0194		1
11031	123678-HxCDF	57117-44-9	0.0911	JB	5.58	0.0163		1
11031	123789-HxCDF	72918-21-9	0.439	JBQ	5.58	0.0226		1
11031	234678-HxCDF	60851-34-5	0.0801	JB	5.58	0.0183		1
11031	1234678-HpCDF	67562-39-4	0.129	JB	5.58	0.00828		1
11031	1234789-HpCDF	55673-89-7	0.125	JB	5.58	0.0169		1
11031	OCDF	39001-02-0	0.373	JBQ	11.2	0.0339		1
Toxic Equivalents	**EPA 1613B**		ng/kg		ng/kg	ng/kg	ng/kg	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.0574					1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	80	25 - 164
13C12-12378-PeCDD	85	25 - 181
13C12-123478-HxCDD	92	32 - 141
13C12-123678-HxCDD	92	28 - 130
13C12-123789-HxCDD	91	28 - 130
13C12-1234678-HpCDD	89	23 - 140
13C12-OCDD	87	17 - 157
13C12-2378-TCDF	74	24 - 169
13C12-12378-PeCDF	91	24 - 185
13C12-23478-PeCDF	82	21 - 178
13C12-123478-HxCDF	87	26 - 152
13C12-123678-HxCDF	100	26 - 123
13C12-234678-HxCDF	89	28 - 136
13C12-123789-HxCDF	82	29 - 147
13C12-1234678-HpCDF	126	28 - 143
13C12-1234789-HpCDF	70	26 - 138
13C12-OCDF	62	17 - 157

Dioxins/Furans Data Qualifiers:

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

*=This limit was used in the evaluation of the final result
Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-560-SA7-SB-3.0-4.0 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7024687
LLI Group # 1383412
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/16/2013 11:05 by SM

Submitted: 04/17/2013 09:30
Reported: 05/03/2013 10:18

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

56003 SDG#: PH032-05

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

F *Interference is present*
S *Saturation of detection signal*

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Analysis Report

Sample Description: SL-560-SA7-SB-3.0-4.0 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7024687
LLI Group # 1383412
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/16/2013 11:05 by SM

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

56003 SDG#: PH032-05

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13110SLA026	04/25/2013	15:06	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	13110SLA026	04/21/2013	07:00	Joseph S Feister	1
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	13108A16A	04/19/2013	00:43	Laura M Krieger	25.77
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201310730788	04/17/2013	15:15	Mitchell R Washel	n.a.
10592	19a PCBs and PCTs 8082A	SW-846 8082A	1	131100011A	04/23/2013	05:55	Monica M Souders	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	131100011A	04/22/2013	08:00	Olivia Arosemena	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	131090007A	04/23/2013	08:56	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	131090007A	04/19/2013	16:25	JoElla L Rice	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13107001	04/19/2013	07:58	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13107001	04/17/2013	13:00	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010C	1	131070637001	04/21/2013	20:44	Tara L Snyder	1
06944	Antimony	SW-846 6010C	1	131070637001	04/21/2013	20:44	Tara L Snyder	1
06935	Arsenic	SW-846 6010C	1	131070637001	04/21/2013	20:44	Tara L Snyder	1
06946	Barium	SW-846 6010C	1	131070637001	04/21/2013	20:44	Tara L Snyder	1
06947	Beryllium	SW-846 6010C	1	131070637001	04/21/2013	20:44	Tara L Snyder	1
07914	Boron	SW-846 6010C	1	131070637001	04/21/2013	20:44	Tara L Snyder	1
06949	Cadmium	SW-846 6010C	1	131070637001	04/21/2013	20:44	Tara L Snyder	1
01650	Calcium	SW-846 6010C	1	131070637001	04/21/2013	20:44	Tara L Snyder	1
06951	Chromium	SW-846 6010C	1	131070637001	04/21/2013	20:44	Tara L Snyder	1
06952	Cobalt	SW-846 6010C	1	131070637001	04/21/2013	20:44	Tara L Snyder	1
06953	Copper	SW-846 6010C	1	131070637001	04/21/2013	20:44	Tara L Snyder	1
01654	Iron	SW-846 6010C	1	131070637001	04/22/2013	15:12	Eric L Eby	5
06955	Lead	SW-846 6010C	1	131070637001	04/21/2013	20:44	Tara L Snyder	1
01656	Lithium	SW-846 6010C	1	131070637001	04/21/2013	20:44	Tara L Snyder	1
01657	Magnesium	SW-846 6010C	1	131070637001	04/21/2013	20:44	Tara L Snyder	1
06958	Manganese	SW-846 6010C	1	131070637001	04/21/2013	20:44	Tara L Snyder	1
06960	Molybdenum	SW-846 6010C	1	131070637001	04/21/2013	20:44	Tara L Snyder	1
06961	Nickel	SW-846 6010C	1	131070637001	04/21/2013	20:44	Tara L Snyder	1
10145	Phosphorus	SW-846 6010C	1	131070637001	04/21/2013	20:44	Tara L Snyder	1
01662	Potassium	SW-846 6010C	1	131070637001	04/21/2013	20:44	Tara L Snyder	1
01667	Sodium	SW-846 6010C	1	131070637001	04/21/2013	20:44	Tara L Snyder	1
06969	Tin	SW-846 6010C	1	131070637001	04/21/2013	20:44	Tara L Snyder	1
06970	Titanium	SW-846 6010C	1	131070637001	04/21/2013	20:44	Tara L Snyder	1
06971	Vanadium	SW-846 6010C	1	131070637001	04/21/2013	20:44	Tara L Snyder	1
06972	Zinc	SW-846 6010C	1	131070637001	04/21/2013	20:44	Tara L Snyder	1
10146	Zirconium	SW-846 6010C	1	131070637001	04/21/2013	20:44	Tara L Snyder	1
06141	Selenium	SW-846 6020A	1	131070637001B	04/21/2013	02:39	David K Beck	2

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Analysis Report

Sample Description: SL-560-SA7-SB-3.0-4.0 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7024687
LLI Group # 1383412
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/16/2013 11:05 by SM

Submitted: 04/17/2013 09:30
Reported: 05/03/2013 10:18

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

56003 SDG#: PH032-05

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06142	Silver	SW-846 6020A	1	131070637001A	04/21/2013 02:39	David K Beck	2
06144	Strontium	SW-846 6020A	1	131070637001A	04/21/2013 02:39	David K Beck	2
06145	Thallium	SW-846 6020A	1	131070637001A	04/21/2013 02:39	David K Beck	2
00159	3a Mercury 7471A	SW-846 7471B	1	131070638001	04/18/2013 08:42	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	131070637001	04/17/2013 23:35	Annamaria Stipkovits	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	131070638001	04/18/2013 02:45	Annamaria Stipkovits	1
00394	15a pH by 9045C	SW-846 9045D modified	1	13107039401B	04/17/2013 17:30	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13112162401B	04/23/2013 22:37	Scott W Freisher	1

*=This limit was used in the evaluation of the final result
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Sample Description: SL-561-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7024688
LLI Group # 1383412
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/16/2013 13:30 by SM

Submitted: 04/17/2013 09:30
Reported: 05/03/2013 10:18

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

56100 SDG#: PH032-06

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.69		1
12969	Acenaphthylene	208-96-8	0.94	J	1.7	0.35		1
12969	Anthracene	120-12-7	2.3		1.7	0.35		1
12969	Benzo(a)anthracene	56-55-3	3.4		1.7	0.69		1
12969	Benzo(a)pyrene	50-32-8	2.2		1.7	0.69		1
12969	Benzo(b)fluoranthene	205-99-2	6.7		1.7	0.69		1
12969	Benzo(e)pyrene	192-97-2	18	U	18	3.5		1
12969	Benzo(g,h,i)perylene	191-24-2	1.6	J	1.7	0.69		1
12969	Benzo(k)fluoranthene	207-08-9	2.9		1.7	0.69		1
12969	Butylbenzylphthalate	85-68-7	19	U	19	6.2		1
12969	Di-n-butylphthalate	84-74-2	33		19	6.2		1
12969	Chrysene	218-01-9	11		1.7	0.35		1
12969	Dibenz(a,h)anthracene	53-70-3	1.7	U	1.7	0.69		1
12969	Diethylphthalate	84-66-2	19	U	19	6.2		1
12969	Dimethylphthalate	131-11-3	19	U	19	6.2		1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	8.8	J	19	6.2		1
12969	Fluoranthene	206-44-0	42		1.7	0.69		1
12969	Fluorene	86-73-7	1.0	J	1.7	0.69		1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.1	J	1.7	0.69		1
12969	1-Methylnaphthalene	90-12-0	1.2	J	1.7	0.69		1
12969	2-Methylnaphthalene	91-57-6	1.7	J	1.7	0.69		1
12969	Naphthalene	91-20-3	3.3		1.7	0.69		1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.69		1
12969	Di-n-octylphthalate	117-84-0	19	U	19	6.2		1
12969	Phenanthrene	85-01-8	29		1.7	0.69		1
12969	Pyrene	129-00-0	38		1.7	0.69		1
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	**ug/kg**	
10592	Aroclor 5432	63496-31-1	34	U	34	10		1
10592	Aroclor 5442	12642-23-8	34	U	34	10		1
10592	Aroclor 5460	11126-42-4	34	U	34	10		1
10592	PCB-1016	12674-11-2	17	U	17	3.4		1
10592	PCB-1221	11104-28-2	17	U	17	5.2		1
10592	PCB-1232	11141-16-5	17	U	17	4.2		1
10592	PCB-1242	53469-21-9	17	U	17	3.4		1
10592	PCB-1248	12672-29-6	17	U	17	3.4		1
10592	PCB-1254	11097-69-1	17	U	17	4.5		1
10592	PCB-1260	11096-82-5	17	U	17	4.0		1
10592	PCB-1262	37324-23-5	17	U	17	3.4		1
10592	PCB-1268	11100-14-4	17	U	17	3.4		1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	26	U	26	10		5
12952	EFH (C15-C20)	n.a.	11	J	26	10		5
12952	EFH (C21-C30)	n.a.	52		26	10		5
12952	EFH (C30-C40)	n.a.	230		52	21		5
12952	EFH (C8-C11)	n.a.	26	U	26	10		5
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	

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Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-561-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7024688
LLI Group # 1383412
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/16/2013 13:30 by SM

Submitted: 04/17/2013 09:30
Reported: 05/03/2013 10:18

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

56100 SDG#: PH032-06

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	14,300		40.4	7.79		1
06944	Antimony	7440-36-0	1.73	J	4.04	0.505		1
06935	Arsenic	7440-38-2	2.59	J	4.04	0.333		1
06946	Barium	7440-39-3	108		1.01	0.0333		1
06947	Beryllium	7440-41-7	0.562	J	1.01	0.0677		1
07914	Boron	7440-42-8	4.91	J	10.1	0.839		1
06949	Cadmium	7440-43-9	0.581	J	1.01	0.0333		1
01650	Calcium	7440-70-2	4,290		20.2	4.06		1
06951	Chromium	7440-47-3	19.9		3.03	0.0889		1
06952	Cobalt	7440-48-4	5.85		1.01	0.0909		1
06953	Copper	7440-50-8	9.12		2.02	0.182		1
01654	Iron	7439-89-6	21,400		40.4	3.84		1
06955	Lead	7439-92-1	26.0		3.03	0.475		1
01656	Lithium	7439-93-2	24.8		4.0	0.56		1
01657	Magnesium	7439-95-4	4,750		10.1	1.75		1
06958	Manganese	7439-96-5	560		1.01	0.0839		1
06960	Molybdenum	7439-98-7	0.501	J	2.02	0.172		1
06961	Nickel	7440-02-0	11.4		2.02	0.111		1
10145	Phosphorus	7723-14-0	601		10.1	0.515		1
01662	Potassium	7440-09-7	3,510		101	13.6		1
01667	Sodium	7440-23-5	93.3	J	101	16.9		1
06969	Tin	7440-31-5	2.88	J	10.1	0.222		1
06970	Titanium	7440-32-6	1,150		1.01	0.172		1
06971	Vanadium	7440-62-2	36.0		1.01	0.111		1
06972	Zinc	7440-66-6	96.8		4.04	0.202		1
10146	Zirconium	7440-67-7	5.05	U	5.05	0.839		1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.140	J	0.404	0.101		2
06142	Silver	7440-22-4	0.0434	J	0.202	0.0202		2
06144	Strontium	7440-24-6	35.0		0.404	0.0343		2
06145	Thallium	7440-28-0	0.240		0.202	0.0303		2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0299		0.0204	0.0105		1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	**Std. Units**	
00394	15a pH by 9045C	n.a.	7.06		0.0100	0.0100		1
	The pH was measured in water at 22.4 C.							
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	3.9		0.10	0.10		1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.							

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Analysis Report

Sample Description: SL-561-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7024688
LLI Group # 1383412
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/16/2013 13:30 by SM

Submitted: 04/17/2013 09:30
Reported: 05/03/2013 10:18

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

56100 SDG#: PH032-06

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Action Limit	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg		ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	1.04	U	1.04	0.0250		1
11031	12378-PeCDD	40321-76-4	0.448	JB	5.20	0.0432		1
11031	123478-HxCDD	39227-28-6	0.897	JB	5.20	0.0325		1
11031	123678-HxCDD	57653-85-7	4.00	JB	5.20	0.0331		1
11031	123789-HxCDD	19408-74-3	1.82	JB	5.20	0.0306		1
11031	1234678-HpCDD	35822-46-9	110	B	5.20	0.0630		1
11031	OCDD	3268-87-9	1,140	B	10.4	0.0412		1
11031	2378-TCDF	51207-31-9	0.507	J	1.04	0.0553		1
11031	12378-PeCDF	57117-41-6	0.860	JB	5.20	0.0225		1
11031	23478-PeCDF	57117-31-4	1.08	JB	5.20	0.0235		1
11031	123478-HxCDF	70648-26-9	1.83	JB	5.20	0.0308		1
11031	123678-HxCDF	57117-44-9	1.49	JB	5.20	0.0267		1
11031	123789-HxCDF	72918-21-9	1.07	JB	5.20	0.0330		1
11031	234678-HxCDF	60851-34-5	1.59	JB	5.20	0.0277		1
11031	1234678-HpCDF	67562-39-4	16.3	B	5.20	0.0228		1
11031	1234789-HpCDF	55673-89-7	2.07	JB	5.20	0.0433		1
11031	OCDF	39001-02-0	27.3	B	10.4	0.0295		1
Toxic Equivalents	**EPA 1613B**		ng/kg		ng/kg	ng/kg	ng/kg	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	3.75					1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	79	25 - 164
13C12-12378-PeCDD	80	25 - 181
13C12-123478-HxCDD	84	32 - 141
13C12-123678-HxCDD	88	28 - 130
13C12-123789-HxCDD	88	28 - 130
13C12-1234678-HpCDD	84	23 - 140
13C12-OCDD	85	17 - 157
13C12-2378-TCDF	75	24 - 169
13C12-12378-PeCDF	87	24 - 185
13C12-23478-PeCDF	78	21 - 178
13C12-123478-HxCDF	84	26 - 152
13C12-123678-HxCDF	93	26 - 123
13C12-234678-HxCDF	84	28 - 136
13C12-123789-HxCDF	78	29 - 147
13C12-1234678-HpCDF	115	28 - 143
13C12-1234789-HpCDF	68	26 - 138
13C12-OCDF	61	17 - 157

Dioxins/Furans Data Qualifiers:

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

*=This limit was used in the evaluation of the final result
Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-561-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7024688
LLI Group # 1383412
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/16/2013 13:30 by SM

Submitted: 04/17/2013 09:30
Reported: 05/03/2013 10:18

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

56100 SDG#: PH032-06

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

F Interference is present
S Saturation of detection signal

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

Sample Description: SL-561-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7024688
LLI Group # 1383412
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/16/2013 13:30 by SM

Submitted: 04/17/2013 09:30
Reported: 05/03/2013 10:18

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

56100 SDG#: PH032-06

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13110SLA026	04/25/2013	15:36	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	13110SLA026	04/21/2013	07:00	Joseph S Feister	1
10592	19a PCBs and PCTs 8082A	SW-846 8082A	1	131100011A	04/23/2013	06:13	Monica M Souders	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	131100011A	04/22/2013	08:00	Olivia Arosemena	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	131090007A	04/24/2013	09:42	Heather E Williams	5
12959	EFH soil ext.(microwave)	SW-846 3546	1	131090007A	04/19/2013	16:25	JoElla L Rice	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13107001	04/19/2013	08:55	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13107001	04/17/2013	13:00	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010C	1	131070637001	04/21/2013	20:47	Tara L Snyder	1
06944	Antimony	SW-846 6010C	1	131070637001	04/21/2013	20:47	Tara L Snyder	1
06935	Arsenic	SW-846 6010C	1	131070637001	04/21/2013	20:47	Tara L Snyder	1
06946	Barium	SW-846 6010C	1	131070637001	04/21/2013	20:47	Tara L Snyder	1
06947	Beryllium	SW-846 6010C	1	131070637001	04/21/2013	20:47	Tara L Snyder	1
07914	Boron	SW-846 6010C	1	131070637001	04/21/2013	20:47	Tara L Snyder	1
06949	Cadmium	SW-846 6010C	1	131070637001	04/21/2013	20:47	Tara L Snyder	1
01650	Calcium	SW-846 6010C	1	131070637001	04/21/2013	20:47	Tara L Snyder	1
06951	Chromium	SW-846 6010C	1	131070637001	04/21/2013	20:47	Tara L Snyder	1
06952	Cobalt	SW-846 6010C	1	131070637001	04/21/2013	20:47	Tara L Snyder	1
06953	Copper	SW-846 6010C	1	131070637001	04/21/2013	20:47	Tara L Snyder	1
01654	Iron	SW-846 6010C	1	131070637001	04/21/2013	20:47	Tara L Snyder	1
06955	Lead	SW-846 6010C	1	131070637001	04/21/2013	20:47	Tara L Snyder	1
01656	Lithium	SW-846 6010C	1	131070637001	04/21/2013	20:47	Tara L Snyder	1
01657	Magnesium	SW-846 6010C	1	131070637001	04/21/2013	20:47	Tara L Snyder	1
06958	Manganese	SW-846 6010C	1	131070637001	04/21/2013	20:47	Tara L Snyder	1
06960	Molybdenum	SW-846 6010C	1	131070637001	04/21/2013	20:47	Tara L Snyder	1
06961	Nickel	SW-846 6010C	1	131070637001	04/21/2013	20:47	Tara L Snyder	1
10145	Phosphorus	SW-846 6010C	1	131070637001	04/21/2013	20:47	Tara L Snyder	1
01662	Potassium	SW-846 6010C	1	131070637001	04/21/2013	20:47	Tara L Snyder	1
01667	Sodium	SW-846 6010C	1	131070637001	04/21/2013	20:47	Tara L Snyder	1
06969	Tin	SW-846 6010C	1	131070637001	04/21/2013	20:47	Tara L Snyder	1
06970	Titanium	SW-846 6010C	1	131070637001	04/21/2013	20:47	Tara L Snyder	1
06971	Vanadium	SW-846 6010C	1	131070637001	04/21/2013	20:47	Tara L Snyder	1
06972	Zinc	SW-846 6010C	1	131070637001	04/21/2013	20:47	Tara L Snyder	1
10146	Zirconium	SW-846 6010C	1	131070637001	04/21/2013	20:47	Tara L Snyder	1
06141	Selenium	SW-846 6020A	1	131070637001B	04/21/2013	02:41	David K Beck	2
06142	Silver	SW-846 6020A	1	131070637001A	04/21/2013	02:41	David K Beck	2
06144	Strontium	SW-846 6020A	1	131070637001A	04/21/2013	02:41	David K Beck	2
06145	Thallium	SW-846 6020A	1	131070637001A	04/21/2013	02:41	David K Beck	2

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Analysis Report

Sample Description: SL-561-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7024688
LLI Group # 1383412
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/16/2013 13:30 by SM

Submitted: 04/17/2013 09:30
Reported: 05/03/2013 10:18

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

56100 SDG#: PH032-06

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00159	3a Mercury 7471A	SW-846 7471B	1	131070638001	04/18/2013 08:44	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	131070637001	04/17/2013 23:35	Annamaria Stipkovits	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	131070638001	04/18/2013 02:45	Annamaria Stipkovits	1
00394	15a pH by 9045C	SW-846 9045D modified	1	13107039401B	04/17/2013 17:30	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13112162401B	04/23/2013 22:37	Scott W Freisher	1

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

Sample Description: TB-041613 Water
SSFL Phase 3 Subarea 7

LLI Sample # WW 7024689
LLI Group # 1383412
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/16/2013 08:00

Submitted: 04/17/2013 09:30
Reported: 05/03/2013 10:18

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

561TB SDG#: PH032-07TB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Action Limit	Dilution Factor
GC Volatiles	**TPH GRO SW-8015B**		ug/l		ug/l	ug/l	ug/l	
08229	TPH-GRO S.CA water C5-C12	n.a.	50	U	50	20		1

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
08229	11b TPH by EPA 8015B GRO	TPH GRO SW-8015B	1	13108B20A	04/19/2013	13:54	Catherine J Schwarz	1
01146	GC VOA Water Prep	SW-846 5030B	1	13108B20A	04/19/2013	13:54	Catherine J Schwarz	1

*=This limit was used in the evaluation of the final result
Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-558-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7024690
LLI Group # 1383412
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/16/2013 14:35 by SM

Submitted: 04/17/2013 09:30
Reported: 05/03/2013 10:18

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

55800 SDG#: PH032-08*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.68		1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.34		1
12969	Anthracene	120-12-7	0.36	J	1.7	0.34		1
12969	Benzo(a)anthracene	56-55-3	1.4	J	1.7	0.68		1
12969	Benzo(a)pyrene	50-32-8	1.8		1.7	0.68		1
12969	Benzo(b)fluoranthene	205-99-2	3.1		1.7	0.68		1
12969	Benzo(e)pyrene	192-97-2	17	U	17	3.4		1
12969	Benzo(g,h,i)perylene	191-24-2	1.2	J	1.7	0.68		1
12969	Benzo(k)fluoranthene	207-08-9	1.1	J	1.7	0.68		1
12969	Butylbenzylphthalate	85-68-7	18	U	18	6.1		1
12969	Di-n-butylphthalate	84-74-2	870		180	61		10
12969	Chrysene	218-01-9	3.2		1.7	0.34		1
12969	Dibenz(a,h)anthracene	53-70-3	1.7	U	1.7	0.68		1
12969	Diethylphthalate	84-66-2	18	U	18	6.1		1
12969	Dimethylphthalate	131-11-3	18	U	18	6.1		1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	14	J	18	6.1		1
12969	Fluoranthene	206-44-0	3.5		1.7	0.68		1
12969	Fluorene	86-73-7	1.7	U	1.7	0.68		1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	0.90	J	1.7	0.68		1
12969	1-Methylnaphthalene	90-12-0	1.7	U	1.7	0.68		1
12969	2-Methylnaphthalene	91-57-6	1.2	J	1.7	0.68		1
12969	Naphthalene	91-20-3	1.6	J	1.7	0.68		1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.68		1
12969	Di-n-octylphthalate	117-84-0	18	U	18	6.1		1
12969	Phenanthrene	85-01-8	3.3		1.7	0.68		1
12969	Pyrene	129-00-0	3.8		1.7	0.68		1
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	**ug/kg**	
10592	Aroclor 5432	63496-31-1	33	U	33	10		1
10592	Aroclor 5442	12642-23-8	33	U	33	10		1
10592	Aroclor 5460	11126-42-4	33	U	33	10		1
10592	PCB-1016	12674-11-2	17	U	17	3.3		1
10592	PCB-1221	11104-28-2	17	U	17	5.1		1
10592	PCB-1232	11141-16-5	17	U	17	4.1		1
10592	PCB-1242	53469-21-9	17	U	17	3.3		1
10592	PCB-1248	12672-29-6	17	U	17	3.3		1
10592	PCB-1254	11097-69-1	17	U	17	4.4		1
10592	PCB-1260	11096-82-5	17	U	17	3.9		1
10592	PCB-1262	37324-23-5	17	U	17	3.3		1
10592	PCB-1268	11100-14-4	17	U	17	3.3		1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.1	U	5.1	2.1		1
12952	EFH (C15-C20)	n.a.	5.1	U	5.1	2.1		1
12952	EFH (C21-C30)	n.a.	28		5.1	2.1		1
12952	EFH (C30-C40)	n.a.	36		10	4.1		1
12952	EFH (C8-C11)	n.a.	5.1	U	5.1	2.1		1
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	

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

Sample Description: SL-558-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7024690
LLI Group # 1383412
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/16/2013 14:35 by SM

Submitted: 04/17/2013 09:30
Reported: 05/03/2013 10:18

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

55800 SDG#: PH032-08*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Action Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	9,610		40.2	7.75		1
06944	Antimony	7440-36-0	1.18	J	4.02	0.503		1
06935	Arsenic	7440-38-2	1.55	J	4.02	0.332		1
06946	Barium	7440-39-3	55.4		1.01	0.0332		1
06947	Beryllium	7440-41-7	0.378	J	1.01	0.0674		1
07914	Boron	7440-42-8	3.37	J	10.1	0.835		1
06949	Cadmium	7440-43-9	0.651	J	1.01	0.0332		1
01650	Calcium	7440-70-2	2,160		20.1	4.04		1
06951	Chromium	7440-47-3	14.3		3.02	0.0885		1
06952	Cobalt	7440-48-4	3.82		1.01	0.0905		1
06953	Copper	7440-50-8	6.40		2.01	0.181		1
01654	Iron	7439-89-6	14,000		40.2	3.82		1
06955	Lead	7439-92-1	19.5		3.02	0.473		1
01656	Lithium	7439-93-2	12.0		4.0	0.55		1
01657	Magnesium	7439-95-4	2,600		10.1	1.74		1
06958	Manganese	7439-96-5	198		1.01	0.0835		1
06960	Molybdenum	7439-98-7	0.229	J	2.01	0.171		1
06961	Nickel	7440-02-0	7.15		2.01	0.111		1
10145	Phosphorus	7723-14-0	308		10.1	0.513		1
01662	Potassium	7440-09-7	2,190		101	13.6		1
01667	Sodium	7440-23-5	77.4	J	101	16.8		1
06969	Tin	7440-31-5	2.26	J	10.1	0.221		1
06970	Titanium	7440-32-6	713		1.01	0.171		1
06971	Vanadium	7440-62-2	22.7		1.01	0.111		1
06972	Zinc	7440-66-6	48.7		4.02	0.201		1
10146	Zirconium	7440-67-7	1.32	J	5.03	0.835		1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.402	U	0.402	0.101		2
06142	Silver	7440-22-4	0.0267	J	0.201	0.0201		2
06144	Strontium	7440-24-6	12.8		0.402	0.0342		2
06145	Thallium	7440-28-0	0.138	J	0.201	0.0302		2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0181	J	0.0198	0.0102		1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	**Std. Units**	
00394	15a pH by 9045C	n.a.	7.39		0.0100	0.0100		1
	The pH was measured in water at 22.2 C.							
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	2.5		0.10	0.10		1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.							

*=This limit was used in the evaluation of the final result
Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-558-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7024690
LLI Group # 1383412
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/16/2013 14:35 by SM

Submitted: 04/17/2013 09:30
Reported: 05/03/2013 10:18

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

55800 SDG#: PH032-08*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Action Limit	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg		ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.148	J	1.00	0.0509		1
11031	12378-PeCDD	40321-76-4	1.96	JB	5.02	0.0885		1
11031	123478-HxCDD	39227-28-6	5.16	B	5.02	0.0606		1
11031	123678-HxCDD	57653-85-7	31.5	B	5.02	0.0598		1
11031	123789-HxCDD	19408-74-3	13.7	B	5.02	0.0582		1
11031	1234678-HpCDD	35822-46-9	726	B	5.02	0.152		1
11031	OCDD	3268-87-9	5,670	EB	10.0	0.103		1
11031	2378-TCDF	51207-31-9	0.138	J	1.00	0.0467		1
11031	12378-PeCDF	57117-41-6	0.320	JB	5.02	0.0318		1
11031	23478-PeCDF	57117-31-4	0.317	JBQ	5.02	0.0325		1
11031	123478-HxCDF	70648-26-9	2.04	JB	5.02	0.0685		1
11031	123678-HxCDF	57117-44-9	1.93	JB	5.02	0.0575		1
11031	123789-HxCDF	72918-21-9	5.02	U	5.02	0.0751		1
11031	234678-HxCDF	60851-34-5	3.03	JB	5.02	0.0623		1
11031	1234678-HpCDF	67562-39-4	59.2	B	5.02	0.0374		1
11031	1234789-HpCDF	55673-89-7	7.49	B	5.02	0.0792		1
11031	OCDF	39001-02-0	145	B	10.0	0.0627		1
Toxic Equivalents	**EPA 1613B**		ng/kg		ng/kg	ng/kg	ng/kg	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	17.5					1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	68	25 - 164
13C12-12378-PeCDD	69	25 - 181
13C12-123478-HxCDD	72	32 - 141
13C12-123678-HxCDD	77	28 - 130
13C12-123789-HxCDD	77	28 - 130
13C12-1234678-HpCDD	71	23 - 140
13C12-OCDD	73	17 - 157
13C12-2378-TCDF	64	24 - 169
13C12-12378-PeCDF	75	24 - 185
13C12-23478-PeCDF	67	21 - 178
13C12-123478-HxCDF	71	26 - 152
13C12-123678-HxCDF	80	26 - 123
13C12-234678-HxCDF	69	28 - 136
13C12-123789-HxCDF	65	29 - 147
13C12-1234678-HpCDF	99	28 - 143
13C12-1234789-HpCDF	54	26 - 138
13C12-OCDF	49	17 - 157

Dioxins/Furans Data Qualifiers:

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

*=This limit was used in the evaluation of the final result
Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-558-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7024690
LLI Group # 1383412
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/16/2013 14:35 by SM

Submitted: 04/17/2013 09:30
Reported: 05/03/2013 10:18

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

55800 SDG#: PH032-08*

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

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

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Analysis Report

Sample Description: SL-558-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7024690
LLI Group # 1383412
Account # 13013

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

55800 SDG#: PH032-08*

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13110SLA026	04/25/2013	16:05	Mark A Clark	1
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13110SLA026	04/27/2013	16:10	Holly Berry	10
10811	BNA Soil Microwave SIM	SW-846 3546	1	13110SLA026	04/21/2013	07:00	Joseph S Feister	1
10592	19a PCBs and PCTs 8082A	SW-846 8082A	1	131100011A	04/23/2013	06:32	Monica M Souders	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	131100011A	04/22/2013	08:00	Olivia Arosemena	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	131090007A	04/23/2013	09:37	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	131090007A	04/19/2013	16:25	JoElla L Rice	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13107001	04/19/2013	09:51	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13107001	04/17/2013	13:00	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010C	1	131070637001	04/21/2013	20:51	Tara L Snyder	1
06944	Antimony	SW-846 6010C	1	131070637001	04/21/2013	20:51	Tara L Snyder	1
06935	Arsenic	SW-846 6010C	1	131070637001	04/21/2013	20:51	Tara L Snyder	1
06946	Barium	SW-846 6010C	1	131070637001	04/21/2013	20:51	Tara L Snyder	1
06947	Beryllium	SW-846 6010C	1	131070637001	04/21/2013	20:51	Tara L Snyder	1
07914	Boron	SW-846 6010C	1	131070637001	04/21/2013	20:51	Tara L Snyder	1
06949	Cadmium	SW-846 6010C	1	131070637001	04/21/2013	20:51	Tara L Snyder	1
01650	Calcium	SW-846 6010C	1	131070637001	04/21/2013	20:51	Tara L Snyder	1
06951	Chromium	SW-846 6010C	1	131070637001	04/21/2013	20:51	Tara L Snyder	1
06952	Cobalt	SW-846 6010C	1	131070637001	04/21/2013	20:51	Tara L Snyder	1
06953	Copper	SW-846 6010C	1	131070637001	04/21/2013	20:51	Tara L Snyder	1
01654	Iron	SW-846 6010C	1	131070637001	04/21/2013	20:51	Tara L Snyder	1
06955	Lead	SW-846 6010C	1	131070637001	04/21/2013	20:51	Tara L Snyder	1
01656	Lithium	SW-846 6010C	1	131070637001	04/21/2013	20:51	Tara L Snyder	1
01657	Magnesium	SW-846 6010C	1	131070637001	04/21/2013	20:51	Tara L Snyder	1
06958	Manganese	SW-846 6010C	1	131070637001	04/21/2013	20:51	Tara L Snyder	1
06960	Molybdenum	SW-846 6010C	1	131070637001	04/21/2013	20:51	Tara L Snyder	1
06961	Nickel	SW-846 6010C	1	131070637001	04/21/2013	20:51	Tara L Snyder	1
10145	Phosphorus	SW-846 6010C	1	131070637001	04/21/2013	20:51	Tara L Snyder	1
01662	Potassium	SW-846 6010C	1	131070637001	04/21/2013	20:51	Tara L Snyder	1
01667	Sodium	SW-846 6010C	1	131070637001	04/21/2013	20:51	Tara L Snyder	1
06969	Tin	SW-846 6010C	1	131070637001	04/21/2013	20:51	Tara L Snyder	1
06970	Titanium	SW-846 6010C	1	131070637001	04/21/2013	20:51	Tara L Snyder	1
06971	Vanadium	SW-846 6010C	1	131070637001	04/21/2013	20:51	Tara L Snyder	1
06972	Zinc	SW-846 6010C	1	131070637001	04/21/2013	20:51	Tara L Snyder	1
10146	Zirconium	SW-846 6010C	1	131070637001	04/21/2013	20:51	Tara L Snyder	1
06141	Selenium	SW-846 6020A	1	131070637001B	04/21/2013	02:44	David K Beck	2
06142	Silver	SW-846 6020A	1	131070637001A	04/21/2013	02:44	David K Beck	2
06144	Strontium	SW-846 6020A	1	131070637001A	04/21/2013	02:44	David K Beck	2

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Analysis Report

Sample Description: SL-558-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7024690
LLI Group # 1383412
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/16/2013 14:35 by SM

Submitted: 04/17/2013 09:30
Reported: 05/03/2013 10:18

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

55800 SDG#: PH032-08*

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06145	Thallium	SW-846 6020A	1	131070637001A	04/21/2013 02:44	David K Beck	2
00159	3a Mercury 7471A	SW-846 7471B	1	131070638001	04/18/2013 08:46	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	131070637001	04/17/2013 23:35	Annamaria Stipkovits	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	131070638001	04/18/2013 02:45	Annamaria Stipkovits	1
00394	15a pH by 9045C	SW-846 9045D modified	1	13107039401B	04/17/2013 17:30	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13112162401B	04/23/2013 22:37	Scott W Freisher	1

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

Client Name: CDM Federal Programs Corp. Group Number: 1383412
Reported: 05/03/13 at 10:18 AM

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: E131111AA	Sample number(s): 7024683									
1,4-Dioxane	2.0	U	2.0	0.5	ug/l	97	107	80-123	11	30
Batch number: Y131141AA	Sample number(s): 7024683									
Acetone	20	U	20.	6	ug/l	83	79	35-181	5	30
Acrolein	100 U		100.	40	ug/l	73	78	46-146	8	30
Acrylonitrile	20	U	20.	4	ug/l	99	94	61-130	5	30
t-Amyl methyl ether	5	U	5.	0.8	ug/l	101	102	66-120	1	30
Benzene	5	U	5.	0.5	ug/l	100	101	77-121	1	30
Bromobenzene	5	U	5.	1	ug/l	100	100	80-120	0	30
Bromochloromethane	5	U	5.	1	ug/l	104	104	80-121	0	30
Bromodichloromethane	5	U	5.	1	ug/l	100	99	73-120	1	30
Bromoform	5	U	5.	1	ug/l	99	98	61-120	1	30
Bromomethane	5	U	5.	1	ug/l	79	78	51-120	2	30
2-Butanone	10	U	10.	3	ug/l	97	94	57-141	3	30
t-Butyl alcohol	50	U	50.	10	ug/l	90	85	75-120	5	30
n-Butylbenzene	5	U	5.	1	ug/l	102	103	73-130	1	30
sec-Butylbenzene	5	U	5.	1	ug/l	103	104	74-124	0	30
tert-Butylbenzene	5	U	5.	1	ug/l	101	103	80-120	2	30
Carbon Disulfide	5	U	5.	1	ug/l	74	74	68-121	0	30
Carbon Tetrachloride	5	U	5.	1	ug/l	100	100	65-137	0	30
Chlorobenzene	5	U	5.	0.8	ug/l	104	104	80-120	0	30
Chloroethane	5	U	5.	1	ug/l	81	79	60-120	3	30
2-Chloroethyl Vinyl Ether	10	U	10.	2	ug/l	106	103	52-127	3	30
Chloroform	5	U	5.	0.8	ug/l	102	103	77-122	1	30
1-Chlorohexane	5	U	5.	1	ug/l	100	100	70-130	1	30
Chloromethane	5	U	5.	1	ug/l	82	81	54-123	2	30
2-Chlorotoluene	5	U	5.	1	ug/l	100	102	80-120	2	30
4-Chlorotoluene	5	U	5.	1	ug/l	101	102	80-120	1	30
Chlorotrifluoroethene	5	U	5.	2	ug/l	60	58	47-120	3	30
1,2-Dibromo-3-chloropropane	5	U	5.	2	ug/l	96	94	56-120	2	30
Dibromochloromethane	5	U	5.	1	ug/l	101	101	72-120	1	30
1,2-Dibromoethane	5	U	5.	1	ug/l	104	105	76-120	1	30
Dibromomethane	5	U	5.	1	ug/l	105	105	80-120	0	30
1,2-Dichlorobenzene	5	U	5.	1	ug/l	105	104	80-120	0	30
1,3-Dichlorobenzene	5	U	5.	1	ug/l	103	103	80-120	1	30
1,4-Dichlorobenzene	5	U	5.	1	ug/l	103	103	80-120	0	30
Dichlorodifluoromethane	5	U	5.	2	ug/l	82	83	35-122	1	30
1,1-Dichloroethane	5	U	5.	1	ug/l	102	103	79-120	1	30
1,2-Dichloroethane	5	U	5.	1	ug/l	106	106	64-130	0	30
1,1-Dichloroethene	5	U	5.	0.8	ug/l	90	91	76-124	0	30
cis-1,2-Dichloroethene	5	U	5.	0.8	ug/l	103	104	80-120	0	30
trans-1,2-Dichloroethene	5	U	5.	0.8	ug/l	100	100	80-120	0	30

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1383412
Reported: 05/03/13 at 10:18 AM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
1,2-Dichloropropane	5	U	5.	1	ug/l	106	106	80-120	0	30
1,3-Dichloropropane	5	U	5.	1	ug/l	102	102	80-120	0	30
2,2-Dichloropropane	5	U	5.	1	ug/l	96	98	67-124	2	30
1,1-Dichloropropene	5	U	5.	1	ug/l	100	101	80-120	1	30
cis-1,3-Dichloropropene	5	U	5.	1	ug/l	98	98	78-120	1	30
trans-1,3-Dichloropropene	5	U	5.	1	ug/l	87	88	66-124	1	30
Ethyl t-butyl ether	5	U	5.	0.8	ug/l	103	102	66-120	1	30
Ethylbenzene	5	U	5.	0.8	ug/l	102	103	79-120	1	30
Freon 113	5	U	5.	2	ug/l	90	89	69-128	1	30
Freon 133a	5	U	5.	2	ug/l	96	96	64-120	1	30
Hexachlorobutadiene	5	U	5.	2	ug/l	95	100	58-120	5	30
2-Hexanone	10	U	10.	3	ug/l	93	92	59-125	1	30
di-Isopropyl ether	5	U	5.	0.8	ug/l	98	98	65-120	0	30
Isopropylbenzene	5	U	5.	1	ug/l	104	106	77-120	2	30
p-Isopropyltoluene	5	U	5.	1	ug/l	104	104	77-121	1	30
Methyl Iodide	5	U	5.	1	ug/l	86	86	71-122	0	30
Methyl Tertiary Butyl Ether	5	U	5.	0.5	ug/l	102	101	68-121	2	30
4-Methyl-2-pentanone	10	U	10.	3	ug/l	97	97	65-122	1	30
Methylene Chloride	5	U	5.	2	ug/l	97	96	84-118	0	30
n-Propylbenzene	5	U	5.	1	ug/l	102	103	77-130	1	30
Styrene	5	U	5.	1	ug/l	104	105	77-120	0	30
1,1,1,2-Tetrachloroethane	5	U	5.	1	ug/l	103	103	79-120	1	30
1,1,2,2-Tetrachloroethane	5	U	5.	1	ug/l	99	99	70-129	0	30
Tetrachloroethene	5	U	5.	0.8	ug/l	103	105	79-120	2	30
Toluene	5	U	5.	0.7	ug/l	101	102	79-120	1	30
1,2,3-Trichlorobenzene	5	U	5.	1	ug/l	98	102	67-120	4	30
1,2,4-Trichlorobenzene	5	U	5.	1	ug/l	100	101	65-120	2	30
1,1,1-Trichloroethane	5	U	5.	0.8	ug/l	96	98	66-126	2	30
1,1,2-Trichloroethane	5	U	5.	0.8	ug/l	105	104	80-120	1	30
Trichloroethene	5	U	5.	1	ug/l	103	104	80-120	1	30
Trichlorofluoromethane	5	U	5.	2	ug/l	88	87	65-130	1	30
1,2,3-Trichloropropane	5	U	5.	1	ug/l	99	98	76-120	1	30
1,2,4-Trimethylbenzene	5	U	5.	1	ug/l	102	103	69-122	1	30
1,3,5-Trimethylbenzene	5	U	5.	1	ug/l	102	103	68-124	1	30
Vinyl Acetate	10	U	10.	2	ug/l	87	94	57-147	8	30
Vinyl Chloride	5	U	5.	1	ug/l	85	87	63-120	3	30
m+p-Xylene	5	U	5.	0.8	ug/l	104	105	77-120	1	30
o-Xylene	5	U	5.	0.8	ug/l	103	104	77-120	1	30
Batch number: 13107WAH026	Sample number(s): 7024683									
Acenaphthene	0.050	U	0.050	0.010	ug/l	105	106	65-124	1	30
Acenaphthylene	0.050	U	0.050	0.010	ug/l	107	109	72-113	2	30
Anthracene	0.050	U	0.050	0.010	ug/l	108	111	70-117	2	30
Benzo(a)anthracene	0.050	U	0.050	0.010	ug/l	110	111	75-115	1	30
Benzo(a)pyrene	0.050	U	0.050	0.010	ug/l	116	119	72-120	3	30
Benzo(b)fluoranthene	0.050	U	0.050	0.010	ug/l	113	115	74-130	2	30
Benzo(e)pyrene	0.050	U	0.050	0.010	ug/l	96	97	70-130	1	30
Benzo(g,h,i)perylene	0.050	U	0.050	0.010	ug/l	106	104	63-121	1	30
Benzo(k)fluoranthene	0.050	U	0.050	0.010	ug/l	112	114	74-118	1	30
Butylbenzylphthalate	1.0	U	1.0	0.050	ug/l	89	88	40-138	1	30
Di-n-butylphthalate	1.0	U	1.0	0.050	ug/l	114	119	70-145	5	30
Chrysene	0.050	U	0.050	0.010	ug/l	108	109	75-112	0	30
Dibenz(a,h)anthracene	0.050	U	0.050	0.010	ug/l	104	101	66-122	2	30
Diethylphthalate	1.0	U	1.0	0.050	ug/l	107	115	74-129	7	30
Dimethylphthalate	1.0	U	1.0	0.050	ug/l	100	98	40-119	2	30
Bis(2-Ethylhexyl)phthalate	0.059	J	1.0	0.050	ug/l	107	84	70-143	24	30

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1383412
Reported: 05/03/13 at 10:18 AM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Fluoranthene	0.050	U	0.050	0.010	ug/l	110	113	73-116	3	30
Fluorene	0.050	U	0.050	0.010	ug/l	105	106	74-115	1	30
Indeno(1,2,3-cd)pyrene	0.050	U	0.050	0.010	ug/l	102	101	66-122	1	30
1-Methylnaphthalene	0.050	U	0.050	0.010	ug/l	113	114	71-120	1	30
2-Methylnaphthalene	0.050	U	0.050	0.010	ug/l	112	114	74-119	2	30
Naphthalene	0.050	U	0.050	0.030	ug/l	106	109	67-118	2	30
N-Nitrosodimethylamine	0.050	U	0.050	0.010	ug/l	86	89	36-120	3	30
Di-n-octylphthalate	1.0	U	1.0	0.050	ug/l	53*	56*	57-145	6	30
Phenanthrene	0.050	U	0.050	0.030	ug/l	105	107	72-109	2	30
Pyrene	0.050	U	0.050	0.010	ug/l	111	110	71-116	1	30
Batch number: 13107WAI026	Sample number(s): 7024683									
Acenaphthene	0.5	U	0.5	0.1	ug/l	105	104	79-110	1	30
Acenaphthylene	0.5	U	0.5	0.1	ug/l	110	109	84-125	2	30
Aniline	1	U	1.	0.5	ug/l	68	66	50-107	4	30
Anthracene	0.5	U	0.5	0.1	ug/l	107	108	82-116	1	30
Benzidine	60	U	60.	20	ug/l	49	41	28-80	17	30
Benzo(a)anthracene	0.5	U	0.5	0.1	ug/l	115	114	79-119	1	30
Benzo(a)pyrene	0.5	U	0.5	0.1	ug/l	113	114	82-116	1	30
Benzo(b)fluoranthene	0.5	U	0.5	0.1	ug/l	109	109	78-119	0	30
Benzo(g,h,i)perylene	0.5	U	0.5	0.1	ug/l	114	114	81-121	0	30
Benzo(k)fluoranthene	0.5	U	0.5	0.1	ug/l	107	108	81-122	1	30
Benzoic acid	15	U	15.	6	ug/l	15	22	10-69	37*	30
Benzyl alcohol	15	U	15.	5	ug/l	92	94	60-106	2	30
1,1'-Biphenyl	1	U	1.	0.5	ug/l	100	98	75-107	2	30
4-Bromophenyl-phenylether	1	U	1.	0.5	ug/l	104	103	75-115	1	30
Butylbenzylphthalate	5	U	5.	2	ug/l	110	111	77-115	1	30
Di-n-butylphthalate	5	U	5.	2	ug/l	104	106	80-115	2	30
Carbazole	1	U	1.	0.5	ug/l	107	107	81-114	0	30
4-Chloro-3-methylphenol	1	U	1.	0.5	ug/l	102	102	77-119	0	30
4-Chloroaniline	1	U	1.	0.5	ug/l	76	75	43-110	2	30
bis(2-Chloroethoxy)methane	1	U	1.	0.5	ug/l	99	98	76-112	0	30
bis(2-Chloroethyl)ether	1	U	1.	0.5	ug/l	100	100	73-112	1	30
bis(2-Chloroisopropyl)ether	1	U	1.	0.5	ug/l	99	98	60-115	1	30
2-Chloronaphthalene	1	U	1.	0.4	ug/l	104	103	56-135	1	30
2-Chlorophenol	1	U	1.	0.5	ug/l	101	102	76-111	1	30
4-Chlorophenyl-phenylether	1	U	1.	0.5	ug/l	101	99	77-114	2	30
Chrysene	0.5	U	0.5	0.1	ug/l	111	109	76-116	2	30
Dibenz(a,h)anthracene	0.5	U	0.5	0.1	ug/l	118	118	83-124	0	30
Dibenzofuran	1	U	1.	0.5	ug/l	103	102	81-110	1	30
1,2-Dichlorobenzene	1	U	1.	0.5	ug/l	97	97	65-107	0	30
1,3-Dichlorobenzene	1	U	1.	0.5	ug/l	95	95	61-111	0	30
1,4-Dichlorobenzene	1	U	1.	0.5	ug/l	95	95	61-109	0	30
3,3'-Dichlorobenzidine	5	U	5.	2	ug/l	97	96	47-108	1	30
2,4-Dichlorophenol	1	U	1.	0.5	ug/l	101	102	84-114	1	30
2,6-Dichlorophenol	1	U	1.	0.5	ug/l	102	104	80-116	2	30
Diethylphthalate	5	U	5.	2	ug/l	101	101	74-115	0	30
2,4-Dimethylphenol	1	U	1.	0.5	ug/l	100	101	78-117	1	30
3,5-Dimethylphenol	10	U	10.	3	ug/l					
Dimethylphthalate	5	U	5.	2	ug/l	94	97	50-127	3	30
4,6-Dinitro-2-methylphenol	15	U	15.	5	ug/l	95	100	76-128	4	30
2,4-Dinitrophenol	30	U	30.	10	ug/l	84	90	45-146	7	30
1,2-Diphenylhydrazine	1	U	1.	0.5	ug/l	105	106	68-127	0	30
bis(2-Ethylhexyl)phthalate	5	U	5.	2	ug/l	113	114	78-117	1	30
Fluoranthene	0.5	U	0.5	0.1	ug/l	108	109	81-121	1	30
Fluorene	0.5	U	0.5	0.1	ug/l	104	104	80-114	0	30

*- Outside of specification
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(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1383412
Reported: 05/03/13 at 10:18 AM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Hexachlorobenzene	0.5	U	0.5	0.1	ug/l	100	102	75-119	2	30
Hexachlorobutadiene	1	U	1.	0.5	ug/l	95	93	61-115	2	30
Hexachlorocyclopentadiene	15	U	15.	5	ug/l	83	87	30-124	4	30
Hexachloroethane	5	U	5.	1	ug/l	90	90	55-109	0	30
Indeno(1,2,3-cd)pyrene	0.5	U	0.5	0.1	ug/l	116	116	83-121	0	30
Isophorone	1	U	1.	0.5	ug/l	101	102	74-117	0	30
1-Methylnaphthalene	0.5	U	0.5	0.1	ug/l	104	104	79-111	0	30
2-Methylnaphthalene	0.5	U	0.5	0.1	ug/l	95	95	80-115	0	30
2-Methylphenol	1	U	1.	0.5	ug/l	95	97	65-115	2	30
4-Methylphenol	1	U	1.	0.5	ug/l	95	96	54-112	1	30
Naphthalene	0.5	U	0.5	0.1	ug/l	97	96	75-108	0	30
NDPA as diphenylamine	5	U	5.	2	ug/l	104	104	70-130	1	30
2-Nitroaniline	1	U	1.	0.5	ug/l	112	114	84-122	2	30
3-Nitroaniline	1	U	1.	0.5	ug/l	88	88	80-120	1	30
4-Nitroaniline	1	U	1.	0.5	ug/l	90	88	61-110	3	30
Nitrobenzene	1	U	1.	0.5	ug/l	101	102	72-116	0	30
2-Nitrophenol	1	U	1.	0.5	ug/l	105	111	84-118	5	30
4-Nitrophenol	30	U	30.	10	ug/l	78*	82*	13-71	5	30
N-Nitroso-di-n-propylamine	1	U	1.	0.5	ug/l	101	100	69-110	0	30
N-Nitrosodimethylamine	5	U	5.	2	ug/l	78	79	37-83	1	30
N-Nitrosodiphenylamine	1	U	1.	0.5	ug/l	104	104	80-115	1	30
Di-n-octylphthalate	5	U	5.	2	ug/l	110	112	72-129	2	30
Pentachlorophenol	5	U	5.	1	ug/l	101	103	55-131	2	30
Phenanthrene	0.5	U	0.5	0.1	ug/l	96	96	76-113	0	30
Phenol	1	U	1.	0.5	ug/l	64	64	26-68	0	30
Pyrene	0.5	U	0.5	0.1	ug/l	104	103	81-112	1	30
Pyridine	5	U	5.	2	ug/l	79	68	13-97	14	30
1,2,4-Trichlorobenzene	1	U	1.	0.5	ug/l	97	96	71-112	1	30
2,4,5-Trichlorophenol	1	U	1.	0.5	ug/l	106	107	80-114	0	30
2,4,6-Trichlorophenol	1	U	1.	0.5	ug/l	110	111	84-119	1	30

Batch number: 13110SLA026 Sample number(s): 7024684-7024688,7024690

Acenaphthene	1.7	U	1.7	0.67	ug/kg	90	69-114
Acenaphthylene	1.7	U	1.7	0.33	ug/kg	97	71-113
Anthracene	1.7	U	1.7	0.33	ug/kg	104	75-116
Benzo(a)anthracene	1.7	U	1.7	0.67	ug/kg	103	76-115
Benzo(a)pyrene	1.7	U	1.7	0.67	ug/kg	94	76-117
Benzo(b)fluoranthene	1.7	U	1.7	0.67	ug/kg	103	77-129
Benzo(e)pyrene	17	U	17.	3.3	ug/kg	85	70-130
Benzo(g,h,i)perylene	1.7	U	1.7	0.67	ug/kg	98	64-120
Benzo(k)fluoranthene	1.7	U	1.7	0.67	ug/kg	92	71-120
Butylbenzylphthalate	18	U	18.	6.0	ug/kg	95	65-131
Di-n-butylphthalate	18	U	18.	6.0	ug/kg	90	67-140
Chrysene	1.7	U	1.7	0.33	ug/kg	102	78-111
Dibenz(a,h)anthracene	1.7	U	1.7	0.67	ug/kg	97	65-124
Diethylphthalate	18	U	18.	6.0	ug/kg	90	68-125
Dimethylphthalate	18	U	18.	6.0	ug/kg	91	70-130
Bis(2-Ethylhexyl)phthalate	18	U	18.	6.0	ug/kg	95	67-143
Fluoranthene	1.7	U	1.7	0.67	ug/kg	95	68-119
Fluorene	1.7	U	1.7	0.67	ug/kg	116	75-123
Indeno(1,2,3-cd)pyrene	1.7	U	1.7	0.67	ug/kg	97	66-122
1-Methylnaphthalene	1.7	U	1.7	0.67	ug/kg	105	74-113
2-Methylnaphthalene	1.7	U	1.7	0.67	ug/kg	101	78-121
Naphthalene	1.7	U	1.7	0.67	ug/kg	96	64-120
N-Nitrosodimethylamine	1.7	U	1.7	0.67	ug/kg	121	30-125
Di-n-octylphthalate	18	U	18.	6.0	ug/kg	88	57-133

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1383412
Reported: 05/03/13 at 10:18 AM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Phenanthrene	1.7	U	1.7	0.67	ug/kg	105		72-110		
Pyrene	1.7	U	1.7	0.67	ug/kg	101		71-120		
Batch number: 13108A16A	Sample number(s): 7024685,7024687									
11a TPH by EPA 8015B GRO	1.0	U	1.0	0.2	mg/kg	89	82	67-119	8	30
Batch number: 13108B20A	Sample number(s): 7024683,7024689									
TPH-GRO S.CA water C5-C12	50	U	50.	20	ug/l	106	105	75-135	1	30
Batch number: 131120017A	Sample number(s): 7024683									
4-Amino-2,6-Dinitrotoluene	0.60	U	0.60	0.30	ug/l	128*	128*	80-120	0	30
2-Amino-4,6-Dinitrotoluene	0.60	U	0.60	0.20	ug/l	92	92	74-104	0	30
2,6-Diamino-4-nitrotoluene	0.60	U	0.60	0.20	ug/l	97	97	50-122	0	30
2,4-Diamino-6-nitrotoluene	0.60	U	0.60	0.20	ug/l	97	97	50-122	0	30
1,3-Dinitrobenzene	0.60	U	0.60	0.20	ug/l	103	104	76-116	1	30
2,4-Dinitrotoluene	0.60	U	0.60	0.20	ug/l	95	96	76-104	1	30
2,6-Dinitrotoluene	0.60	U	0.60	0.20	ug/l	119*	119*	79-114	0	30
HMX	2.0	U	2.0	0.65	ug/l	94	96	73-104	2	30
Nitrobenzene	0.60	U	0.60	0.20	ug/l	95	94	71-111	1	30
Nitroglycerin	15	U	15.	5.2	ug/l	99	100	83-104	1	30
2-Nitrotoluene	0.60	U	0.60	0.20	ug/l	97	99	78-102	2	30
3-Nitrotoluene	1.2	U	1.2	0.40	ug/l	98	100	81-107	2	30
4-Nitrotoluene	1.2	U	1.2	0.60	ug/l	103	103	76-105	1	30
PETN	18	U	18.	6.0	ug/l	110	111	88-128	1	30
RDX	0.60	U	0.60	0.20	ug/l	98	101	74-107	2	30
Tetryl	0.60	U	0.60	0.40	ug/l	101	101	31-148	0	30
1,3,5-Trinitrobenzene	0.60	U	0.60	0.20	ug/l	102	104	80-111	2	30
2,4,6-Trinitrotoluene	0.60	U	0.60	0.20	ug/l	101	101	76-109	1	30
Batch number: 131080014A	Sample number(s): 7024683									
19b Formaldehyde 8315A	50	U	50.	30	ug/l	97	97	60-140	0	20
Batch number: 131120003A	Sample number(s): 7024683									
2,4-D	0.50	U	0.50	0.16	ug/l	115	87	68-155	27	30
Dalapon	1.3	U	1.3	0.25	ug/l	89	59	39-115	40*	30
2,4-DB	1.0	U	1.0	0.30	ug/l	120	91	50-163	27	30
Dicamba	0.30	U	0.30	0.080	ug/l	97	71	55-163	31*	30
Dinoseb	0.50	U	0.50	0.12	ug/l	119	85	16-163	34*	30
2,4-DP (Dichlorprop)	0.50	U	0.50	0.16	ug/l	102	77*	89-162	28	30
MCPA	200 U		200.	50	ug/l	100	74	68-154	30	30
MCPP	200 U		200.	50	ug/l	109	76	46-173	36*	30
2,4,5-T	0.050	U	0.050	0.015	ug/l	123	90	55-169	31*	30
2,4,5-TP	0.050	U	0.050	0.010	ug/l	102	77	58-155	27	30
Batch number: 131130024A	Sample number(s): 7024683									
6b Perchlorate (Method 6850)	1.0	U	1.0	0.20	ug/l	101	103	85-115	2	20
Batch number: 131100011A	Sample number(s): 7024684-7024688,7024690									
Aroclor 5432	33	U	33.	10	ug/kg					
Aroclor 5442	33	U	33.	10	ug/kg	75	75	36-106	0	30
Aroclor 5460	33	U	33.	10	ug/kg					
PCB-1016	17	U	17.	3.3	ug/kg	103		80-120		
PCB-1221	17	U	17.	5.1	ug/kg					
PCB-1232	17	U	17.	4.1	ug/kg					

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1383412
Reported: 05/03/13 at 10:18 AM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
PCB-1242	17	U	17.	3.3	ug/kg					
PCB-1248	17	U	17.	3.3	ug/kg					
PCB-1254	17	U	17.	4.4	ug/kg					
PCB-1260	17	U	17.	3.9	ug/kg	115		72-120		
PCB-1262	17	U	17.	3.3	ug/kg					
PCB-1268	17	U	17.	3.3	ug/kg					
Batch number: 131120021A	Sample number(s): 7024683									
Aroclor 5432	0.40	U	0.40	0.080	ug/l					
Aroclor 5442	0.40	U	0.40	0.080	ug/l	72	64	35-84	11	30
Aroclor 5460	0.40	U	0.40	0.080	ug/l					
PCB-1016	0.40	U	0.40	0.080	ug/l	102	105	69-120	2	30
PCB-1221	0.40	U	0.40	0.080	ug/l					
PCB-1232	0.40	U	0.40	0.16	ug/l					
PCB-1242	0.40	U	0.40	0.080	ug/l					
PCB-1248	0.40	U	0.40	0.080	ug/l					
PCB-1254	0.40	U	0.40	0.080	ug/l					
PCB-1260	0.40	U	0.40	0.12	ug/l	108	111	69-128	3	30
PCB-1262	0.40	U	0.40	0.16	ug/l					
PCB-1268	0.40	U	0.40	0.13	ug/l					
Batch number: 131120022A	Sample number(s): 7024683									
Aldrin	0.0080	U	0.0080	0.0016	ug/l	74	88	55-126	17	30
Alpha BHC	0.0080	U	0.0080	0.0024	ug/l	82	92	63-132	11	30
Beta BHC	0.0080	U	0.0080	0.0027	ug/l	78	87	63-132	11	30
Gamma BHC - Lindane	0.0080	U	0.0080	0.0016	ug/l	83	92	68-128	10	30
Chlordane	0.40	U	0.40	0.13	ug/l					
p,p-DDD	0.016	U	0.016	0.0040	ug/l	76	89	62-143	16	30
p,p-DDE	0.016	U	0.016	0.0040	ug/l	83	93	56-137	12	30
p,p-DDT	0.016	U	0.016	0.0042	ug/l	78	92	45-134	17	30
Delta BHC	0.0080	U	0.0080	0.0027	ug/l	83	90	63-131	9	30
Dieldrin	0.016	U	0.016	0.0042	ug/l	83	92	65-135	11	30
Endosulfan I	0.0080	U	0.0080	0.0034	ug/l	81	91	48-124	11	30
Endosulfan II	0.016	U	0.016	0.012	ug/l	77	88	53-123	14	30
Endosulfan Sulfate	0.016	U	0.016	0.0046	ug/l	74	85	60-129	13	30
Endrin	0.016	U	0.016	0.0065	ug/l	81	90	43-139	11	30
Endrin Aldehyde	0.080	U	0.080	0.016	ug/l	69	78	55-123	12	20
Endrin Ketone	0.016	U	0.016	0.0040	ug/l	68	82	51-138	18	30
Heptachlor	0.0080	U	0.0080	0.0016	ug/l	73	85	57-126	16	30
Heptachlor Epoxide	0.0080	U	0.0080	0.0018	ug/l	79	88	65-128	11	30
Methoxychlor	0.080	U	0.080	0.024	ug/l	80	91	46-134	14	30
Mirex	0.20	U	0.20	0.068	ug/l					
Toxaphene	2.4	U	2.4	0.80	ug/l					
Batch number: 131130028A	Sample number(s): 7024683									
Diethylene glycol	10	U	10.	8.0	mg/l	90		61-123		
Ethylene glycol	10	U	10.	8.0	mg/l	97		63-128		
Propylene glycol	10	U	10.	8.0	mg/l	94		62-136		
Triethylene glycol	10	U	10.	8.0	mg/l	86		66-129		
Batch number: 131140019A	Sample number(s): 7024683									
Ethanol	1,000 U		1,000.	200	ug/l	94		78-116		
Isopropanol	1,000 U		1,000.	200	ug/l	97		67-120		
Methanol	1,000		1,000.	200	ug/l	92		79-120		

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1383412
Reported: 05/03/13 at 10:18 AM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
	U									
Batch number: 131070015A	Sample number(s): 7024683									
EFH (C12-C14)	0.60	U	0.60	0.10	mg/l	97	95	70-130	3	30
EFH (C15-C20)	0.60	U	0.60	0.10	mg/l	109	107	70-130	2	30
EFH (C21-C30)	0.60	U	0.60	0.10	mg/l	102	99	70-130	2	30
EFH (C30 - C40)	0.60	U	0.60	0.10	mg/l	70	69*	70-130	2	30
EFH (C8-C11)	0.60	U	0.60	0.10	mg/l	84	81	70-130	3	30
Batch number: 131080007A	Sample number(s): 7024683									
m-Terphenyl	0.0050	U	0.0050	0.0020	mg/l	82	85	61-108	4	20
o-Terphenyl	0.0050	U	0.0050	0.0020	mg/l	83	87	75-125	4	20
p-Terphenyl	0.0050	U	0.0050	0.0020	mg/l	97	101	63-110	4	20
Batch number: 131090007A	Sample number(s): 7024684-7024688,7024690									
EFH (C12-C14)	5.0	U	5.0	2.0	mg/kg	89		70-123		
EFH (C15-C20)	5.0	U	5.0	2.0	mg/kg	91		75-128		
EFH (C21-C30)	5.0	U	5.0	2.0	mg/kg	92		64-134		
EFH (C30-C40)	10	U	10.	4.0	mg/kg	67		65-128		
EFH (C8-C11)	5.0	U	5.0	2.0	mg/kg	76		49-107		
Batch number: 131070637001	Sample number(s): 7024684-7024688,7024690									
Aluminum	40.0	U	40.0	7.71	mg/kg	99		80-120		
Antimony	4.00	U	4.00	0.500	mg/kg	101		80-120		
Arsenic	4.00	U	4.00	0.330	mg/kg	109		80-120		
Barium	1.00	U	1.00	0.0330	mg/kg	104		80-120		
Beryllium	1.00	U	1.00	0.0670	mg/kg	102		80-120		
Boron	10.0	U	10.0	0.830	mg/kg	96		80-120		
Cadmium	1.00	U	1.00	0.0330	mg/kg	106		80-120		
Calcium	20.0	U	20.0	4.02	mg/kg	101		80-120		
Chromium	3.00	U	3.00	0.0880	mg/kg	100		80-120		
Cobalt	1.00	U	1.00	0.0900	mg/kg	106		80-120		
Copper	2.00	U	2.00	0.180	mg/kg	103		80-120		
Iron	40.0	U	40.0	3.80	mg/kg	103		80-120		
Lead	3.00	U	3.00	0.470	mg/kg	106		80-120		
Lithium	4.0	U	4.0	0.55	mg/kg	103		80-120		
Magnesium	1.82	J	10.0	1.73	mg/kg	99		80-120		
Manganese	1.00	U	1.00	0.0830	mg/kg	104		80-120		
Molybdenum	2.00	U	2.00	0.170	mg/kg	100		80-120		
Nickel	2.00	U	2.00	0.110	mg/kg	107		80-120		
Phosphorus	10.9		10.0	0.510	mg/kg	116		80-120		
Potassium	100		100.	13.5	mg/kg	101		80-120		
	U									
Sodium	100		100.	16.7	mg/kg	99		80-120		
	U									
Tin	1.40	J	10.0	0.220	mg/kg	101		80-120		
Titanium	1.00	U	1.00	0.170	mg/kg	102		80-120		
Vanadium	1.00	U	1.00	0.110	mg/kg	98		80-120		
Zinc	4.00	U	4.00	0.200	mg/kg	108		80-120		
Zirconium	5.00	U	5.00	0.830	mg/kg	101		80-120		
Batch number: 131070637001A	Sample number(s): 7024684-7024688,7024690									
Silver	0.200	U	0.200	0.0200	mg/kg	110		80-120		
Strontium	0.400	U	0.400	0.0340	mg/kg	111		80-120		
Thallium	0.200	U	0.200	0.0300	mg/kg	97		80-120		

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1383412
Reported: 05/03/13 at 10:18 AM

Analysis Name	Blank Result	Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 131070637001B	Sample number(s): 7024684-7024688,7024690								
Selenium	0.400 U	0.400	0.100	mg/kg	117		80-120		
Batch number: 131070638001	Sample number(s): 7024684-7024688,7024690								
3a Mercury 7471A	0.0167 U	0.0167	0.0103	mg/kg	109		85-120		
Batch number: 131080639002A	Sample number(s): 7024683								
Silver	0.0010 U	0.0010	0.00010	mg/l	103	107	90-115	3	20
Strontium	0.0020 U	0.0020	0.00022	mg/l	100	102	80-120	2	20
Thallium	0.0010 U	0.0010	0.00015	mg/l	101	103	80-120	2	20
Batch number: 131080639002B	Sample number(s): 7024683								
Selenium	0.0040 U	0.0040	0.00050	mg/l	103	104	80-120	1	20
Batch number: 131125713006	Sample number(s): 7024683								
3b Mercury 7470A	0.00020 U	0.00020	0.00007 0	mg/l	93	94	90-115	0	20
Batch number: 131140635001	Sample number(s): 7024683								
Aluminum	0.400 U	0.400	0.0743	mg/l	117*	118*	90-112	1	20
Antimony	0.0400 U	0.0400	0.0035	mg/l	107	107	88-111	0	20
Arsenic	0.0400 U	0.0400	0.0068	mg/l	107	108	90-113	1	20
Barium	0.0100 U	0.0100	0.00033	mg/l	108	109	90-110	1	20
Beryllium	0.0100 U	0.0100	0.00067	mg/l	105	107	88-110	2	20
Boron	0.100 U	0.100	0.0083	mg/l	97	99	89-110	2	20
Cadmium	0.0100 U	0.0100	0.00036	mg/l	109	110	90-112	2	20
Calcium	0.400 U	0.400	0.0640	mg/l	116*	117*	90-110	1	20
Chromium	0.0300 U	0.0300	0.0011	mg/l	102	103	90-110	2	20
Cobalt	0.0100 U	0.0100	0.00066	mg/l	109	110	90-110	1	20
Copper	0.0024 J	0.0200	0.0021	mg/l	107	109	90-112	2	20
Iron	0.400 U	0.400	0.0333	mg/l	116*	117*	90-112	1	20
Lead	0.0300 U	0.0300	0.0051	mg/l	107	110	88-110	3	20
Lithium	0.0400 U	0.0400	0.0060	mg/l	107	108	90-110	1	20
Magnesium	0.200 U	0.200	0.0606	mg/l	115*	116*	90-110	1	20
Manganese	0.0100 U	0.0100	0.00083	mg/l	107	109	90-110	2	20
Molybdenum	0.0200 U	0.0200	0.0029	mg/l	106	108	90-110	2	20
Nickel	0.0200 U	0.0200	0.0011	mg/l	110	112*	90-111	2	20
Potassium	1.00 U	1.00	0.145	mg/l	113	114	85-115	1	20
Sodium	2.00 U	2.00	0.167	mg/l	113	115*	87-114	1	20
Tin	0.0400 U	0.0400	0.0022	mg/l	102	103	90-110	1	20
Titanium	0.0200 U	0.0200	0.0017	mg/l	104	106	90-113	2	20
Vanadium	0.0100 U	0.0100	0.0013	mg/l	104	106	90-110	2	20
Zinc	0.0400 U	0.0400	0.0020	mg/l	109	110	90-110	1	20
Zirconium	0.100 U	0.100	0.0092	mg/l	105	107	90-110	2	20
Batch number: 131180635001	Sample number(s): 7024683								
Phosphorus	0.200 U	0.200	0.0052	mg/l	99	100	90-110	1	20
Batch number: 13107495301B	Sample number(s): 7024683								
2b Chromium VI by EPA 7199	10.0 U	10.0	5.0	ug/l	94	98	90-110	4	20
Batch number: 13107655902A	Sample number(s): 7024683								
1b Anions by 300.0-Bromide	0.50 U	0.50	0.40	mg/l	101	102	90-110	1	20
1b Anions by 300.0-Chloride	0.40 U	0.40	0.20	mg/l	100	102	90-110	2	20
1b Anions by 300.0-Fluoride	0.10 U	0.10	0.080	mg/l	103	102	90-110	2	20
1b Anions by 300.0-Nitrate	0.10 U	0.10	0.050	mg/l	102	102	90-110	0	20

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1383412
Reported: 05/03/13 at 10:18 AM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
1b Anions by 300.0-Nitrite	0.10	U	0.10	0.080	mg/l	98	100	90-110	2	20
1b Anions by 300.0-Orthophosph	0.50	U	0.50	0.20	mg/l	100	101	90-110	1	20
1b Anions by 300.0-Sulfate	1.0	U	1.0	0.30	mg/l	100	102	90-110	2	20
Batch number: 13113117101A	Sample number(s): 7024683									
16b Cyanide by EPA 9012B	0.010	U	0.010	0.0050	mg/l	100	105	90-110	5	15
Batch number: 13107002101A	Sample number(s): 7024683									
28b. pH (9040B and 9040C)						100		99-103		
Batch number: 13107039401B	Sample number(s): 7024684-7024688,7024690									
15a pH by 9045C						100		95-105		
Batch number: 13122003201A	Sample number(s): 7024683									
15b Ammonia by EPA 350.3	0.20	U	0.20	0.050	mg/l	98		90-110		
Batch number: 13112162401B	Sample number(s): 7024684-7024688,7024690									
14a Moisture Content by 160.3						100		80-120		

Analysis Name	Blank Result		Blank MRL**	Blank EDL	Report Units	OPR %REC	OPRD %REC	OPR/OPRD Limits	RPD	RPD Max
Batch number: 13107001	Sample number(s): 7024684-7024688,7024690									
2378-TCDD	1.00	U	1.00	0.0192	ng/kg	90		67-158		
12378-PeCDD	0.0350	J	5.00	0.0205	ng/kg	94		70-142		
123478-HxCDD	0.0185	J	5.00	0.0151	ng/kg	99		70-164		
123678-HxCDD	0.0275	J	5.00	0.0157	ng/kg	95		76-134		
123789-HxCDD	0.0437	J	5.00	0.0155	ng/kg	98		64-162		
1234678-HpCDD	0.0818	J	5.00	0.0175	ng/kg	95		70-140		
OCDD	0.151	J	10.0	0.0174	ng/kg	97		78-144		
2378-TCDF	1.00	U	1.00	0.0177	ng/kg	96		75-158		
12378-PeCDF	0.0538	J	5.00	0.0111	ng/kg	96		80-134		
23478-PeCDF	0.0482	J	5.00	0.0112	ng/kg	98		68-160		
123478-HxCDF	0.0425	J	5.00	0.0107	ng/kg	100		72-134		
123678-HxCDF	0.0316	J	5.00	0.00978	ng/kg	95		84-130		
123789-HxCDF	0.0663	J	5.00	0.0122	ng/kg	98		78-130		
234678-HxCDF	0.0359	J	5.00	0.0103	ng/kg	98		70-156		
1234678-HpCDF	0.0623	J	5.00	0.00596	ng/kg	97		82-122		
1234789-HpCDF	0.0596	J	5.00	0.0104	ng/kg	98		78-138		
OCDF	0.164	J	10.0	0.0311	ng/kg	98		63-170		
Batch number: 13112001	Sample number(s): 7024683									
2378-TCDD	2.00	U	2.00	0.166	pg/l	89		60-150		
12378-PeCDD	0.478	J	10.0	0.221	pg/l	93		60-150		
123478-HxCDD	10.0	U	10.0	0.130	pg/l	88		60-150		
123678-HxCDD	0.209	J	10.0	0.137	pg/l	90		60-150		
123789-HxCDD	0.143	J	10.0	0.128	pg/l	91		60-150		
1234678-HpCDD	0.304	J	10.0	0.152	pg/l	93		60-150		
OCDD	0.400	J	20.0	0.297	pg/l	91		60-150		
2378-TCDF	2.00	U	2.00	0.162	pg/l	91		60-150		
12378-PeCDF	0.459	J	10.0	0.131	pg/l	92		60-150		
23478-PeCDF	0.221	J	10.0	0.127	pg/l	91		60-150		
123478-HxCDF	10.0	U	10.0	0.0895	pg/l	93		60-150		
123678-HxCDF	0.192	J	10.0	0.0871	pg/l	91		60-150		
123789-HxCDF	0.213	J	10.0	0.0779	pg/l	92		60-150		

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1383412
Reported: 05/03/13 at 10:18 AM

Analysis Name	Blank Result		Blank MRL**	Blank EDL	Report Units	OPR %REC	OPRD %REC	OPR/OPRD Limits	RPD	RPD Max
234678-HxCDF	0.148	J	10.0	0.0830	pg/l	90		60-150		
1234678-HpCDF	0.268	J	10.0	0.0605	pg/l	91		60-150		
1234789-HpCDF	0.249	J	10.0	0.0770	pg/l	91		60-150		
OCDF	0.832	J	20.0	0.210	pg/l	89		60-150		
Batch number: 13107001	Sample number(s): 7024684-7024688,7024690									
TEQ WHO 2005 - EDLx0.0	0.0205				ng/kg					
Batch number: 13112001	Sample number(s): 7024683									
TEQ WHO 2005 - EDLx0.0	U				pg/l					

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 13110SLA026	Sample number(s): 7024684-7024688,7024690 UNSPK: P022144								
Acenaphthene	97	92	48-127	5	30				
Acenaphthylene	104	96	49-121	7	30				
Anthracene	102	97	52-126	5	30				
Benzo(a)anthracene	108	93	32-135	15	30				
Benzo(a)pyrene	100	86	36-138	15	30				
Benzo(b)fluoranthene	109	88	26-142	20	30				
Benzo(e)pyrene	91	77	70-130	17	30				
Benzo(g,h,i)perylene	81	82	33-141	2	30				
Benzo(k)fluoranthene	103	90	47-129	13	30				
Butylbenzylphthalate	107	88	59-153	19	30				
Di-n-butylphthalate	88	79	62-154	10	30				
Chrysene	107	86	29-148	21	30				
Dibenz(a,h)anthracene	86	89	34-125	4	30				
Diethylphthalate	84	88	76-127	5	30				
Dimethylphthalate	93	88	62-136	6	30				
Bis(2-Ethylhexyl)phthalate	129	116	39-167	11	30				
Fluoranthene	100	72	47-135	30	30				
Fluorene	110	108	50-129	3	30				
Indeno(1,2,3-cd)pyrene	84	86	17-136	2	30				
1-Methylnaphthalene	102	98	50-131	4	30				
2-Methylnaphthalene	100	98	28-144	2	30				
Naphthalene	95	91	31-148	4	30				
N-Nitrosodimethylamine	85	108	48-113	23	30				
Di-n-octylphthalate	85	72	52-162	16	30				
Phenanthrene	115	99	29-142	15	30				
Pyrene	110	64	26-143	49*	30				
Batch number: 131100011A	Sample number(s): 7024684-7024688,7024690 UNSPK: P023137								
PCB-1016	94	93	16-146	1	50				
PCB-1260	99	99	40-134	1	50				

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Quality Control Summary

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Reported: 05/03/13 at 10:18 AM

Sample Matrix Quality Control

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Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 131130028A	Sample number(s): 7024683 UNSPK: 7024683								
Diethylene glycol	91	92	50-166	1	20				
Ethylene glycol	97	98	50-155	2	20				
Propylene glycol	96	96	54-145	0	20				
Triethylene glycol	86	88	50-133	2	20				
Batch number: 131140019A	Sample number(s): 7024683 UNSPK: 7024683								
Ethanol	99	97	62-145	3	20				
Isopropanol	99	100	73-131	0	20				
Methanol	98	96	52-159	2	20				
Batch number: 131090007A	Sample number(s): 7024684-7024688,7024690 UNSPK: P023136								
EFH (C12-C14)	101	94	49-123	7	20				
EFH (C15-C20)	81	58	49-123	13	20				
EFH (C21-C30)	130*	52	49-123	28*	20				
EFH (C30-C40)	163*	98	49-123	19	20				
EFH (C8-C11)	88	88	49-123	0	20				
Batch number: 131070637001	Sample number(s): 7024684-7024688,7024690 UNSPK: P022144 BKG: P022144								
Aluminum	1359 (2)	1600 (2)	75-125	3	20	10,500	10,800	2	20
Antimony	70*	73*	75-125	4	20	1.54 J	1.48 J	4 (1)	20
Arsenic	111	108	75-125	2	20	2.01 J	2.79 J	32* (1)	20
Barium	105	100	75-125	3	20	70.2	68.6	2	20
Beryllium	99	99	75-125	1	20	0.469 J	0.472 J	1 (1)	20
Boron	94	95	75-125	0	20	3.12 J	3.00 J	4 (1)	20
Cadmium	105	104	75-125	1	20	0.409 J	0.437 J	7 (1)	20
Calcium	67 (2)	102 (2)	75-125	4	20	3,060	2,860	7	20
Chromium	103	118	75-125	8	20	18.0	17.9	1	20
Cobalt	101	100	75-125	1	20	4.98	4.86	3	20
Copper	101	101	75-125	0	20	5.00	5.12	2 (1)	20
Iron	1525 (2)	1576 (2)	75-125	0	20	18,500	19,000	3	20
Lead	106	104	75-125	1	20	5.00	5.37	7 (1)	20
Lithium	104	105	75-125	1	20	22.9	23.7	3	20
Magnesium	277 (2)	267 (2)	75-125	0	20	3,970	3,970	0	20
Manganese	107 (2)	104 (2)	75-125	0	20	275	269	2	20
Molybdenum	96	96	75-125	0	20	1.19 J	0.434 J	93* (1)	20
Nickel	100	99	75-125	1	20	8.44	8.47	0 (1)	20
Phosphorus	98	132*	75-125	7	20	357	368	3	20
Potassium	129*	124	75-125	1	20	2,680	2,750	2	20
Sodium	96	97	75-125	2	20	59.7 J	60.9 J	2 (1)	20
Tin	92	91	75-125	0	20	2.85 J	2.68 J	6 (1)	20
Titanium	243 (2)	230 (2)	75-125	1	20	1,030	1,050	2	20
Vanadium	100	99	75-125	1	20	28.1	28.2	0	20
Zinc	112	111	75-125	0	20	53.7	54.2	1	20
Zirconium	95	94	75-125	1	20	1.08 J	1.96 J	57* (1)	20
Batch number: 131070637001A	Sample number(s): 7024684-7024688,7024690 UNSPK: P022144 BKG: P022144								
Silver	100	101	75-125	1	20	0.0299 J	0.0323 J	8 (1)	20
Strontium	89	103	75-125	6	20	11.7	11.4	2	20

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1383412
Reported: 05/03/13 at 10:18 AM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Thallium	105	98	75-125	5	20	0.226	0.220	3 (1)	20
Batch number: 131070637001B	Sample number(s): 7024684-7024688,7024690 UNSPK: P022144 BKG: P022144								
Selenium	116	111	75-125	4	20	0.385 U	0.385 U	0 (1)	20
Batch number: 131070638001	Sample number(s): 7024684-7024688,7024690 UNSPK: P022144 BKG: P022144								
3a Mercury 7471A	112	111	65-135	1	20	0.0197 U	0.0198 U	0 (1)	20
Batch number: 13107002101A	Sample number(s): 7024683 BKG: P024806								
28b. pH (9040B and 9040C)						7.1	7.2	1	3
Batch number: 13107039401B	Sample number(s): 7024684-7024688,7024690 BKG: P023140								
15a pH by 9045C						6.85	6.87	0	3
Batch number: 13122003201A	Sample number(s): 7024683 UNSPK: P032181 BKG: P032181								
15b Ammonia by EPA 350.3	83	76	28-141	8	10	0.68	0.99	37* (1)	20
Batch number: 13112162401B	Sample number(s): 7024684-7024688,7024690 BKG: 7024684								
14a Moisture Content by 160.3						3.2	3.4	7	20

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed
unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 13b 1,4-Dioxane by 8260B SIM
Batch number: E131111AA

	Toluene-d8
7024683	88
Blank	88
LCS	88
LCSD	88
Limits:	80-120

Analysis Name: 12b Volatile Organics EPA8260B
Batch number: Y131141AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7024683	101	101	97	95
Blank	101	100	97	95
LCS	100	103	99	100
LCSD	100	102	100	100
Limits:	86-118	80-120	88-110	86-115

Analysis Name: 7b SVOC SIM EPA 8270D
Batch number: 13107WAH026

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1383412
Reported: 05/03/13 at 10:18 AM

Surrogate Quality Control

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
7024683	106	124	100
Blank	79	87	77
LCS	105	125	102
LCSD	107	125	102
Limits:	64-120	62-141	58-134

Analysis Name: 8b SVOCs by EPA 8270D
Batch number: 13107WAI026

	Phenol-d6	2-Fluorophenol	2,4,6-Tribromophenol	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
7024683	45	66	88	87	91	100
Blank	60	76	100	105	111	105
LCS	60	79	105	99	104	107
LCSD	60	78	103	99	103	106
Limits:	20-110	20-110	30-110	40-130	45-130	45-130

Analysis Name: 7a SVOC SIM EPA 8270D
Batch number: 13110SLA026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
7024684	64	99	96
7024685	75	62	94
7024686	69	99	94
7024687	71	91	94
7024688	56	68	77
7024690	70	89	97
Blank	83	91	96
LCS	82	91	101
MS	78	92	95
MSD	69	89	97
Limits:	54-129	61-134	55-129

Analysis Name: 11a TPH by EPA 8015B GRO
Batch number: 13108A16A

	Trifluorotoluene-F
7024685	83
7024687	77
Blank	88
LCS	86
LCSD	80
Limits:	61-122

Analysis Name: 11b TPH by EPA 8015B GRO
Batch number: 13108B20A

	Trifluorotoluene-F

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1383412
Reported: 05/03/13 at 10:18 AM

Surrogate Quality Control

7024683	90
7024689	91
Blank	88
LCS	114
LCSD	117
Limits:	63-135

Analysis Name: 19b Formaldehyde 8315A
Batch number: 131080014A

	Butyraldehyde
7024683	113
Blank	87
LCS	108
LCSD	104
Limits:	45-145

Analysis Name: 19a PCBs and PCTs 8082A
Batch number: 131100011A

	Tetrachloro-m-xylene	Decachlorobiphenyl
7024684	115	86
7024685	84	88
7024686	112	87
7024687	124*	102
7024688	104	85
7024690	118	96
Blank	129*	111
LCS	130*	120
LCSD	130*	122*
MS	122*	107
MSD	125*	108
Limits:	45-120	45-120

Analysis Name: 24b Herbicides by EPA 8151A
Batch number: 131120003A

	2,4-Dichlorophenylacetic acid
7024683	97
Blank	88
LCS	101
LCSD	78
Limits:	50-150

Analysis Name: 18b Energetics by 8330A
Batch number: 131120017A

	2-Nitro-m-xylene
7024683	97
Blank	97
LCS	95

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(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1383412
Reported: 05/03/13 at 10:18 AM

Surrogate Quality Control

LCSD	102	
Limits:	80-146	

Analysis Name: 21b PCBs and PCTs 8082A
Batch number: 131120021A

	Tetrachloro-m-xylene	Decachlorobiphenyl
7024683	126*	108
Blank	126*	96
LCS	117	71
LCSD	118	101
Limits:	45-120	45-120

Analysis Name: 22b Pesticides by EPA 8081B
Batch number: 131120022A

	Tetrachloro-m-xylene	Decachlorobiphenyl
7024683	100	93
Blank	93	80
LCS	85	66
LCSD	94	84
Limits:	60-140	20-120

Analysis Name: 10b TPH by EPA 8015B (DRO)
Batch number: 131070015A

	Chlorobenzene	Orthoterphenyl
7024683	87	85
Blank	96	88
LCS	101	80
LCSD	100	80
Limits:	45-126	69-119

Analysis Name: 23b Terphenyls by 8015B
Batch number: 131080007A

	n-Triacontane-d62
7024683	96
Blank	86
LCS	86
LCSD	86
Limits:	36-160

Analysis Name: 10a TPH by EPA 8015B (DRO)
Batch number: 131090007A

	Chlorobenzene	Orthoterphenyl
7024684	89	87
7024685	88	87
7024686	89	88
7024687	91	89

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1383412
Reported: 05/03/13 at 10:18 AM

Surrogate Quality Control

7024688	86	80
7024690	96	89
Blank	90	90
LCS	87	87
MS	88	86
MSD	83	82
Limits:	37-125	66-123

Analysis Name: 20b Glycols by EPA 8015C
Batch number: 131130028A

	Tetramethylene glycol
7024683	87
Blank	96
LCS	90
MS	89
MSD	91
Limits:	58-141

Analysis Name: 14b Alcohols by EPA 8015C
Batch number: 131140019A

	Acetone
7024683	96
Blank	94
LCS	92
MS	92
MSD	94
Limits:	71-127

Analysis Name: 23a Dioxin/Furan by EPA 1613B
Batch number: 13107001

	13C12-2378-TCDD	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF	13C12-234678-HxCDF	13C12-123789-HxCDF
7024684	78	77	81	81	81	80
7024685	81	77	83	84	82	77
7024686	76	75	79	87	79	62
7024687	80	82	87	100	89	82
7024688	79	78	84	93	84	78
7024690	68	67	71	80	69	65
Blank	71	69	75	81	75	71
OPR	65	66	72	80	73	72
Limits:	25-164	21-178	26-152	26-123	28-136	29-147

	13C12-1234678-HpCDF	13C12-1234789-HpCDF	13C12-OCDF	13C12-12378-PeCDD	13C12-123478-HxCDD	13C12-123678-HxCDD
7024684	80	68	61	77	77	81
7024685	86	77	73	77	78	81
7024686	99	58	47	76	78	80
7024687	126	70	62	85	92	92
7024688	115	68	61	80	84	88
7024690	99	54	49	69	72	77

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1383412
Reported: 05/03/13 at 10:18 AM

Surrogate Quality Control

Blank	94	62	57	74	79	77
OPR	100	62	58	72	77	78
Limits:	28-143	26-138	17-157	25-181	32-141	28-130

	13C12-123789-HxCDD	13C12-1234678-HpCDD	13C12-OCDD	13C12-2378-TCDF	13C12-12378-PeCDF
7024684	82	74	68	76	77
7024685	80	76	72	76	79
7024686	81	75	68	71	80
7024687	91	89	87	74	91
7024688	88	84	85	75	87
7024690	77	71	73	64	75
Blank	77	75	72	63	73
OPR	77	79	79	59	73
Limits:	28-130	23-140	17-157	24-169	24-185

Analysis Name: 17b Dioxin/Furan by EPA 1613B
Batch number: 13112001

	13C12-2378-TCDD	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF	13C12-234678-HxCDF	13C12-123789-HxCDF
7024683	67	72	71	69	71	70
Blank	75	74	74	72	72	87
OPR	65	70	69	69	69	76
Limits:	25-164	21-178	26-152	26-123	28-136	29-147

	13C12-1234678-HpCDF	13C12-1234789-HpCDF	13C12-OCDF	13C12-12378-PeCDD	13C12-123478-HxCDD	13C12-123678-HxCDD
7024683	69	71	72	76	76	77
Blank	74	71	71	81	78	77
OPR	69	67	66	73	75	73
Limits:	28-143	26-138	17-157	25-181	32-141	28-130

	13C12-123789-HxCDD	13C12-1234678-HpCDD	13C12-OCDD	13C12-2378-TCDF	13C12-12378-PeCDF
7024683	76	77	80	65	71
Blank	78	77	78	66	76
OPR	73	71	74	63	71
Limits:	28-130	23-140	17-157	24-169	24-185

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

acct#13013 Cup#1383412 sample# 7024683-90

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 4/16/2013
CarrierName: FedEx
AirbillNo: 7995 4183 7052

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20130416-01
Cooler #: 2, 3
Lab: Lancaster
Lab Phone: 717-556-7259
Lab Address: 2425 New Holland Pike, Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Other Analysis/Notes
FB-041613	4/16/13 15:15	WQ	HNO3 pH<2	1 - 250 mL Poly	10 day	X		X																													
FB-041613	4/16/13 15:15	WQ	None	1 - 250 mL Poly	10 day				X																												
FB-041613	4/16/13 15:15	WQ	None	1 - 250 mL Amber	10 day					X																											
FB-041613	4/16/13 15:15	WQ	None	1 - 250 mL Amber	10 day							X																									
FB-041613	4/16/13 15:15	WQ	None	1 - 1 L Amber	10 day									X																							
FB-041613	4/16/13 15:15	WQ	None	1 - 250 mL Amber	10 day										X																						
FB-041613	4/16/13 15:15	WQ	None	1 - 40 mL Vial	10 day												X																				
FB-041613	4/16/13 15:15	WQ	None	1 - 250 mL Poly	10 day														X																		
FB-041613	4/16/13 15:15	WQ	None	1 - 250 mL Poly	10 day															X																	
FB-041613	4/16/13 15:15	WQ	None	1 - 1 L Amber	10 day																X																
FB-041613	4/16/13 15:15	WQ	None	1 - 250 mL Amber	10 day																	X															
FB-041613	4/16/13 15:15	WQ	HCl	3 - 40 mL Vial	10 day																		X														
FB-041613	4/16/13 15:15	WQ	HCl	3 - 40 mL Vial	10 day																			X													
FB-041613	4/16/13 15:15	WQ	HCl	3 - 40 mL Vial	10 day																				X												
FB-041613	4/16/13 15:15	WQ	HCl	2 - 1 L Amber	10 day																					X											
FB-041613	4/16/13 15:15	WQ	None	2 - 40 mL Vial	10 day																						X										
FB-041613	4/16/13 15:15	WQ	HCl	2 - 40 mL Vial	10 day																							X									
FB-041613	4/16/13 15:15	WQ	HCl	1 - 1 L Amber	10 day																								X								
FB-041613	4/16/13 15:15	WQ	None	6 - 40 mL Vial	10 day																									X							Analyze for Nitrite, Bromide, Chloride, Phos PHATE, SULFAT
FB-041613	4/16/13 15:15	WQ	None	2 - 1 L Amber	10 day																										X						
FB-041613	4/16/13 15:15	WQ	NaOH	1 - 250 mL Poly	10 day																											X					
FB-041613	4/16/13 15:15	WQ	None	1 - 250 mL Amber	10 day																												X				
FB-041613	4/16/13 15:15	WQ	H2SO4 pH<2	1 - 8 oz glass	10 day																																Analyze for Ammonia by EPA 350.3 |

acct#13013 Cp#1383412 Sample#7024683-90

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 4/16/2013
CarrierName: FedEx
AirbillNo: 7995 4183 7052

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20130416-01
Cooler #: 2, 3
Lab: Lancaster
Lab Phone: 717-556-7259
Lab Address: 2425 New Holland Pike Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Other Analysis/Notes

Special Instructions:

Sampler: Steven Mercer

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
V. Gh	4/16/13										
									Pat Gh	4/17/13	0930

acct#13013 Gp#1383412 Sample# 7024683-90

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 4/16/2013
CarrierName: FedEx
AirbillNo: 7995 4183 7052

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20130416-02
Cooler #: 1
Lab: Lancaster
Lab Phone: 717-556-7259
Lab Address: 2425 New Holland Pike, Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Other Analysis/Notes
SL-559-SA7-SB-0.0-0.5	4/16/13 08:45	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-559-SA7-SB-0.0-0.5	4/16/13 08:45	SO	None	1 - 4 oz glass	10 day													X																			
SL-559-SA7-SB-2.0-3.0	4/16/13 09:25	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-559-SA7-SB-2.0-3.0	4/16/13 09:25	SO	None	1 - 4 oz glass	10 day													X																			
SL-559-SA7-SB-2.0-3.0	4/16/13 09:25	SO	None	1 - Encore	10 day																				X												
SL-560-SA7-SB-0.0-0.5	4/16/13 10:20	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-560-SA7-SB-0.0-0.5	4/16/13 10:20	SO	None	1 - 4 oz glass	10 day													X																			
SL-560-SA7-SB-3.0-4.0	4/16/13 11:05	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-560-SA7-SB-3.0-4.0	4/16/13 11:05	SO	None	1 - 4 oz glass	10 day													X																			
SL-560-SA7-SB-3.0-4.0	4/16/13 11:05	SO	None	1 - Encore	10 day																				X												
SL-561-SA7-SB-0.0-0.5	4/16/13 13:30	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-561-SA7-SB-0.0-0.5	4/16/13 13:30	SO	None	1 - 4 oz glass	10 day													X																			
TB-041613	4/16/13 08:00	WQ	None	3 - 40 mL Vial	10 day																				X												
SL-558-SA7-SB-0.0-0.5	4/16/13 14:35	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-558-SA7-SB-0.0-0.5	4/16/13 14:35	SO	None	1 - 4 oz glass	10 day													X																			

Special Instructions:

Sampler: Steven Marcer

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
V. Gtz	4/16/13										
									Pat Gh	4/17/13	0930

COC Rev 2

COC: 20130416-02, Page 1 of 1

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C# 1383412

Environmental Sample Administration
Receipt Documentation Log

Client/Project: CDM Smith

Date of Receipt: 4/17/13

Time of Receipt: 0930

Source Code: 50

Shipping Container Sealed: YES NO

Custody Seal Present *: YES NO

* Custody seal was intact unless otherwise noted in the discrepancy section

Package: Chilled Not Chilled

Temperature of Shipping Containers							
Cooler #	Thermometer ID	Temperature (°C)	Temp Bottle (TB) or Surface Temp (ST)	Wet Ice (WI) or Dry Ice (DI) or Ice Packs (IP)	Ice Present? Y/N	Loose (L) Bagged Ice (B) or NA	Comments
1	2737	2.6	TB	WI	y	B	
2	↓	2.5	↓	↓	↓	↓	
3		2.4					
4							
5							
6							

Number of Trip Blanks received NOT listed on chain of custody: Ø

Paperwork Discrepancy/Unpacking Problems:

~~Rec'd 1 500 mL Sulfuric preserved glass container for ammonia analysis not listed on chain.~~ PE 4/17/13

Unpacker Signature/Emp#: Pat Gh 3472 **Date/Time:** 4/17/13 1200

Issued by Dept. 6042 Management

2174.06

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	**BMQL**	Below Minimum Quantitation Level
N.D.	none detected	**MPN**	Most Probable Number
TNTC	Too Numerous To Count	**CP Units**	cobalt-chloroplatinate units
IU	International Units	**NTU**	nephelometric turbidity units
umhos/cm	micromhos/cm	**ng**	nanogram(s)
C	degrees Celsius	**F**	degrees Fahrenheit
meq	milliequivalents	**lb.**	pound(s)
g	gram(s)	**kg**	kilogram(s)
µg	microgram(s)	**mg**	milligram(s)
mL	milliliter(s)	**L**	liter(s)
m3	cubic meter(s)	**µL**	microliter(s)
		pg/L	picogram/liter

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

J estimated value – The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	**B**	Value is <CRDL, but ≥IDL
B	Analyte was also detected in the blank	**E**	Estimated due to interference
C	Pesticide result confirmed by GC/MS	**M**	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	**N**	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	**S**	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	**U**	Compound was not detected
P	Concentration difference between primary and confirmation columns >25%	**W**	Post digestion spike out of control limits
U	Compound was not detected	*****	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	**+**	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as “analyze immediately” are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL LANCASTER LABORATORIES BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF LANCASTER LABORATORIES AND (B) WHETHER LANCASTER LABORATORIES HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Lancaster Laboratories which includes any conditions that vary from the Standard Terms and Conditions, and Lancaster hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

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2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Analysis Report

ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

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

April 30, 2013

Project: Phase 3 Subarea 7

Submittal Date: 04/18/2013
Group Number: 1383780
SDG: PH033
PO Number: 1204-002-001-AL
State of Sample Origin: CA

Client Sample Description	Lancaster Labs (LLI) #
TB-041713 Water	7026475
SL-558-SA7-SB-3.0-4.0 Soil	7026476
SL-557-SA7-SB-0.0-0.5 Soil	7026477
SL-505-SA7-SB-0.0-0.5 Soil	7026478
SL-502-SA7-SB-0.0-0.5 Soil	7026479
SL-501-SA7-SB-0.0-0.5 Soil	7026480
SL-500-SA7-SB-0.0-0.5 Soil	7026481

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

ELECTRONIC COPY TO	LLI	Attn: Nicole Maljovec
ELECTRONIC COPY TO	Eurofins Lancaster Labs	Attn: Natalie Luciano

Respectfully Submitted,

Nicole L. Maljovec
Principal Specialist Group Leader

(717) 556-7259

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

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Analysis Report

Sample Description: TB-041713 Water
SSFL Phase 3 Subarea 7

LLI Sample # WW 7026475
LLI Group # 1383780
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/17/2013 08:00

Submitted: 04/18/2013 09:15
Reported: 04/30/2013 14:14

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

TB417 SDG#: PH033-01TB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC Volatiles	**TPH GRO SW-8015B**		ug/l		ug/l	ug/l	
08229	TPH-GRO S.CA water C5-C12	n.a.	50	U	50	20	1

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08229	11b TPH by EPA 8015B GRO	TPH GRO SW-8015B	1	13108B20A	04/19/2013 14:15	Catherine J Schwarz	1
01146	GC VOA Water Prep	SW-846 5030B	1	13108B20A	04/19/2013 14:15	Catherine J Schwarz	1

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

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2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Analysis Report

Sample Description: SL-558-SA7-SB-3.0-4.0 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7026476
LLI Group # 1383780
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/17/2013 09:00 by SM

Submitted: 04/18/2013 09:15
Reported: 04/30/2013 14:14

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

7-558 SDG#: PH033-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.69	1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.34	1
12969	Anthracene	120-12-7	1.7	U	1.7	0.34	1
12969	Benzo(a)anthracene	56-55-3	1.7	U	1.7	0.69	1
12969	Benzo(a)pyrene	50-32-8	1.7	U	1.7	0.69	1
12969	Benzo(b)fluoranthene	205-99-2	1.7	U	1.7	0.69	1
12969	Benzo(e)pyrene	192-97-2	18	U	18	3.4	1
12969	Benzo(g,h,i)perylene	191-24-2	1.7	U	1.7	0.69	1
12969	Benzo(k)fluoranthene	207-08-9	4.4		1.7	0.69	1
12969	Butylbenzylphthalate	85-68-7	19	U	19	6.2	1
12969	Di-n-butylphthalate	84-74-2	24		19	6.2	1
12969	Chrysene	218-01-9	0.47	J	1.7	0.34	1
12969	Dibenz(a,h)anthracene	53-70-3	1.7	U	1.7	0.69	1
12969	Diethylphthalate	84-66-2	19	U	19	6.2	1
12969	Dimethylphthalate	131-11-3	19	U	19	6.2	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	19	U	19	6.2	1
12969	Fluoranthene	206-44-0	1.7	U	1.7	0.69	1
12969	Fluorene	86-73-7	1.7	U	1.7	0.69	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.7	U	1.7	0.69	1
12969	1-Methylnaphthalene	90-12-0	1.7	U	1.7	0.69	1
12969	2-Methylnaphthalene	91-57-6	1.7	U	1.7	0.69	1
12969	Naphthalene	91-20-3	1.7	U	1.7	0.69	1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.69	1
12969	Di-n-octylphthalate	117-84-0	19	U	19	6.2	1
12969	Phenanthrene	85-01-8	1.7	U	1.7	0.69	1
12969	Pyrene	129-00-0	1.7	U	1.7	0.69	1
GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	1.1	U	1.1	0.2	26.15
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
10592	Aroclor 5432	63496-31-1	34	U	34	10	1
10592	Aroclor 5442	12642-23-8	34	U	34	10	1
10592	Aroclor 5460	11126-42-4	34	U	34	10	1
10592	PCB-1016	12674-11-2	17	U	17	3.4	1
10592	PCB-1221	11104-28-2	17	U	17	5.2	1
10592	PCB-1232	11141-16-5	17	U	17	4.2	1
10592	PCB-1242	53469-21-9	17	U	17	3.4	1
10592	PCB-1248	12672-29-6	17	U	17	3.4	1
10592	PCB-1254	11097-69-1	17	U	17	4.5	1
10592	PCB-1260	11096-82-5	17	U	17	4.0	1
10592	PCB-1262	37324-23-5	17	U	17	3.4	1
10592	PCB-1268	11100-14-4	17	U	17	3.4	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.2	U	5.2	2.1	1
12952	EFH (C15-C20)	n.a.	5.2	U	5.2	2.1	1

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

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Analysis Report

Sample Description: SL-558-SA7-SB-3.0-4.0 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7026476
LLI Group # 1383780
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/17/2013 09:00 by SM

Submitted: 04/18/2013 09:15
Reported: 04/30/2013 14:14

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

7-558 SDG#: PH033-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C21-C30)	n.a.	5.2	U	5.2	2.1	1
12952	EFH (C30-C40)	n.a.	10	U	10	4.1	1
12952	EFH (C8-C11)	n.a.	5.2	U	5.2	2.1	1
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	14,800		41.5	7.99	1
06944	Antimony	7440-36-0	4.15	U	4.15	0.518	1
06935	Arsenic	7440-38-2	4.67		4.15	0.342	1
06946	Barium	7440-39-3	78.9		1.04	0.0342	1
06947	Beryllium	7440-41-7	0.573	J	1.04	0.0694	1
07914	Boron	7440-42-8	5.62	J	10.4	0.860	1
06949	Cadmium	7440-43-9	0.102	J	1.04	0.0342	1
01650	Calcium	7440-70-2	2,570		20.7	4.17	1
06951	Chromium	7440-47-3	19.5		3.11	0.0912	1
06952	Cobalt	7440-48-4	5.21		1.04	0.0933	1
06953	Copper	7440-50-8	12.4		2.07	0.187	1
01654	Iron	7439-89-6	22,700		41.5	3.94	1
06955	Lead	7439-92-1	5.53		3.11	0.487	1
01656	Lithium	7439-93-2	26.0		4.1	0.57	1
01657	Magnesium	7439-95-4	4,890		10.4	1.79	1
06958	Manganese	7439-96-5	320		1.04	0.0860	1
06960	Molybdenum	7439-98-7	0.377	J	2.07	0.176	1
06961	Nickel	7440-02-0	10.7		2.07	0.114	1
10145	Phosphorus	7723-14-0	384		10.4	0.528	1
01662	Potassium	7440-09-7	3,090		104	14.0	1
01667	Sodium	7440-23-5	111		104	17.3	1
06969	Tin	7440-31-5	3.17	J	10.4	0.228	1
06970	Titanium	7440-32-6	1,230		1.04	0.176	1
06971	Vanadium	7440-62-2	39.0		1.04	0.114	1
06972	Zinc	7440-66-6	53.1		4.15	0.207	1
10146	Zirconium	7440-67-7	2.38	J	5.18	0.860	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.152	J	0.415	0.104	2
06142	Silver	7440-22-4	0.0854	J	0.207	0.0207	2
06144	Strontium	7440-24-6	14.7		0.415	0.0352	2
06145	Thallium	7440-28-0	0.235		0.207	0.0311	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0203	U	0.0203	0.0105	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045C	n.a.	7.43		0.0100	0.0100	1
	The pH was measured in water at 22 C.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	3.5		0.10	0.10	1

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

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Analysis Report

Sample Description: SL-558-SA7-SB-3.0-4.0 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7026476
LLI Group # 1383780
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/17/2013 09:00 by SM

Submitted: 04/18/2013 09:15
Reported: 04/30/2013 14:14

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

7-558 SDG#: PH033-02

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

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

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

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Analysis Report

Sample Description: SL-558-SA7-SB-3.0-4.0 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7026476
LLI Group # 1383780
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/17/2013 09:00 by SM

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Reported: 04/30/2013 14:14

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

7-558 SDG#: PH033-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	1.03	U	1.03	0.0253	1
11031	12378-PeCDD	40321-76-4	0.174	JB	5.14	0.0306	1
11031	123478-HxCDD	39227-28-6	0.400	JB	5.14	0.0350	1
11031	123678-HxCDD	57653-85-7	2.48	JB	5.14	0.0358	1
11031	123789-HxCDD	19408-74-3	1.15	JB	5.14	0.0342	1
11031	1234678-HpCDD	35822-46-9	64.4	B	5.14	0.0484	1
11031	OCDD	3268-87-9	505	B	10.3	0.0388	1
11031	2378-TCDF	51207-31-9	1.03	U	1.03	0.0200	1
11031	12378-PeCDF	57117-41-6	0.0704	JBQ	5.14	0.0131	1
11031	23478-PeCDF	57117-31-4	0.0479	JBQ	5.14	0.0122	1
11031	123478-HxCDF	70648-26-9	0.162	JBQ	5.14	0.0275	1
11031	123678-HxCDF	57117-44-9	0.115	JB	5.14	0.0259	1
11031	123789-HxCDF	72918-21-9	0.103	JB	5.14	0.0263	1
11031	234678-HxCDF	60851-34-5	0.168	JB	5.14	0.0255	1
11031	1234678-HpCDF	67562-39-4	3.96	JB	5.14	0.0138	1
11031	1234789-HpCDF	55673-89-7	0.438	JB	5.14	0.0197	1
11031	OCDF	39001-02-0	10.8	B	10.3	0.0255	1
Toxic Equivalents	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	1.46				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	72	25 - 164
13C12-12378-PeCDD	75	25 - 181
13C12-123478-HxCDD	81	32 - 141
13C12-123678-HxCDD	83	28 - 130
13C12-123789-HxCDD	80	28 - 130
13C12-1234678-HpCDD	77	23 - 140
13C12-OCDD	75	17 - 157
13C12-2378-TCDF	70	24 - 169
13C12-12378-PeCDF	76	24 - 185
13C12-23478-PeCDF	76	21 - 178
13C12-123478-HxCDF	86	26 - 152
13C12-123678-HxCDF	86	26 - 123
13C12-234678-HxCDF	83	28 - 136
13C12-123789-HxCDF	88	29 - 147
13C12-1234678-HpCDF	91	28 - 143
13C12-1234789-HpCDF	74	26 - 138
13C12-OCDF	68	17 - 157

Dioxins/Furans Data Qualifiers:

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

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

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Analysis Report

Sample Description: SL-558-SA7-SB-3.0-4.0 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7026476
LLI Group # 1383780
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/17/2013 09:00 by SM

Submitted: 04/18/2013 09:15
Reported: 04/30/2013 14:14

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

7-558 SDG#: PH033-02

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

F *Interference is present*
S *Saturation of detection signal*

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

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Analysis Report

Sample Description: SL-558-SA7-SB-3.0-4.0 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7026476
LLI Group # 1383780
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/17/2013 09:00 by SM

Submitted: 04/18/2013 09:15
Reported: 04/30/2013 14:14

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

7-558 SDG#: PH033-02

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13110SLE026	04/28/2013	22:43	Holly Berry	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	13110SLE026	04/22/2013	02:00	Sherry L Morrow	1
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	13108A16B	04/19/2013	21:00	Laura M Krieger	26.15
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201310830810	04/18/2013	15:21	Mitchell R Washel	n.a.
10592	19a PCBs and PCTs 8082A	SW-846 8082A	1	131100011A	04/23/2013	06:50	Monica M Souders	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	131100011A	04/22/2013	08:00	Olivia Arosemena	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	131090007A	04/23/2013	04:06	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	131090007A	04/19/2013	16:25	JoElla L Rice	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13109001	04/22/2013	17:39	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13109001	04/19/2013	11:45	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010C	1	131150637001	04/28/2013	18:50	Tara L Snyder	1
06944	Antimony	SW-846 6010C	1	131150637001	04/28/2013	18:50	Tara L Snyder	1
06935	Arsenic	SW-846 6010C	1	131150637001	04/28/2013	18:50	Tara L Snyder	1
06946	Barium	SW-846 6010C	1	131150637001	04/28/2013	18:50	Tara L Snyder	1
06947	Beryllium	SW-846 6010C	1	131150637001	04/28/2013	18:50	Tara L Snyder	1
07914	Boron	SW-846 6010C	1	131150637001	04/28/2013	18:50	Tara L Snyder	1
06949	Cadmium	SW-846 6010C	1	131150637001	04/28/2013	18:50	Tara L Snyder	1
01650	Calcium	SW-846 6010C	1	131150637001	04/28/2013	18:50	Tara L Snyder	1
06951	Chromium	SW-846 6010C	1	131150637001	04/28/2013	18:50	Tara L Snyder	1
06952	Cobalt	SW-846 6010C	1	131150637001	04/28/2013	18:50	Tara L Snyder	1
06953	Copper	SW-846 6010C	1	131150637001	04/28/2013	18:50	Tara L Snyder	1
01654	Iron	SW-846 6010C	1	131150637001	04/28/2013	18:50	Tara L Snyder	1
06955	Lead	SW-846 6010C	1	131150637001	04/28/2013	18:50	Tara L Snyder	1
01656	Lithium	SW-846 6010C	1	131150637001	04/28/2013	18:50	Tara L Snyder	1
01657	Magnesium	SW-846 6010C	1	131150637001	04/28/2013	18:50	Tara L Snyder	1
06958	Manganese	SW-846 6010C	1	131150637001	04/28/2013	18:50	Tara L Snyder	1
06960	Molybdenum	SW-846 6010C	1	131150637001	04/28/2013	18:50	Tara L Snyder	1
06961	Nickel	SW-846 6010C	1	131150637001	04/28/2013	18:50	Tara L Snyder	1
10145	Phosphorus	SW-846 6010C	1	131150637001	04/28/2013	18:50	Tara L Snyder	1
01662	Potassium	SW-846 6010C	1	131150637001	04/28/2013	18:50	Tara L Snyder	1
01667	Sodium	SW-846 6010C	1	131150637001	04/28/2013	18:50	Tara L Snyder	1
06969	Tin	SW-846 6010C	1	131150637001	04/28/2013	18:50	Tara L Snyder	1
06970	Titanium	SW-846 6010C	1	131150637001	04/28/2013	18:50	Tara L Snyder	1
06971	Vanadium	SW-846 6010C	1	131150637001	04/28/2013	18:50	Tara L Snyder	1
06972	Zinc	SW-846 6010C	1	131150637001	04/28/2013	18:50	Tara L Snyder	1
10146	Zirconium	SW-846 6010C	1	131150637001	04/28/2013	18:50	Tara L Snyder	1
06141	Selenium	SW-846 6020A	1	131150637001B	04/29/2013	08:40	Choon Y Tian	2

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

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Analysis Report

Sample Description: SL-558-SA7-SB-3.0-4.0 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7026476
LLI Group # 1383780
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/17/2013 09:00 by SM

Submitted: 04/18/2013 09:15
Reported: 04/30/2013 14:14

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

7-558 SDG#: PH033-02

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06142	Silver	SW-846 6020A	1	131150637001A	04/29/2013 08:40	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	131150637001A	04/29/2013 08:40	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	131150637001A	04/29/2013 08:40	Choon Y Tian	2
00159	3a Mercury 7471A	SW-846 7471B	1	131090638001	04/23/2013 07:05	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	131150637001	04/25/2013 22:32	Annamaria Stipkovits	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	131090638001	04/23/2013 01:45	Annamaria Stipkovits	1
00394	15a pH by 9045C	SW-846 9045D modified	1	13108039401A	04/18/2013 20:00	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13115162401A	04/25/2013 19:23	Scott W Freisher	1

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

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Analysis Report

Sample Description: SL-557-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7026477
LLI Group # 1383780
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/17/2013 09:40 by SM

Submitted: 04/18/2013 09:15
Reported: 04/30/2013 14:14

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

7-557 SDG#: PH033-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.70	1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.35	1
12969	Anthracene	120-12-7	1.7	U	1.7	0.35	1
12969	Benzo(a)anthracene	56-55-3	1.7	U	1.7	0.70	1
12969	Benzo(a)pyrene	50-32-8	1.7	U	1.7	0.70	1
12969	Benzo(b)fluoranthene	205-99-2	1.2	J	1.7	0.70	1
12969	Benzo(e)pyrene	192-97-2	18	U	18	3.5	1
12969	Benzo(g,h,i)perylene	191-24-2	1.7	U	1.7	0.70	1
12969	Benzo(k)fluoranthene	207-08-9	3.8		1.7	0.70	1
12969	Butylbenzylphthalate	85-68-7	19	J	19	6.3	1
12969	Di-n-butylphthalate	84-74-2	19	U	19	6.3	1
12969	Chrysene	218-01-9	0.97	J	1.7	0.35	1
12969	Dibenz(a,h)anthracene	53-70-3	1.7	U	1.7	0.70	1
12969	Diethylphthalate	84-66-2	19	U	19	6.3	1
12969	Dimethylphthalate	131-11-3	19	U	19	6.3	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	7.3	J	19	6.3	1
12969	Fluoranthene	206-44-0	1.3	J	1.7	0.70	1
12969	Fluorene	86-73-7	1.7	U	1.7	0.70	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.7	U	1.7	0.70	1
12969	1-Methylnaphthalene	90-12-0	1.7	U	1.7	0.70	1
12969	2-Methylnaphthalene	91-57-6	1.7	U	1.7	0.70	1
12969	Naphthalene	91-20-3	0.70	J	1.7	0.70	1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.70	1
12969	Di-n-octylphthalate	117-84-0	19	U	19	6.3	1
12969	Phenanthrene	85-01-8	0.80	J	1.7	0.70	1
12969	Pyrene	129-00-0	1.0	J	1.7	0.70	1
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
10592	Aroclor 5432	63496-31-1	34	U	34	10	1
10592	Aroclor 5442	12642-23-8	34	U	34	10	1
10592	Aroclor 5460	11126-42-4	34	U	34	10	1
10592	PCB-1016	12674-11-2	17	U	17	3.4	1
10592	PCB-1221	11104-28-2	17	U	17	5.2	1
10592	PCB-1232	11141-16-5	17	U	17	4.2	1
10592	PCB-1242	53469-21-9	17	U	17	3.4	1
10592	PCB-1248	12672-29-6	17	U	17	3.4	1
10592	PCB-1254	11097-69-1	17	U	17	4.5	1
10592	PCB-1260	11096-82-5	17	U	17	4.0	1
10592	PCB-1262	37324-23-5	17	U	17	3.4	1
10592	PCB-1268	11100-14-4	17	U	17	3.4	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.2	U	5.2	2.1	1
12952	EFH (C15-C20)	n.a.	5.2	U	5.2	2.1	1
12952	EFH (C21-C30)	n.a.	17		5.2	2.1	1
12952	EFH (C30-C40)	n.a.	28		10	4.2	1
12952	EFH (C8-C11)	n.a.	5.2	U	5.2	2.1	1
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	

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

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Analysis Report

Sample Description: SL-557-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7026477
LLI Group # 1383780
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/17/2013 09:40 by SM

Submitted: 04/18/2013 09:15
Reported: 04/30/2013 14:14

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

7-557 SDG#: PH033-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	15,200		41.8	8.06	1
06944	Antimony	7440-36-0	0.592	J	4.18	0.523	1
06935	Arsenic	7440-38-2	5.65		4.18	0.345	1
06946	Barium	7440-39-3	88.2		1.05	0.0345	1
06947	Beryllium	7440-41-7	0.740	J	1.05	0.0701	1
07914	Boron	7440-42-8	3.19	J	10.5	0.868	1
06949	Cadmium	7440-43-9	0.0858	J	1.05	0.0345	1
01650	Calcium	7440-70-2	3,820		20.9	4.21	1
06951	Chromium	7440-47-3	24.7		3.14	0.0921	1
06952	Cobalt	7440-48-4	6.86		1.05	0.0941	1
06953	Copper	7440-50-8	14.9		2.09	0.188	1
01654	Iron	7439-89-6	26,000		41.8	3.97	1
06955	Lead	7439-92-1	7.50		3.14	0.492	1
01656	Lithium	7439-93-2	25.7		4.2	0.58	1
01657	Magnesium	7439-95-4	6,280		10.5	1.81	1
06958	Manganese	7439-96-5	365		1.05	0.0868	1
06960	Molybdenum	7439-98-7	0.240	J	2.09	0.178	1
06961	Nickel	7440-02-0	13.7		2.09	0.115	1
10145	Phosphorus	7723-14-0	267		10.5	0.533	1
01662	Potassium	7440-09-7	2,300		105	14.1	1
01667	Sodium	7440-23-5	80.6	J	105	17.5	1
06969	Tin	7440-31-5	3.34	J	10.5	0.230	1
06970	Titanium	7440-32-6	1,290		1.05	0.178	1
06971	Vanadium	7440-62-2	47.9		1.05	0.115	1
06972	Zinc	7440-66-6	56.1		4.18	0.209	1
10146	Zirconium	7440-67-7	2.47	J	5.23	0.868	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.202	J	0.418	0.105	2
06142	Silver	7440-22-4	0.0582	J	0.209	0.0209	2
06144	Strontium	7440-24-6	12.1		0.418	0.0356	2
06145	Thallium	7440-28-0	0.255		0.209	0.0314	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0252		0.0205	0.0106	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045C	n.a.	6.76		0.0100	0.0100	1
	The pH was measured in water at 21.9 C.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	4.4		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

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

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Analysis Report

Sample Description: SL-557-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7026477
LLI Group # 1383780
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/17/2013 09:40 by SM

Submitted: 04/18/2013 09:15
Reported: 04/30/2013 14:14

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

7-557 SDG#: PH033-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	1.04	U	1.04	0.0218	1
11031	12378-PeCDD	40321-76-4	0.0514	JB	5.18	0.0229	1
11031	123478-HxCDD	39227-28-6	5.18	U	5.18	0.0268	1
11031	123678-HxCDD	57653-85-7	0.167	JB	5.18	0.0263	1
11031	123789-HxCDD	19408-74-3	0.142	JB	5.18	0.0244	1
11031	1234678-HpCDD	35822-46-9	3.42	JB	5.18	0.0293	1
11031	OCDD	3268-87-9	25.0	B	10.4	0.0264	1
11031	2378-TCDF	51207-31-9	0.0749	J	1.04	0.0267	1
11031	12378-PeCDF	57117-41-6	0.133	JB	5.18	0.0160	1
11031	23478-PeCDF	57117-31-4	0.113	JB	5.18	0.0155	1
11031	123478-HxCDF	70648-26-9	0.0896	JB	5.18	0.0199	1
11031	123678-HxCDF	57117-44-9	0.0717	JB	5.18	0.0196	1
11031	123789-HxCDF	72918-21-9	0.0468	JB	5.18	0.0201	1
11031	234678-HxCDF	60851-34-5	0.0959	JBQ	5.18	0.0189	1
11031	1234678-HpCDF	67562-39-4	0.576	JB	5.18	0.0126	1
11031	1234789-HpCDF	55673-89-7	0.0644	JB	5.18	0.0169	1
11031	OCDF	39001-02-0	1.34	JB	10.4	0.0324	1
Toxic Equivalents	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.197				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	75	25 - 164
13C12-12378-PeCDD	73	25 - 181
13C12-123478-HxCDD	78	32 - 141
13C12-123678-HxCDD	81	28 - 130
13C12-123789-HxCDD	82	28 - 130
13C12-1234678-HpCDD	76	23 - 140
13C12-OCDD	73	17 - 157
13C12-2378-TCDF	72	24 - 169
13C12-12378-PeCDF	76	24 - 185
13C12-23478-PeCDF	74	21 - 178
13C12-123478-HxCDF	83	26 - 152
13C12-123678-HxCDF	84	26 - 123
13C12-234678-HxCDF	81	28 - 136
13C12-123789-HxCDF	85	29 - 147
13C12-1234678-HpCDF	87	28 - 143
13C12-1234789-HpCDF	73	26 - 138
13C12-OCDF	66	17 - 157

Dioxins/Furans Data Qualifiers:

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

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

Sample Description: SL-557-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7026477
LLI Group # 1383780
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/17/2013 09:40 by SM

Submitted: 04/18/2013 09:15
Reported: 04/30/2013 14:14

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

7-557 SDG#: PH033-03

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

F *Interference is present*
S *Saturation of detection signal*

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

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Analysis Report

Sample Description: SL-557-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7026477
LLI Group # 1383780
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/17/2013 09:40 by SM

Submitted: 04/18/2013 09:15
Reported: 04/30/2013 14:14

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

7-557 SDG#: PH033-03

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13110SLE026	04/29/2013 00:15	Holly Berry	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	13110SLE026	04/22/2013 02:00	Sherry L Morrow	1
10592	19a PCBs and PCTs 8082A	SW-846 8082A	1	131100011A	04/23/2013 07:09	Monica M Souders	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	131100011A	04/22/2013 08:00	Olivia Arosemena	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	131090007A	04/23/2013 06:52	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	131090007A	04/19/2013 16:25	JoElla L Rice	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13109001	04/22/2013 18:35	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13109001	04/19/2013 11:45	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010C	1	131150637001	04/28/2013 18:54	Tara L Snyder	1
06944	Antimony	SW-846 6010C	1	131150637001	04/28/2013 18:54	Tara L Snyder	1
06935	Arsenic	SW-846 6010C	1	131150637001	04/28/2013 18:54	Tara L Snyder	1
06946	Barium	SW-846 6010C	1	131150637001	04/28/2013 18:54	Tara L Snyder	1
06947	Beryllium	SW-846 6010C	1	131150637001	04/28/2013 18:54	Tara L Snyder	1
07914	Boron	SW-846 6010C	1	131150637001	04/28/2013 18:54	Tara L Snyder	1
06949	Cadmium	SW-846 6010C	1	131150637001	04/28/2013 18:54	Tara L Snyder	1
01650	Calcium	SW-846 6010C	1	131150637001	04/28/2013 18:54	Tara L Snyder	1
06951	Chromium	SW-846 6010C	1	131150637001	04/28/2013 18:54	Tara L Snyder	1
06952	Cobalt	SW-846 6010C	1	131150637001	04/28/2013 18:54	Tara L Snyder	1
06953	Copper	SW-846 6010C	1	131150637001	04/28/2013 18:54	Tara L Snyder	1
01654	Iron	SW-846 6010C	1	131150637001	04/28/2013 18:54	Tara L Snyder	1
06955	Lead	SW-846 6010C	1	131150637001	04/28/2013 18:54	Tara L Snyder	1
01656	Lithium	SW-846 6010C	1	131150637001	04/28/2013 18:54	Tara L Snyder	1
01657	Magnesium	SW-846 6010C	1	131150637001	04/28/2013 18:54	Tara L Snyder	1
06958	Manganese	SW-846 6010C	1	131150637001	04/28/2013 18:54	Tara L Snyder	1
06960	Molybdenum	SW-846 6010C	1	131150637001	04/28/2013 18:54	Tara L Snyder	1
06961	Nickel	SW-846 6010C	1	131150637001	04/28/2013 18:54	Tara L Snyder	1
10145	Phosphorus	SW-846 6010C	1	131150637001	04/28/2013 18:54	Tara L Snyder	1
01662	Potassium	SW-846 6010C	1	131150637001	04/28/2013 18:54	Tara L Snyder	1
01667	Sodium	SW-846 6010C	1	131150637001	04/28/2013 18:54	Tara L Snyder	1
06969	Tin	SW-846 6010C	1	131150637001	04/28/2013 18:54	Tara L Snyder	1
06970	Titanium	SW-846 6010C	1	131150637001	04/28/2013 18:54	Tara L Snyder	1
06971	Vanadium	SW-846 6010C	1	131150637001	04/28/2013 18:54	Tara L Snyder	1
06972	Zinc	SW-846 6010C	1	131150637001	04/28/2013 18:54	Tara L Snyder	1
10146	Zirconium	SW-846 6010C	1	131150637001	04/28/2013 18:54	Tara L Snyder	1
06141	Selenium	SW-846 6020A	1	131150637001B	04/29/2013 08:50	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	131150637001A	04/29/2013 08:50	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	131150637001A	04/29/2013 08:50	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	131150637001A	04/29/2013 08:50	Choon Y Tian	2

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

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Analysis Report

Sample Description: SL-557-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7026477
LLI Group # 1383780
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/17/2013 09:40 by SM

Submitted: 04/18/2013 09:15
Reported: 04/30/2013 14:14

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

7-557 SDG#: PH033-03

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00159	3a Mercury 7471A	SW-846 7471B	1	131090638001	04/23/2013 07:17	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	131150637001	04/25/2013 22:32	Annamaria Stipkovits	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	131090638001	04/23/2013 01:45	Annamaria Stipkovits	1
00394	15a pH by 9045C	SW-846 9045D modified	1	13108039401A	04/18/2013 20:00	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13115162401A	04/25/2013 19:23	Scott W Freisher	1

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

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Analysis Report

Sample Description: SL-505-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7026478
LLI Group # 1383780
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/17/2013 11:10 by SM

Submitted: 04/18/2013 09:15
Reported: 04/30/2013 14:14

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

7-505 SDG#: PH033-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.68	1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.34	1
12969	Anthracene	120-12-7	0.71	J	1.7	0.34	1
12969	Benzo(a)anthracene	56-55-3	4.8		1.7	0.68	1
12969	Benzo(a)pyrene	50-32-8	5.8		1.7	0.68	1
12969	Benzo(b)fluoranthene	205-99-2	17		1.7	0.68	1
12969	Benzo(e)pyrene	192-97-2	5.4	J	17	3.4	1
12969	Benzo(g,h,i)perylene	191-24-2	3.1		1.7	0.68	1
12969	Benzo(k)fluoranthene	207-08-9	11		1.7	0.68	1
12969	Butylbenzylphthalate	85-68-7	18	U	18	6.2	1
12969	Di-n-butylphthalate	84-74-2	18	U	18	6.2	1
12969	Chrysene	218-01-9	8.4		1.7	0.34	1
12969	Dibenz(a,h)anthracene	53-70-3	1.3	J	1.7	0.68	1
12969	Diethylphthalate	84-66-2	18	U	18	6.2	1
12969	Dimethylphthalate	131-11-3	18	U	18	6.2	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	13	J	18	6.2	1
12969	Fluoranthene	206-44-0	11		1.7	0.68	1
12969	Fluorene	86-73-7	1.4	J	1.7	0.68	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	2.7		1.7	0.68	1
12969	1-Methylnaphthalene	90-12-0	0.98	J	1.7	0.68	1
12969	2-Methylnaphthalene	91-57-6	1.6	J	1.7	0.68	1
12969	Naphthalene	91-20-3	2.3		1.7	0.68	1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.68	1
12969	Di-n-octylphthalate	117-84-0	18	U	18	6.2	1
12969	Phenanthrene	85-01-8	3.9		1.7	0.68	1
12969	Pyrene	129-00-0	9.8		1.7	0.68	1
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
10592	Aroclor 5432	63496-31-1	33	U	33	10	1
10592	Aroclor 5442	12642-23-8	33	U	33	10	1
10592	Aroclor 5460	11126-42-4	33	U	33	10	1
10592	PCB-1016	12674-11-2	17	U	17	3.3	1
10592	PCB-1221	11104-28-2	17	U	17	5.2	1
10592	PCB-1232	11141-16-5	17	U	17	4.2	1
10592	PCB-1242	53469-21-9	17	U	17	3.3	1
10592	PCB-1248	12672-29-6	17	U	17	3.3	1
10592	PCB-1254	11097-69-1	44		17	4.5	1
10592	PCB-1260	11096-82-5	17	U	17	4.0	1
10592	PCB-1262	37324-23-5	17	U	17	3.3	1
10592	PCB-1268	11100-14-4	17	U	17	3.3	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.1	U	5.1	2.1	1
12952	EFH (C15-C20)	n.a.	2.3	J	5.1	2.1	1
12952	EFH (C21-C30)	n.a.	19		5.1	2.1	1
12952	EFH (C30-C40)	n.a.	98		10	4.1	1
12952	EFH (C8-C11)	n.a.	5.1	U	5.1	2.1	1
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	

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

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Analysis Report

Sample Description: SL-505-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7026478
LLI Group # 1383780
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/17/2013 11:10 by SM

Submitted: 04/18/2013 09:15
Reported: 04/30/2013 14:14

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

7-505 SDG#: PH033-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	12,700		41.2	7.94	1
06944	Antimony	7440-36-0	4.12	U	4.12	0.515	1
06935	Arsenic	7440-38-2	4.79		4.12	0.340	1
06946	Barium	7440-39-3	74.6		1.03	0.0340	1
06947	Beryllium	7440-41-7	0.514	J	1.03	0.0690	1
07914	Boron	7440-42-8	4.25	J	10.3	0.855	1
06949	Cadmium	7440-43-9	0.174	J	1.03	0.0340	1
01650	Calcium	7440-70-2	3,380		20.6	4.14	1
06951	Chromium	7440-47-3	22.5		3.09	0.0906	1
06952	Cobalt	7440-48-4	5.70		1.03	0.0927	1
06953	Copper	7440-50-8	17.9		2.06	0.185	1
01654	Iron	7439-89-6	24,200		41.2	3.91	1
06955	Lead	7439-92-1	11.3		3.09	0.484	1
01656	Lithium	7439-93-2	25.1		4.1	0.57	1
01657	Magnesium	7439-95-4	5,400		10.3	1.78	1
06958	Manganese	7439-96-5	301		1.03	0.0855	1
06960	Molybdenum	7439-98-7	0.309	J	2.06	0.175	1
06961	Nickel	7440-02-0	13.7		2.06	0.113	1
10145	Phosphorus	7723-14-0	532		10.3	0.525	1
01662	Potassium	7440-09-7	3,990		103	13.9	1
01667	Sodium	7440-23-5	79.4	J	103	17.2	1
06969	Tin	7440-31-5	3.15	J	10.3	0.227	1
06970	Titanium	7440-32-6	1,180		1.03	0.175	1
06971	Vanadium	7440-62-2	40.9		1.03	0.113	1
06972	Zinc	7440-66-6	111		4.12	0.206	1
10146	Zirconium	7440-67-7	2.44	J	5.15	0.855	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.138	J	0.412	0.103	2
06142	Silver	7440-22-4	0.0450	J	0.206	0.0206	2
06144	Strontium	7440-24-6	14.0		0.412	0.0350	2
06145	Thallium	7440-28-0	0.214		0.206	0.0309	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0226		0.0198	0.0102	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045C	n.a.	7.20		0.0100	0.0100	1
	The pH was measured in water at 22.3 C.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	2.9		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

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

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Analysis Report

Sample Description: SL-505-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7026478
LLI Group # 1383780
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/17/2013 11:10 by SM

Submitted: 04/18/2013 09:15
Reported: 04/30/2013 14:14

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

7-505 SDG#: PH033-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		**ng/kg**	**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	4.35	0.986	0.0672	1
11031	12378-PeCDD	40321-76-4	15.9 B	4.93	0.102	1
11031	123478-HxCDD	39227-28-6	3,660 EB	4.93	0.114	1
11031	123678-HxCDD	57653-85-7	54.8 B	4.93	0.128	1
11031	123789-HxCDD	19408-74-3	18.1 B	4.93	0.118	1
11031	1234678-HpCDD	35822-46-9	2,000 EB	4.93	0.223	1
11031	OCDD	3268-87-9	23,100 EB	9.86	0.104	1
11031	2378-TCDF	51207-31-9	1.33 C	0.986	0.112	1
11031	12378-PeCDF	57117-41-6	6.58 B	4.93	0.0468	1
11031	23478-PeCDF	57117-31-4	2.54 JB	4.93	0.0458	1
11031	123478-HxCDF	70648-26-9	6.59 B	4.93	0.0632	1
11031	123678-HxCDF	57117-44-9	7.55 B	4.93	0.0620	1
11031	123789-HxCDF	72918-21-9	4.93 U	4.93	0.0716	1
11031	234678-HxCDF	60851-34-5	9.07 B	4.93	0.0646	1
11031	1234678-HpCDF	67562-39-4	101 B	4.93	0.0442	1
11031	1234789-HpCDF	55673-89-7	12.2 B	4.93	0.0544	1
11031	OCDF	39001-02-0	177 B	9.86	0.0422	1
Toxic Equivalents	**EPA 1613B**		**ng/kg**	**ng/kg**	**ng/kg**	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	425			1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	70	25 - 164
13C12-12378-PeCDD	69	25 - 181
13C12-123478-HxCDD	79	32 - 141
13C12-123678-HxCDD	80	28 - 130
13C12-123789-HxCDD	79	28 - 130
13C12-1234678-HpCDD	76	23 - 140
13C12-OCDD	80	17 - 157
13C12-2378-TCDF	68	24 - 169
13C12-12378-PeCDF	70	24 - 185
13C12-23478-PeCDF	68	21 - 178
13C12-123478-HxCDF	78	26 - 152
13C12-123678-HxCDF	79	26 - 123

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

Sample Description: SL-505-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7026478
LLI Group # 1383780
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/17/2013 11:10 by SM

Submitted: 04/18/2013 09:15
Reported: 04/30/2013 14:14

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

7-505 SDG#: PH033-04

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

Labeled Compounds	%Rec	Windows
13C12-234678-HxCDF	77	28 - 136
13C12-123789-HxCDF	77	29 - 147
13C12-1234678-HpCDF	82	28 - 143
13C12-1234789-HpCDF	73	26 - 138
13C12-OCDF	72	17 - 157

Dioxins/Furans Data Qualifiers:

B *Detected in Method Blank*
U *Undetected*
J *Estimated concentration between Estimated Detection Limit and Minimum Level*
E *Exceeds calibration range*
C *Confirmed quantitation on secondary GC column*
Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

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

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Analysis Report

Sample Description: SL-505-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7026478
LLI Group # 1383780
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/17/2013 11:10 by SM

Submitted: 04/18/2013 09:15
Reported: 04/30/2013 14:14

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

7-505 SDG#: PH033-04

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13110SLE026	04/29/2013 00:46	Holly Berry	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	13110SLE026	04/22/2013 02:00	Sherry L Morrow	1
10592	19a PCBs and PCTs 8082A	SW-846 8082A	1	131100011A	04/23/2013 07:27	Jessica L Miller	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	131100011A	04/22/2013 08:00	Olivia Arosemena	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	131090007A	04/23/2013 09:58	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	131090007A	04/19/2013 16:25	JoElla L Rice	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13109001	04/22/2013 19:32	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13109001	04/19/2013 11:45	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010C	1	131150637001	04/28/2013 19:06	Tara L Snyder	1
06944	Antimony	SW-846 6010C	1	131150637001	04/28/2013 19:06	Tara L Snyder	1
06935	Arsenic	SW-846 6010C	1	131150637001	04/28/2013 19:06	Tara L Snyder	1
06946	Barium	SW-846 6010C	1	131150637001	04/28/2013 19:06	Tara L Snyder	1
06947	Beryllium	SW-846 6010C	1	131150637001	04/28/2013 19:06	Tara L Snyder	1
07914	Boron	SW-846 6010C	1	131150637001	04/28/2013 19:06	Tara L Snyder	1
06949	Cadmium	SW-846 6010C	1	131150637001	04/28/2013 19:06	Tara L Snyder	1
01650	Calcium	SW-846 6010C	1	131150637001	04/28/2013 19:06	Tara L Snyder	1
06951	Chromium	SW-846 6010C	1	131150637001	04/28/2013 19:06	Tara L Snyder	1
06952	Cobalt	SW-846 6010C	1	131150637001	04/28/2013 19:06	Tara L Snyder	1
06953	Copper	SW-846 6010C	1	131150637001	04/28/2013 19:06	Tara L Snyder	1
01654	Iron	SW-846 6010C	1	131150637001	04/28/2013 19:06	Tara L Snyder	1
06955	Lead	SW-846 6010C	1	131150637001	04/28/2013 19:06	Tara L Snyder	1
01656	Lithium	SW-846 6010C	1	131150637001	04/28/2013 19:06	Tara L Snyder	1
01657	Magnesium	SW-846 6010C	1	131150637001	04/28/2013 19:06	Tara L Snyder	1
06958	Manganese	SW-846 6010C	1	131150637001	04/28/2013 19:06	Tara L Snyder	1
06960	Molybdenum	SW-846 6010C	1	131150637001	04/28/2013 19:06	Tara L Snyder	1
06961	Nickel	SW-846 6010C	1	131150637001	04/28/2013 19:06	Tara L Snyder	1
10145	Phosphorus	SW-846 6010C	1	131150637001	04/28/2013 19:06	Tara L Snyder	1
01662	Potassium	SW-846 6010C	1	131150637001	04/28/2013 19:06	Tara L Snyder	1
01667	Sodium	SW-846 6010C	1	131150637001	04/28/2013 19:06	Tara L Snyder	1
06969	Tin	SW-846 6010C	1	131150637001	04/28/2013 19:06	Tara L Snyder	1
06970	Titanium	SW-846 6010C	1	131150637001	04/28/2013 19:06	Tara L Snyder	1
06971	Vanadium	SW-846 6010C	1	131150637001	04/28/2013 19:06	Tara L Snyder	1
06972	Zinc	SW-846 6010C	1	131150637001	04/28/2013 19:06	Tara L Snyder	1
10146	Zirconium	SW-846 6010C	1	131150637001	04/28/2013 19:06	Tara L Snyder	1
06141	Selenium	SW-846 6020A	1	131150637001B	04/29/2013 08:52	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	131150637001A	04/29/2013 08:52	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	131150637001A	04/29/2013 08:52	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	131150637001A	04/29/2013 08:52	Choon Y Tian	2

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

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Analysis Report

Sample Description: SL-505-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7026478
LLI Group # 1383780
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/17/2013 11:10 by SM

Submitted: 04/18/2013 09:15
Reported: 04/30/2013 14:14

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

7-505 SDG#: PH033-04

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00159	3a Mercury 7471A	SW-846 7471B	1	131090638001	04/23/2013 07:20	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	131150637001	04/25/2013 22:32	Annamaria Stipkovits	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	131090638001	04/23/2013 01:45	Annamaria Stipkovits	1
00394	15a pH by 9045C	SW-846 9045D modified	1	13108039401A	04/18/2013 20:00	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13115162401A	04/25/2013 19:23	Scott W Freisher	1

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

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Analysis Report

Sample Description: SL-502-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7026479
LLI Group # 1383780
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/17/2013 13:25 by SM

Submitted: 04/18/2013 09:15
Reported: 04/30/2013 14:14

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

7-502 SDG#: PH033-05

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.69	1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.34	1
12969	Anthracene	120-12-7	0.92	J	1.7	0.34	1
12969	Benzo(a)anthracene	56-55-3	35		1.7	0.69	1
12969	Benzo(a)pyrene	50-32-8	29		1.7	0.69	1
12969	Benzo(b)fluoranthene	205-99-2	58		1.7	0.69	1
12969	Benzo(e)pyrene	192-97-2	20		18	3.4	1
12969	Benzo(g,h,i)perylene	191-24-2	8.3		1.7	0.69	1
12969	Benzo(k)fluoranthene	207-08-9	23		1.7	0.69	1
12969	Butylbenzylphthalate	85-68-7	19	U	19	6.2	1
12969	Di-n-butylphthalate	84-74-2	19	U	19	6.2	1
12969	Chrysene	218-01-9	32		1.7	0.34	1
12969	Dibenz(a,h)anthracene	53-70-3	2.8		1.7	0.69	1
12969	Diethylphthalate	84-66-2	19	U	19	6.2	1
12969	Dimethylphthalate	131-11-3	19	U	19	6.2	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	12	J	19	6.2	1
12969	Fluoranthene	206-44-0	46		1.7	0.69	1
12969	Fluorene	86-73-7	1.7	U	1.7	0.69	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	8.7		1.7	0.69	1
12969	1-Methylnaphthalene	90-12-0	1.7	U	1.7	0.69	1
12969	2-Methylnaphthalene	91-57-6	0.75	J	1.7	0.69	1
12969	Naphthalene	91-20-3	1.2	J	1.7	0.69	1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.69	1
12969	Di-n-octylphthalate	117-84-0	19	U	19	6.2	1
12969	Phenanthrene	85-01-8	5.2		1.7	0.69	1
12969	Pyrene	129-00-0	46		1.7	0.69	1
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
10592	Aroclor 5432	63496-31-1	34	U	34	10	1
10592	Aroclor 5442	12642-23-8	34	U	34	10	1
10592	Aroclor 5460	11126-42-4	24	J	34	10	1
10592	PCB-1016	12674-11-2	17	U	17	3.4	1
10592	PCB-1221	11104-28-2	17	U	17	5.2	1
10592	PCB-1232	11141-16-5	17	U	17	4.2	1
10592	PCB-1242	53469-21-9	17	U	17	3.4	1
10592	PCB-1248	12672-29-6	17	U	17	3.4	1
10592	PCB-1254	11097-69-1	18		17	4.5	1
10592	PCB-1260	11096-82-5	17	U	17	4.0	1
10592	PCB-1262	37324-23-5	17	U	17	3.4	1
10592	PCB-1268	11100-14-4	17	U	17	3.4	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.2	U	5.2	2.1	1
12952	EFH (C15-C20)	n.a.	2.1	J	5.2	2.1	1
12952	EFH (C21-C30)	n.a.	11		5.2	2.1	1
12952	EFH (C30-C40)	n.a.	27		10	4.1	1
12952	EFH (C8-C11)	n.a.	5.2	U	5.2	2.1	1
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	

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

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Analysis Report

Sample Description: SL-502-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7026479
LLI Group # 1383780
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/17/2013 13:25 by SM

Submitted: 04/18/2013 09:15
Reported: 04/30/2013 14:14

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

7-502 SDG#: PH033-05

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	18,900		41.0	7.89	1
06944	Antimony	7440-36-0	0.580	J	4.10	0.512	1
06935	Arsenic	7440-38-2	7.04		4.10	0.338	1
06946	Barium	7440-39-3	114		1.02	0.0338	1
06947	Beryllium	7440-41-7	0.695	J	1.02	0.0686	1
07914	Boron	7440-42-8	3.38	J	10.2	0.850	1
06949	Cadmium	7440-43-9	0.204	J	1.02	0.0338	1
01650	Calcium	7440-70-2	3,700		20.5	4.12	1
06951	Chromium	7440-47-3	24.7		3.07	0.0901	1
06952	Cobalt	7440-48-4	6.47		1.02	0.0921	1
06953	Copper	7440-50-8	17.3		2.05	0.184	1
01654	Iron	7439-89-6	26,900		81.9	7.78	2
06955	Lead	7439-92-1	21.7		3.07	0.481	1
01656	Lithium	7439-93-2	32.7		4.1	0.56	1
01657	Magnesium	7439-95-4	6,200		10.2	1.77	1
06958	Manganese	7439-96-5	368		1.02	0.0850	1
06960	Molybdenum	7439-98-7	0.404	J	2.05	0.174	1
06961	Nickel	7440-02-0	15.4		2.05	0.113	1
10145	Phosphorus	7723-14-0	447		10.2	0.522	1
01662	Potassium	7440-09-7	4,190		102	13.8	1
01667	Sodium	7440-23-5	87.1	J	102	17.1	1
06969	Tin	7440-31-5	3.62	J	10.2	0.225	1
06970	Titanium	7440-32-6	1,470		1.02	0.174	1
06971	Vanadium	7440-62-2	49.8		1.02	0.113	1
06972	Zinc	7440-66-6	89.4		4.10	0.205	1
10146	Zirconium	7440-67-7	3.53	J	5.12	0.850	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.162	J	0.410	0.102	2
06142	Silver	7440-22-4	0.0651	J	0.205	0.0205	2
06144	Strontium	7440-24-6	22.3		0.410	0.0348	2
06145	Thallium	7440-28-0	0.338		0.205	0.0307	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0196	J	0.0201	0.0104	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045C	n.a.	7.02		0.0100	0.0100	1
	The pH was measured in water at 22.1 C.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	3.3		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

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

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Analysis Report

Sample Description: SL-502-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7026479
LLI Group # 1383780
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/17/2013 13:25 by SM

Submitted: 04/18/2013 09:15
Reported: 04/30/2013 14:14

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

7-502 SDG#: PH033-05

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0442	JQ	1.02	0.0245	1
11031	12378-PeCDD	40321-76-4	0.277	JB	5.08	0.0414	1
11031	123478-HxCDD	39227-28-6	0.926	JB	5.08	0.0424	1
11031	123678-HxCDD	57653-85-7	1.00	JB	5.08	0.0419	1
11031	123789-HxCDD	19408-74-3	0.746	JB	5.08	0.0404	1
11031	1234678-HpCDD	35822-46-9	25.7	B	5.08	0.0636	1
11031	OCDD	3268-87-9	248	B	10.2	0.0397	1
11031	2378-TCDF	51207-31-9	0.653	J	1.02	0.0638	1
11031	12378-PeCDF	57117-41-6	2.25	JB	5.08	0.0362	1
11031	23478-PeCDF	57117-31-4	0.984	JB	5.08	0.0341	1
11031	123478-HxCDF	70648-26-9	0.788	JBQ	5.08	0.0336	1
11031	123678-HxCDF	57117-44-9	0.525	JB	5.08	0.0313	1
11031	123789-HxCDF	72918-21-9	0.232	JB	5.08	0.0359	1
11031	234678-HxCDF	60851-34-5	0.497	JB	5.08	0.0326	1
11031	1234678-HpCDF	67562-39-4	3.89	JB	5.08	0.0238	1
11031	1234789-HpCDF	55673-89-7	0.448	JB	5.08	0.0304	1
11031	OCDF	39001-02-0	7.16	JB	10.2	0.0274	1
Toxic Equivalents	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	1.47				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	73	25 - 164
13C12-12378-PeCDD	71	25 - 181
13C12-123478-HxCDD	83	32 - 141
13C12-123678-HxCDD	87	28 - 130
13C12-123789-HxCDD	87	28 - 130
13C12-1234678-HpCDD	81	23 - 140
13C12-OCDD	81	17 - 157
13C12-2378-TCDF	70	24 - 169
13C12-12378-PeCDF	70	24 - 185
13C12-23478-PeCDF	71	21 - 178
13C12-123478-HxCDF	83	26 - 152
13C12-123678-HxCDF	85	26 - 123
13C12-234678-HxCDF	83	28 - 136
13C12-123789-HxCDF	85	29 - 147
13C12-1234678-HpCDF	90	28 - 143
13C12-1234789-HpCDF	80	26 - 138
13C12-OCDF	79	17 - 157

Dioxins/Furans Data Qualifiers:

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

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

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Analysis Report

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Sample Description: SL-502-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7026479
LLI Group # 1383780
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/17/2013 13:25 by SM

Submitted: 04/18/2013 09:15
Reported: 04/30/2013 14:14

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

7-502 SDG#: PH033-05

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

F *Interference is present*
S *Saturation of detection signal*

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

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Analysis Report

Sample Description: SL-502-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7026479
LLI Group # 1383780
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/17/2013 13:25 by SM

Submitted: 04/18/2013 09:15
Reported: 04/30/2013 14:14

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

7-502 SDG#: PH033-05

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13110SLE026	04/29/2013	01:17	Holly Berry	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	13110SLE026	04/22/2013	02:00	Sherry L Morrow	1
10592	19a PCBs and PCTs 8082A	SW-846 8082A	1	131100011A	04/23/2013	08:59	Jessica L Miller	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	131100011A	04/22/2013	08:00	Olivia Arosemena	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	131090007A	04/23/2013	07:12	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	131090007A	04/19/2013	16:25	JoElla L Rice	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13109001	04/22/2013	20:28	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13109001	04/19/2013	11:45	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010C	1	131150637001	04/28/2013	19:10	Tara L Snyder	1
06944	Antimony	SW-846 6010C	1	131150637001	04/28/2013	19:10	Tara L Snyder	1
06935	Arsenic	SW-846 6010C	1	131150637001	04/28/2013	19:10	Tara L Snyder	1
06946	Barium	SW-846 6010C	1	131150637001	04/28/2013	19:10	Tara L Snyder	1
06947	Beryllium	SW-846 6010C	1	131150637001	04/28/2013	19:10	Tara L Snyder	1
07914	Boron	SW-846 6010C	1	131150637001	04/28/2013	19:10	Tara L Snyder	1
06949	Cadmium	SW-846 6010C	1	131150637001	04/28/2013	19:10	Tara L Snyder	1
01650	Calcium	SW-846 6010C	1	131150637001	04/28/2013	19:10	Tara L Snyder	1
06951	Chromium	SW-846 6010C	1	131150637001	04/28/2013	19:10	Tara L Snyder	1
06952	Cobalt	SW-846 6010C	1	131150637001	04/28/2013	19:10	Tara L Snyder	1
06953	Copper	SW-846 6010C	1	131150637001	04/28/2013	19:10	Tara L Snyder	1
01654	Iron	SW-846 6010C	1	131150637001	04/29/2013	21:32	Katlin N Cataldi	2
06955	Lead	SW-846 6010C	1	131150637001	04/28/2013	19:10	Tara L Snyder	1
01656	Lithium	SW-846 6010C	1	131150637001	04/28/2013	19:10	Tara L Snyder	1
01657	Magnesium	SW-846 6010C	1	131150637001	04/28/2013	19:10	Tara L Snyder	1
06958	Manganese	SW-846 6010C	1	131150637001	04/28/2013	19:10	Tara L Snyder	1
06960	Molybdenum	SW-846 6010C	1	131150637001	04/28/2013	19:10	Tara L Snyder	1
06961	Nickel	SW-846 6010C	1	131150637001	04/28/2013	19:10	Tara L Snyder	1
10145	Phosphorus	SW-846 6010C	1	131150637001	04/28/2013	19:10	Tara L Snyder	1
01662	Potassium	SW-846 6010C	1	131150637001	04/28/2013	19:10	Tara L Snyder	1
01667	Sodium	SW-846 6010C	1	131150637001	04/28/2013	19:10	Tara L Snyder	1
06969	Tin	SW-846 6010C	1	131150637001	04/28/2013	19:10	Tara L Snyder	1
06970	Titanium	SW-846 6010C	1	131150637001	04/28/2013	19:10	Tara L Snyder	1
06971	Vanadium	SW-846 6010C	1	131150637001	04/28/2013	19:10	Tara L Snyder	1
06972	Zinc	SW-846 6010C	1	131150637001	04/28/2013	19:10	Tara L Snyder	1
10146	Zirconium	SW-846 6010C	1	131150637001	04/28/2013	19:10	Tara L Snyder	1
06141	Selenium	SW-846 6020A	1	131150637001B	04/29/2013	08:54	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	131150637001A	04/29/2013	08:54	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	131150637001A	04/29/2013	08:54	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	131150637001A	04/29/2013	08:54	Choon Y Tian	2

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

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Analysis Report

Sample Description: SL-502-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7026479
LLI Group # 1383780
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/17/2013 13:25 by SM

Submitted: 04/18/2013 09:15
Reported: 04/30/2013 14:14

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

7-502 SDG#: PH033-05

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00159	3a Mercury 7471A	SW-846 7471B	1	131090638001	04/23/2013 07:22	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	131150637001	04/25/2013 22:32	Annamaria Stipkovits	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	131090638001	04/23/2013 01:45	Annamaria Stipkovits	1
00394	15a pH by 9045C	SW-846 9045D modified	1	13108039401A	04/18/2013 20:00	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13115162401A	04/25/2013 19:23	Scott W Freisher	1

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

Sample Description: SL-501-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7026480
LLI Group # 1383780
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/17/2013 14:00 by SM

Submitted: 04/18/2013 09:15
Reported: 04/30/2013 14:14

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

7-501 SDG#: PH033-06

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.68	1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.34	1
12969	Anthracene	120-12-7	0.83	J	1.7	0.34	1
12969	Benzo(a)anthracene	56-55-3	6.3		1.7	0.68	1
12969	Benzo(a)pyrene	50-32-8	7.5		1.7	0.68	1
12969	Benzo(b)fluoranthene	205-99-2	12		1.7	0.68	1
12969	Benzo(e)pyrene	192-97-2	4.8	J	17	3.4	1
12969	Benzo(g,h,i)perylene	191-24-2	2.7		1.7	0.68	1
12969	Benzo(k)fluoranthene	207-08-9	8.3		1.7	0.68	1
12969	Butylbenzylphthalate	85-68-7	18	U	18	6.1	1
12969	Di-n-butylphthalate	84-74-2	18	U	18	6.1	1
12969	Chrysene	218-01-9	8.5		1.7	0.34	1
12969	Dibenz(a,h)anthracene	53-70-3	0.99	J	1.7	0.68	1
12969	Diethylphthalate	84-66-2	18	U	18	6.1	1
12969	Dimethylphthalate	131-11-3	18	U	18	6.1	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	18	U	18	6.1	1
12969	Fluoranthene	206-44-0	11		1.7	0.68	1
12969	Fluorene	86-73-7	1.7	U	1.7	0.68	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	2.7		1.7	0.68	1
12969	1-Methylnaphthalene	90-12-0	1.7	U	1.7	0.68	1
12969	2-Methylnaphthalene	91-57-6	1.7	U	1.7	0.68	1
12969	Naphthalene	91-20-3	1.7	U	1.7	0.68	1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.68	1
12969	Di-n-octylphthalate	117-84-0	18	U	18	6.1	1
12969	Phenanthrene	85-01-8	4.2		1.7	0.68	1
12969	Pyrene	129-00-0	12		1.7	0.68	1
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
10592	Aroclor 5432	63496-31-1	33	U	33	10	1
10592	Aroclor 5442	12642-23-8	33	U	33	10	1
10592	Aroclor 5460	11126-42-4	33	U	33	10	1
10592	PCB-1016	12674-11-2	17	U	17	3.3	1
10592	PCB-1221	11104-28-2	17	U	17	5.1	1
10592	PCB-1232	11141-16-5	17	U	17	4.1	1
10592	PCB-1242	53469-21-9	17	U	17	3.3	1
10592	PCB-1248	12672-29-6	17	U	17	3.3	1
10592	PCB-1254	11097-69-1	17	U	17	4.4	1
10592	PCB-1260	11096-82-5	17	U	17	3.9	1
10592	PCB-1262	37324-23-5	17	U	17	3.3	1
10592	PCB-1268	11100-14-4	17	U	17	3.3	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.1	U	5.1	2.0	1
12952	EFH (C15-C20)	n.a.	5.1	U	5.1	2.0	1
12952	EFH (C21-C30)	n.a.	7.5		5.1	2.0	1
12952	EFH (C30-C40)	n.a.	27		10	4.1	1
12952	EFH (C8-C11)	n.a.	5.1	U	5.1	2.0	1
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	

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

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Analysis Report

Sample Description: SL-501-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7026480
LLI Group # 1383780
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/17/2013 14:00 by SM

Submitted: 04/18/2013 09:15
Reported: 04/30/2013 14:14

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

7-501 SDG#: PH033-06

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	13,900		39.9	7.68	1
06944	Antimony	7440-36-0	3.99	U	3.99	0.498	1
06935	Arsenic	7440-38-2	8.43		3.99	0.329	1
06946	Barium	7440-39-3	100		0.996	0.0329	1
06947	Beryllium	7440-41-7	0.551	J	0.996	0.0668	1
07914	Boron	7440-42-8	4.03	J	9.96	0.827	1
06949	Cadmium	7440-43-9	0.239	J	0.996	0.0329	1
01650	Calcium	7440-70-2	2,700		19.9	4.01	1
06951	Chromium	7440-47-3	16.2		2.99	0.0877	1
06952	Cobalt	7440-48-4	4.47		0.996	0.0897	1
06953	Copper	7440-50-8	12.7		1.99	0.179	1
01654	Iron	7439-89-6	19,800		39.9	3.79	1
06955	Lead	7439-92-1	10.1		2.99	0.468	1
01656	Lithium	7439-93-2	23.6		4.0	0.55	1
01657	Magnesium	7439-95-4	3,810		9.96	1.72	1
06958	Manganese	7439-96-5	313		0.996	0.0827	1
06960	Molybdenum	7439-98-7	0.336	J	1.99	0.169	1
06961	Nickel	7440-02-0	10.3		1.99	0.110	1
10145	Phosphorus	7723-14-0	390		9.96	0.508	1
01662	Potassium	7440-09-7	3,490		99.6	13.5	1
01667	Sodium	7440-23-5	84.1	J	99.6	16.6	1
06969	Tin	7440-31-5	2.94	J	9.96	0.219	1
06970	Titanium	7440-32-6	1,080		0.996	0.169	1
06971	Vanadium	7440-62-2	30.9		0.996	0.110	1
06972	Zinc	7440-66-6	88.1		3.99	0.199	1
10146	Zirconium	7440-67-7	3.15	J	4.98	0.827	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.399	U	0.399	0.0996	2
06142	Silver	7440-22-4	0.0465	J	0.199	0.0199	2
06144	Strontium	7440-24-6	20.7		0.399	0.0339	2
06145	Thallium	7440-28-0	0.237		0.199	0.0299	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0226		0.0194	0.0100	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045C	n.a.	6.95		0.0100	0.0100	1
	The pH was measured in water at 21.8 C.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	1.6		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

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

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Analysis Report

Sample Description: SL-501-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7026480
LLI Group # 1383780
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/17/2013 14:00 by SM

Submitted: 04/18/2013 09:15
Reported: 04/30/2013 14:14

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

7-501 SDG#: PH033-06

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.981	U	0.981	0.0300	1
11031	12378-PeCDD	40321-76-4	0.0848	JBQ	4.90	0.0364	1
11031	123478-HxCDD	39227-28-6	0.241	JBQ	4.90	0.0434	1
11031	123678-HxCDD	57653-85-7	0.324	JB	4.90	0.0421	1
11031	123789-HxCDD	19408-74-3	0.420	JB	4.90	0.0401	1
11031	1234678-HpCDD	35822-46-9	4.02	JB	4.90	0.0365	1
11031	OCDD	3268-87-9	38.6	B	9.81	0.0346	1
11031	2378-TCDF	51207-31-9	0.0772	JQ	0.981	0.0481	1
11031	12378-PeCDF	57117-41-6	0.360	JB	4.90	0.0265	1
11031	23478-PeCDF	57117-31-4	0.373	JBQ	4.90	0.0257	1
11031	123478-HxCDF	70648-26-9	0.234	JBQ	4.90	0.0397	1
11031	123678-HxCDF	57117-44-9	0.195	JB	4.90	0.0376	1
11031	123789-HxCDF	72918-21-9	0.277	JB	4.90	0.0379	1
11031	234678-HxCDF	60851-34-5	0.242	JB	4.90	0.0361	1
11031	1234678-HpCDF	67562-39-4	0.929	JB	4.90	0.0279	1
11031	1234789-HpCDF	55673-89-7	0.161	JB	4.90	0.0377	1
11031	OCDF	39001-02-0	1.49	JB	9.81	0.0317	1
Toxic Equivalents	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.220				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	64	25 - 164
13C12-12378-PeCDD	71	25 - 181
13C12-123478-HxCDD	74	32 - 141
13C12-123678-HxCDD	81	28 - 130
13C12-123789-HxCDD	79	28 - 130
13C12-1234678-HpCDD	74	23 - 140
13C12-OCDD	73	17 - 157
13C12-2378-TCDF	63	24 - 169
13C12-12378-PeCDF	70	24 - 185
13C12-23478-PeCDF	70	21 - 178
13C12-123478-HxCDF	75	26 - 152
13C12-123678-HxCDF	78	26 - 123
13C12-234678-HxCDF	75	28 - 136
13C12-123789-HxCDF	79	29 - 147
13C12-1234678-HpCDF	84	28 - 143
13C12-1234789-HpCDF	70	26 - 138
13C12-OCDF	67	17 - 157

Dioxins/Furans Data Qualifiers:

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

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

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Analysis Report

Sample Description: SL-501-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7026480
LLI Group # 1383780
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/17/2013 14:00 by SM

Submitted: 04/18/2013 09:15
Reported: 04/30/2013 14:14

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

7-501 SDG#: PH033-06

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

F *Interference is present*
S *Saturation of detection signal*

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

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Analysis Report

Sample Description: SL-501-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7026480
LLI Group # 1383780
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/17/2013 14:00 by SM

Submitted: 04/18/2013 09:15
Reported: 04/30/2013 14:14

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

7-501 SDG#: PH033-06

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13110SLE026	04/29/2013	01:49	Holly Berry	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	13110SLE026	04/22/2013	02:00	Sherry L Morrow	1
10592	19a PCBs and PCTs 8082A	SW-846 8082A	1	131100011A	04/23/2013	09:18	Monica M Souders	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	131100011A	04/22/2013	08:00	Olivia Arosemena	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	131090007A	04/23/2013	07:33	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	131090007A	04/19/2013	16:25	JoElla L Rice	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13109001	04/22/2013	21:25	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13109001	04/19/2013	11:45	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010C	1	131150637001	04/28/2013	19:14	Tara L Snyder	1
06944	Antimony	SW-846 6010C	1	131150637001	04/28/2013	19:14	Tara L Snyder	1
06935	Arsenic	SW-846 6010C	1	131150637001	04/28/2013	19:14	Tara L Snyder	1
06946	Barium	SW-846 6010C	1	131150637001	04/28/2013	19:14	Tara L Snyder	1
06947	Beryllium	SW-846 6010C	1	131150637001	04/28/2013	19:14	Tara L Snyder	1
07914	Boron	SW-846 6010C	1	131150637001	04/28/2013	19:14	Tara L Snyder	1
06949	Cadmium	SW-846 6010C	1	131150637001	04/28/2013	19:14	Tara L Snyder	1
01650	Calcium	SW-846 6010C	1	131150637001	04/28/2013	19:14	Tara L Snyder	1
06951	Chromium	SW-846 6010C	1	131150637001	04/28/2013	19:14	Tara L Snyder	1
06952	Cobalt	SW-846 6010C	1	131150637001	04/28/2013	19:14	Tara L Snyder	1
06953	Copper	SW-846 6010C	1	131150637001	04/28/2013	19:14	Tara L Snyder	1
01654	Iron	SW-846 6010C	1	131150637001	04/28/2013	19:14	Tara L Snyder	1
06955	Lead	SW-846 6010C	1	131150637001	04/28/2013	19:14	Tara L Snyder	1
01656	Lithium	SW-846 6010C	1	131150637001	04/28/2013	19:14	Tara L Snyder	1
01657	Magnesium	SW-846 6010C	1	131150637001	04/28/2013	19:14	Tara L Snyder	1
06958	Manganese	SW-846 6010C	1	131150637001	04/28/2013	19:14	Tara L Snyder	1
06960	Molybdenum	SW-846 6010C	1	131150637001	04/28/2013	19:14	Tara L Snyder	1
06961	Nickel	SW-846 6010C	1	131150637001	04/28/2013	19:14	Tara L Snyder	1
10145	Phosphorus	SW-846 6010C	1	131150637001	04/28/2013	19:14	Tara L Snyder	1
01662	Potassium	SW-846 6010C	1	131150637001	04/28/2013	19:14	Tara L Snyder	1
01667	Sodium	SW-846 6010C	1	131150637001	04/28/2013	19:14	Tara L Snyder	1
06969	Tin	SW-846 6010C	1	131150637001	04/28/2013	19:14	Tara L Snyder	1
06970	Titanium	SW-846 6010C	1	131150637001	04/28/2013	19:14	Tara L Snyder	1
06971	Vanadium	SW-846 6010C	1	131150637001	04/28/2013	19:14	Tara L Snyder	1
06972	Zinc	SW-846 6010C	1	131150637001	04/28/2013	19:14	Tara L Snyder	1
10146	Zirconium	SW-846 6010C	1	131150637001	04/28/2013	19:14	Tara L Snyder	1
06141	Selenium	SW-846 6020A	1	131150637001B	04/29/2013	08:57	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	131150637001A	04/29/2013	08:57	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	131150637001A	04/29/2013	08:57	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	131150637001A	04/29/2013	08:57	Choon Y Tian	2

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

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Analysis Report

Sample Description: SL-501-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7026480
LLI Group # 1383780
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/17/2013 14:00 by SM

Submitted: 04/18/2013 09:15
Reported: 04/30/2013 14:14

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

7-501 SDG#: PH033-06

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00159	3a Mercury 7471A	SW-846 7471B	1	131090638001	04/23/2013 07:28	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	131150637001	04/25/2013 22:32	Annamaria Stipkovits	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	131090638001	04/23/2013 01:45	Annamaria Stipkovits	1
00394	15a pH by 9045C	SW-846 9045D modified	1	13108039401A	04/18/2013 20:00	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13115162401A	04/25/2013 19:23	Scott W Freisher	1

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

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Analysis Report

Sample Description: SL-500-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7026481
LLI Group # 1383780
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/17/2013 14:45 by SM

Submitted: 04/18/2013 09:15
Reported: 04/30/2013 14:14

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

7-500 SDG#: PH033-07*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.68	1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.34	1
12969	Anthracene	120-12-7	1.7	U	1.7	0.34	1
12969	Benzo(a)anthracene	56-55-3	0.90	J	1.7	0.68	1
12969	Benzo(a)pyrene	50-32-8	1.2	J	1.7	0.68	1
12969	Benzo(b)fluoranthene	205-99-2	2.8		1.7	0.68	1
12969	Benzo(e)pyrene	192-97-2	17	U	17	3.4	1
12969	Benzo(g,h,i)perylene	191-24-2	0.86	J	1.7	0.68	1
12969	Benzo(k)fluoranthene	207-08-9	4.0		1.7	0.68	1
12969	Butylbenzylphthalate	85-68-7	18	U	18	6.1	1
12969	Di-n-butylphthalate	84-74-2	18	U	18	6.1	1
12969	Chrysene	218-01-9	2.1		1.7	0.34	1
12969	Dibenz(a,h)anthracene	53-70-3	1.7	U	1.7	0.68	1
12969	Diethylphthalate	84-66-2	18	U	18	6.1	1
12969	Dimethylphthalate	131-11-3	18	U	18	6.1	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	7.2	J	18	6.1	1
12969	Fluoranthene	206-44-0	2.4		1.7	0.68	1
12969	Fluorene	86-73-7	1.7	U	1.7	0.68	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	0.84	J	1.7	0.68	1
12969	1-Methylnaphthalene	90-12-0	1.7	U	1.7	0.68	1
12969	2-Methylnaphthalene	91-57-6	1.7	U	1.7	0.68	1
12969	Naphthalene	91-20-3	1.7	U	1.7	0.68	1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.68	1
12969	Di-n-octylphthalate	117-84-0	18	U	18	6.1	1
12969	Phenanthrene	85-01-8	1.1	J	1.7	0.68	1
12969	Pyrene	129-00-0	2.2		1.7	0.68	1
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
10592	Aroclor 5432	63496-31-1	33	U	33	10	1
10592	Aroclor 5442	12642-23-8	33	U	33	10	1
10592	Aroclor 5460	11126-42-4	33	U	33	10	1
10592	PCB-1016	12674-11-2	17	U	17	3.3	1
10592	PCB-1221	11104-28-2	17	U	17	5.1	1
10592	PCB-1232	11141-16-5	17	U	17	4.1	1
10592	PCB-1242	53469-21-9	17	U	17	3.3	1
10592	PCB-1248	12672-29-6	17	U	17	3.3	1
10592	PCB-1254	11097-69-1	17	U	17	4.4	1
10592	PCB-1260	11096-82-5	17	U	17	3.9	1
10592	PCB-1262	37324-23-5	17	U	17	3.3	1
10592	PCB-1268	11100-14-4	17	U	17	3.3	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.1	U	5.1	2.0	1
12952	EFH (C15-C20)	n.a.	5.1	U	5.1	2.0	1
12952	EFH (C21-C30)	n.a.	16		5.1	2.0	1
12952	EFH (C30-C40)	n.a.	39		10	4.1	1
12952	EFH (C8-C11)	n.a.	5.1	U	5.1	2.0	1
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	

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

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Analysis Report

Sample Description: SL-500-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7026481
LLI Group # 1383780
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/17/2013 14:45 by SM

Submitted: 04/18/2013 09:15
Reported: 04/30/2013 14:14

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

7-500 SDG#: PH033-07*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	12,000		39.7	7.65	1
06944	Antimony	7440-36-0	3.97	U	3.97	0.496	1
06935	Arsenic	7440-38-2	9.73		3.97	0.328	1
06946	Barium	7440-39-3	74.2		0.993	0.0328	1
06947	Beryllium	7440-41-7	0.466	J	0.993	0.0665	1
07914	Boron	7440-42-8	4.56	J	9.93	0.824	1
06949	Cadmium	7440-43-9	0.165	J	0.993	0.0328	1
01650	Calcium	7440-70-2	2,430		19.9	3.99	1
06951	Chromium	7440-47-3	13.5		2.98	0.0874	1
06952	Cobalt	7440-48-4	3.87		0.993	0.0893	1
06953	Copper	7440-50-8	9.56		1.99	0.179	1
01654	Iron	7439-89-6	17,000		39.7	3.77	1
06955	Lead	7439-92-1	11.0		2.98	0.467	1
01656	Lithium	7439-93-2	21.9		4.0	0.55	1
01657	Magnesium	7439-95-4	3,440		9.93	1.72	1
06958	Manganese	7439-96-5	260		0.993	0.0824	1
06960	Molybdenum	7439-98-7	0.257	J	1.99	0.169	1
06961	Nickel	7440-02-0	8.27		1.99	0.109	1
10145	Phosphorus	7723-14-0	298		9.93	0.506	1
01662	Potassium	7440-09-7	2,330		99.3	13.4	1
01667	Sodium	7440-23-5	118		99.3	16.6	1
06969	Tin	7440-31-5	3.07	J	9.93	0.218	1
06970	Titanium	7440-32-6	876		0.993	0.169	1
06971	Vanadium	7440-62-2	27.3		0.993	0.109	1
06972	Zinc	7440-66-6	87.9		3.97	0.199	1
10146	Zirconium	7440-67-7	2.35	J	4.96	0.824	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.397	U	0.397	0.0993	2
06142	Silver	7440-22-4	0.0356	J	0.199	0.0199	2
06144	Strontium	7440-24-6	17.2		0.397	0.0338	2
06145	Thallium	7440-28-0	0.189	J	0.199	0.0298	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0178	J	0.0192	0.0099	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045C	n.a.	7.28		0.0100	0.0100	1
	The pH was measured in water at 22 C.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	2.2		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

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

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Analysis Report

Sample Description: SL-500-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7026481
LLI Group # 1383780
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/17/2013 14:45 by SM

Submitted: 04/18/2013 09:15
Reported: 04/30/2013 14:14

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

7-500 SDG#: PH033-07*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0274	JQ	1.00	0.0246	1
11031	12378-PeCDD	40321-76-4	0.184	JBQ	5.00	0.0323	1
11031	123478-HxCDD	39227-28-6	0.421	JB	5.00	0.0471	1
11031	123678-HxCDD	57653-85-7	0.688	JB	5.00	0.0450	1
11031	123789-HxCDD	19408-74-3	0.437	JB	5.00	0.0432	1
11031	1234678-HpCDD	35822-46-9	14.8	B	5.00	0.0428	1
11031	OCDD	3268-87-9	154	B	10.0	0.0349	1
11031	2378-TCDF	51207-31-9	0.271	J	1.00	0.0404	1
11031	12378-PeCDF	57117-41-6	0.520	JB	5.00	0.0260	1
11031	23478-PeCDF	57117-31-4	0.472	JBQ	5.00	0.0241	1
11031	123478-HxCDF	70648-26-9	0.949	JB	5.00	0.0352	1
11031	123678-HxCDF	57117-44-9	0.307	JB	5.00	0.0337	1
11031	123789-HxCDF	72918-21-9	5.00	U	5.00	0.0339	1
11031	234678-HxCDF	60851-34-5	0.392	JBQ	5.00	0.0315	1
11031	1234678-HpCDF	67562-39-4	2.82	JB	5.00	0.0246	1
11031	1234789-HpCDF	55673-89-7	0.343	JB	5.00	0.0324	1
11031	OCDF	39001-02-0	4.86	JB	10.0	0.0282	1
Toxic Equivalents	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.551				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	76	25 - 164
13C12-12378-PeCDD	78	25 - 181
13C12-123478-HxCDD	82	32 - 141
13C12-123678-HxCDD	89	28 - 130
13C12-123789-HxCDD	86	28 - 130
13C12-1234678-HpCDD	82	23 - 140
13C12-OCDD	79	17 - 157
13C12-2378-TCDF	75	24 - 169
13C12-12378-PeCDF	78	24 - 185
13C12-23478-PeCDF	79	21 - 178
13C12-123478-HxCDF	85	26 - 152
13C12-123678-HxCDF	86	26 - 123
13C12-234678-HxCDF	85	28 - 136
13C12-123789-HxCDF	89	29 - 147
13C12-1234678-HpCDF	96	28 - 143
13C12-1234789-HpCDF	81	26 - 138
13C12-OCDF	78	17 - 157

Dioxins/Furans Data Qualifiers:

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

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

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Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: SL-500-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7026481
LLI Group # 1383780
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/17/2013 14:45 by SM

Submitted: 04/18/2013 09:15
Reported: 04/30/2013 14:14

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

7-500 SDG#: PH033-07*

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

F *Interference is present*
S *Saturation of detection signal*

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

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2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Analysis Report

Sample Description: SL-500-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7026481
LLI Group # 1383780
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/17/2013 14:45 by SM

Submitted: 04/18/2013 09:15
Reported: 04/30/2013 14:14

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

7-500 SDG#: PH033-07*

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13110SLE026	04/29/2013 02:20	Holly Berry	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	13110SLE026	04/22/2013 02:00	Sherry L Morrow	1
10592	19a PCBs and PCTs 8082A	SW-846 8082A	1	131100011A	04/23/2013 09:36	Monica M Souders	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	131100011A	04/22/2013 08:00	Olivia Arosemena	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	131090007A	04/23/2013 10:19	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	131090007A	04/19/2013 16:25	JoElla L Rice	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13109001	04/22/2013 22:21	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13109001	04/19/2013 11:45	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010C	1	131150637001	04/28/2013 19:18	Tara L Snyder	1
06944	Antimony	SW-846 6010C	1	131150637001	04/28/2013 19:18	Tara L Snyder	1
06935	Arsenic	SW-846 6010C	1	131150637001	04/28/2013 19:18	Tara L Snyder	1
06946	Barium	SW-846 6010C	1	131150637001	04/28/2013 19:18	Tara L Snyder	1
06947	Beryllium	SW-846 6010C	1	131150637001	04/28/2013 19:18	Tara L Snyder	1
07914	Boron	SW-846 6010C	1	131150637001	04/28/2013 19:18	Tara L Snyder	1
06949	Cadmium	SW-846 6010C	1	131150637001	04/28/2013 19:18	Tara L Snyder	1
01650	Calcium	SW-846 6010C	1	131150637001	04/28/2013 19:18	Tara L Snyder	1
06951	Chromium	SW-846 6010C	1	131150637001	04/28/2013 19:18	Tara L Snyder	1
06952	Cobalt	SW-846 6010C	1	131150637001	04/28/2013 19:18	Tara L Snyder	1
06953	Copper	SW-846 6010C	1	131150637001	04/28/2013 19:18	Tara L Snyder	1
01654	Iron	SW-846 6010C	1	131150637001	04/28/2013 19:18	Tara L Snyder	1
06955	Lead	SW-846 6010C	1	131150637001	04/28/2013 19:18	Tara L Snyder	1
01656	Lithium	SW-846 6010C	1	131150637001	04/28/2013 19:18	Tara L Snyder	1
01657	Magnesium	SW-846 6010C	1	131150637001	04/28/2013 19:18	Tara L Snyder	1
06958	Manganese	SW-846 6010C	1	131150637001	04/28/2013 19:18	Tara L Snyder	1
06960	Molybdenum	SW-846 6010C	1	131150637001	04/28/2013 19:18	Tara L Snyder	1
06961	Nickel	SW-846 6010C	1	131150637001	04/28/2013 19:18	Tara L Snyder	1
10145	Phosphorus	SW-846 6010C	1	131150637001	04/28/2013 19:18	Tara L Snyder	1
01662	Potassium	SW-846 6010C	1	131150637001	04/28/2013 19:18	Tara L Snyder	1
01667	Sodium	SW-846 6010C	1	131150637001	04/28/2013 19:18	Tara L Snyder	1
06969	Tin	SW-846 6010C	1	131150637001	04/28/2013 19:18	Tara L Snyder	1
06970	Titanium	SW-846 6010C	1	131150637001	04/28/2013 19:18	Tara L Snyder	1
06971	Vanadium	SW-846 6010C	1	131150637001	04/28/2013 19:18	Tara L Snyder	1
06972	Zinc	SW-846 6010C	1	131150637001	04/28/2013 19:18	Tara L Snyder	1
10146	Zirconium	SW-846 6010C	1	131150637001	04/28/2013 19:18	Tara L Snyder	1
06141	Selenium	SW-846 6020A	1	131150637001B	04/29/2013 08:59	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	131150637001A	04/29/2013 08:59	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	131150637001A	04/29/2013 08:59	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	131150637001A	04/29/2013 08:59	Choon Y Tian	2

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

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Analysis Report

Sample Description: SL-500-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7026481
LLI Group # 1383780
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/17/2013 14:45 by SM

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

7-500 SDG#: PH033-07*

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00159	3a Mercury 7471A	SW-846 7471B	1	131090638001	04/23/2013 07:30	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	131150637001	04/25/2013 22:32	Annamaria Stipkovits	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	131090638001	04/23/2013 01:45	Annamaria Stipkovits	1
00394	15a pH by 9045C	SW-846 9045D modified	1	13108039401A	04/18/2013 20:00	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13115162401A	04/25/2013 19:23	Scott W Freisher	1

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

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1383780
Reported: 04/30/13 at 02:14 PM

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 13110SLE026	Sample number(s): 7026476-7026481									
Acenaphthene	1.7	U	1.7	0.67	ug/kg	104		69-114		
Acenaphthylene	1.7	U	1.7	0.33	ug/kg	105		71-113		
Anthracene	1.7	U	1.7	0.33	ug/kg	104		75-116		
Benzo(a)anthracene	1.7	U	1.7	0.67	ug/kg	108		76-115		
Benzo(a)pyrene	1.7	U	1.7	0.67	ug/kg	114		76-117		
Benzo(b)fluoranthene	1.7	U	1.7	0.67	ug/kg	117		77-129		
Benzo(e)pyrene	17	U	17.	3.3	ug/kg	99		70-130		
Benzo(g,h,i)perylene	1.7	U	1.7	0.67	ug/kg	101		64-120		
Benzo(k)fluoranthene	1.7	U	1.7	0.67	ug/kg	120		71-120		
Butylbenzylphthalate	18	U	18.	6.0	ug/kg	102		65-131		
Di-n-butylphthalate	18	U	18.	6.0	ug/kg	103		67-140		
Chrysene	1.7	U	1.7	0.33	ug/kg	106		78-111		
Dibenz(a,h)anthracene	1.7	U	1.7	0.67	ug/kg	102		65-124		
Diethylphthalate	18	U	18.	6.0	ug/kg	103		68-125		
Dimethylphthalate	18	U	18.	6.0	ug/kg	103		70-130		
Bis(2-Ethylhexyl)phthalate	18	U	18.	6.0	ug/kg	100		67-143		
Fluoranthene	1.7	U	1.7	0.67	ug/kg	102		68-119		
Fluorene	1.7	U	1.7	0.67	ug/kg	107		75-123		
Indeno(1,2,3-cd)pyrene	1.7	U	1.7	0.67	ug/kg	101		66-122		
1-Methylnaphthalene	1.7	U	1.7	0.67	ug/kg	107		74-113		
2-Methylnaphthalene	1.7	U	1.7	0.67	ug/kg	108		78-121		
Naphthalene	1.7	U	1.7	0.67	ug/kg	104		64-120		
N-Nitrosodimethylamine	1.7	U	1.7	0.67	ug/kg	91		30-125		
Di-n-octylphthalate	18	U	18.	6.0	ug/kg	105		57-133		
Phenanthrene	1.7	U	1.7	0.67	ug/kg	102		72-110		
Pyrene	1.7	U	1.7	0.67	ug/kg	98		71-120		
Batch number: 13108A16B	Sample number(s): 7026476									
11a TPH by EPA 8015B GRO	1.0	U	1.0	0.2	mg/kg	89	82	67-119	8	30
Batch number: 13108B20A	Sample number(s): 7026475									
TPH-GRO S.CA water C5-C12	50	U	50.	20	ug/l	106	105	75-135	1	30
Batch number: 131100011A	Sample number(s): 7026476-7026481									
Aroclor 5432	33	U	33.	10	ug/kg					
Aroclor 5442	33	U	33.	10	ug/kg	75	75	36-106	0	30
Aroclor 5460	33	U	33.	10	ug/kg					
PCB-1016	17	U	17.	3.3	ug/kg	103		80-120		
PCB-1221	17	U	17.	5.1	ug/kg					
PCB-1232	17	U	17.	4.1	ug/kg					
PCB-1242	17	U	17.	3.3	ug/kg					
PCB-1248	17	U	17.	3.3	ug/kg					
PCB-1254	17	U	17.	4.4	ug/kg					

*- Outside of specification
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(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1383780
Reported: 04/30/13 at 02:14 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
PCB-1260	17	U	17.	3.9	ug/kg	115		72-120		
PCB-1262	17	U	17.	3.3	ug/kg					
PCB-1268	17	U	17.	3.3	ug/kg					
Batch number: 131090007A	Sample number(s): 7026476-7026481									
EFH (C12-C14)	5.0	U	5.0	2.0	mg/kg	89		70-123		
EFH (C15-C20)	5.0	U	5.0	2.0	mg/kg	91		75-128		
EFH (C21-C30)	5.0	U	5.0	2.0	mg/kg	92		64-134		
EFH (C30-C40)	10	U	10.	4.0	mg/kg	67		65-128		
EFH (C8-C11)	5.0	U	5.0	2.0	mg/kg	76		49-107		
Batch number: 131090638001	Sample number(s): 7026476-7026481									
3a Mercury 7471A	0.0167	U	0.0167	0.0103	mg/kg	113		85-120		
Batch number: 131150637001	Sample number(s): 7026476-7026481									
Aluminum	10.3	J	40.0	7.71	mg/kg	105		80-120		
Antimony	4.00	U	4.00	0.500	mg/kg	105		80-120		
Arsenic	4.00	U	4.00	0.330	mg/kg	104		80-120		
Barium	1.00	U	1.00	0.0330	mg/kg	102		80-120		
Beryllium	1.00	U	1.00	0.0670	mg/kg	103		80-120		
Boron	1.62	J	10.0	0.830	mg/kg	100		80-120		
Cadmium	1.00	U	1.00	0.0330	mg/kg	102		80-120		
Calcium	25.6		20.0	4.02	mg/kg	107		80-120		
Chromium	3.00	U	3.00	0.0880	mg/kg	103		80-120		
Cobalt	1.00	U	1.00	0.0900	mg/kg	103		80-120		
Copper	2.00	U	2.00	0.180	mg/kg	106		80-120		
Iron	40.0	U	40.0	3.80	mg/kg	101		80-120		
Lead	3.00	U	3.00	0.470	mg/kg	104		80-120		
Lithium	4.0	U	4.0	0.55	mg/kg	103		80-120		
Magnesium	10.0	U	10.0	1.73	mg/kg	100		80-120		
Manganese	1.00	U	1.00	0.0830	mg/kg	104		80-120		
Molybdenum	2.00	U	2.00	0.170	mg/kg	101		80-120		
Nickel	2.00	U	2.00	0.110	mg/kg	106		80-120		
Phosphorus	1.45	J	10.0	0.510	mg/kg	106		80-120		
Potassium	100 U		100.	13.5	mg/kg	101		80-120		
Sodium	100 U		100.	16.7	mg/kg	100		80-120		
Tin	1.45	J	10.0	0.220	mg/kg	103		80-120		
Titanium	1.00	U	1.00	0.170	mg/kg	103		80-120		
Vanadium	1.00	U	1.00	0.110	mg/kg	102		80-120		
Zinc	4.00	U	4.00	0.200	mg/kg	105		80-120		
Zirconium	5.00	U	5.00	0.830	mg/kg	102		80-120		
Batch number: 131150637001A	Sample number(s): 7026476-7026481									
Silver	0.200	U	0.200	0.0200	mg/kg	100		80-120		
Strontium	0.179	J	0.400	0.0340	mg/kg	98		80-120		
Thallium	0.200	U	0.200	0.0300	mg/kg	111		80-120		
Batch number: 131150637001B	Sample number(s): 7026476-7026481									
Selenium	0.400	U	0.400	0.100	mg/kg	98		80-120		
Batch number: 13108039401A	Sample number(s): 7026476-7026481									
15a pH by 9045C						100		99-101		
Batch number: 13115162401A	Sample number(s): 7026476-7026481									

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1383780
Reported: 04/30/13 at 02:14 PM

Analysis Name	Blank Result	Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
14a Moisture Content by 160.3					100		80-120		

Analysis Name	Blank Result	Blank MRL**	Blank EDL	Report Units	OPR %REC	OPRD %REC	OPR/OPRD Limits	RPD	RPD Max
Batch number: 13109001	Sample number(s): 7026476-7026481								
2378-TCDD	1.00 U	1.00	0.0214	ng/kg	93		67-158		
12378-PeCDD	0.0517 J	5.00	0.0176	ng/kg	98		70-142		
123478-HxCDD	0.0268 J	5.00	0.0152	ng/kg	102		70-164		
123678-HxCDD	0.0283 J	5.00	0.0162	ng/kg	100		76-134		
123789-HxCDD	0.0385 J	5.00	0.0144	ng/kg	100		64-162		
1234678-HpCDD	0.0607 J	5.00	0.0171	ng/kg	98		70-140		
OCDD	0.147 J	10.0	0.0176	ng/kg	98		78-144		
2378-TCDF	1.00 U	1.00	0.0169	ng/kg	96		75-158		
12378-PeCDF	0.0627 J	5.00	0.0112	ng/kg	100		80-134		
23478-PeCDF	0.0283 J	5.00	0.0102	ng/kg	100		68-160		
123478-HxCDF	0.0414 J	5.00	0.0106	ng/kg	102		72-134		
123678-HxCDF	0.0288 J	5.00	0.0103	ng/kg	98		84-130		
123789-HxCDF	0.0430 J	5.00	0.0114	ng/kg	101		78-130		
234678-HxCDF	0.0179 J	5.00	0.0103	ng/kg	99		70-156		
1234678-HpCDF	0.0593 J	5.00	0.00778	ng/kg	100		82-122		
1234789-HpCDF	0.0303 J	5.00	0.00902	ng/kg	100		78-138		
OCDF	0.0804 J	10.0	0.0234	ng/kg	99		63-170		
TEQ WHO 2005 - EDLx0.0	0.0585			ng/kg					

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 13110SLE026	Sample number(s): 7026476-7026481 UNSPK: 7026476								
Acenaphthene	103	103	48-127	0	30				
Acenaphthylene	102	104	49-121	2	30				
Anthracene	99	100	52-126	2	30				
Benzo(a)anthracene	108	104	32-135	4	30				
Benzo(a)pyrene	113	110	36-138	3	30				
Benzo(b)fluoranthene	134	129	26-142	4	30				
Benzo(e)pyrene	103	99	70-130	3	30				
Benzo(g,h,i)perylene	63	60	33-141	4	30				
Benzo(k)fluoranthene	122	115	47-129	5	30				
Butylbenzylphthalate	114	112	59-153	1	30				
Di-n-butylphthalate	93	159*	62-154	34*	30				
Chrysene	104	99	29-148	5	30				
Dibenz(a,h)anthracene	78	76	34-125	3	30				
Diethylphthalate	102	103	76-127	1	30				
Dimethylphthalate	101	102	62-136	1	30				

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1383780
Reported: 04/30/13 at 02:14 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Bis(2-Ethylhexyl)phthalate	113	111	39-167	2	30				
Fluoranthene	104	101	47-135	3	30				
Fluorene	105	105	50-129	0	30				
Indeno(1,2,3-cd)pyrene	75	71	17-136	4	30				
1-Methylnaphthalene	109	108	50-131	1	30				
2-Methylnaphthalene	110	109	28-144	1	30				
Naphthalene	102	104	31-148	2	30				
N-Nitrosodimethylamine	90	93	48-113	3	30				
Di-n-octylphthalate	154	147	52-162	5	30				
Phenanthrene	105	104	29-142	1	30				
Pyrene	103	97	26-143	7	30				
Batch number: 131100011A	Sample number(s): 7026476-7026481 UNSPK: P023137								
PCB-1016	94	93	16-146	1	50				
PCB-1260	99	99	40-134	1	50				
Batch number: 131090007A	Sample number(s): 7026476-7026481 UNSPK: P023136								
EFH (C12-C14)	101	94	49-123	7	20				
EFH (C15-C20)	81	58	49-123	13	20				
EFH (C21-C30)	130*	52	49-123	28*	20				
EFH (C30-C40)	163*	98	49-123	19	20				
EFH (C8-C11)	88	88	49-123	0	20				
Batch number: 131090638001	Sample number(s): 7026476-7026481 UNSPK: 7026476 BKG: 7026476								
3a Mercury 7471A	110	108	65-135	2	20	0.0195 U	0.0114 J	200* (1)	20
Batch number: 131150637001	Sample number(s): 7026476-7026481 UNSPK: P031213 BKG: P031213								
Aluminum	2585 (2)	2282 (2)	75-125	3	20	13,100	14,600	11	20
Antimony	67*	64*	75-125	4	20	3.96 U	0.540 J	200* (1)	20
Arsenic	95	105	75-125	7	20	4.95	5.12	3 (1)	20
Barium	104	106	75-125	1	20	70.7	77.9	10	20
Beryllium	106	104	75-125	1	20	0.522 J	0.579 J	10 (1)	20
Boron	101	100	75-125	1	20	5.72 J	7.99 J	33* (1)	20
Cadmium	97	98	75-125	1	20	0.116 J	0.138 J	17 (1)	20
Calcium	140 (2)	198 (2)	75-125	7	20	2,840	3,060	8	20
Chromium	107	104	75-125	2	20	19.7	20.4	3	20
Cobalt	100	100	75-125	0	20	4.62	5.28	13 (1)	20
Copper	111	110	75-125	0	20	12.4	13.2	7	20
Iron	3126 (2)	2463 (2)	75-125	3	20	21,800	23,500	7	20
Lead	104	185*	75-125	24*	20	28.1	43.6	43*	20
Lithium	103	101	75-125	1	20	25.6	25.7	0	20
Magnesium	249 (2)	221 (2)	75-125	1	20	5,100	5,180	2	20
Manganese	145 (2)	132 (2)	75-125	2	20	266	298	11	20
Molybdenum	99	99	75-125	0	20	0.291 J	0.314 J	8 (1)	20
Nickel	103	101	75-125	1	20	10.5	11.2	6	20
Phosphorus	78 (2)	113 (2)	75-125	7	20	420	439	4	20
Potassium	140*	137*	75-125	1	20	3,350	3,630	8	20
Sodium	99	98	75-125	1	20	73.1 J	77.5 J	6 (1)	20
Tin	94	95	75-125	1	20	3.02 J	3.24 J	7 (1)	20
Titanium	359 (2)	334 (2)	75-125	2	20	1,120	1,230	9	20

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1383780
Reported: 04/30/13 at 02:14 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Vanadium	114	112	75-125	1	20	35.4	39.1	10	20
Zinc	106	106	75-125	0	20	60.1	62.1	3	20
Zirconium	99	98	75-125	1	20	2.43 J	2.76 J	13 (1)	20
Batch number: 131150637001A	Sample number(s): 7026476-7026481 UNSPK: P031213 BKG: P031213								
Silver	96	98	75-125	2	20	0.0269 J	0.0419 J	44* (1)	20
Strontium	69*	75	75-125	3	20	12.7	13.0	2	20
Thallium	87	90	75-125	2	20	0.272	0.264	3 (1)	20
Batch number: 131150637001B	Sample number(s): 7026476-7026481 UNSPK: P031213 BKG: P031213								
Selenium	95	90	75-125	5	20	0.396 U	0.396 U	0 (1)	20
Batch number: 13108039401A	Sample number(s): 7026476-7026481 BKG: 7026477								
15a pH by 9045C						6.76	6.74	0	3
Batch number: 13115162401A	Sample number(s): 7026476-7026481 BKG: 7026477								
14a Moisture Content by 160.3						4.4	4.4	0	20

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 7a SVOC SIM EPA 8270D
Batch number: 13110SLE026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
7026476	91	108	98
7026477	99	116	107
7026478	96	107	105
7026479	99	111	106
7026480	92	110	103
7026481	97	111	102
Blank	91	108	101
LCS	96	115	106
MS	97	117	108
MSD	96	115	106
Limits:	54-129	61-134	55-129

Analysis Name: 11a TPH by EPA 8015B GRO
Batch number: 13108A16B

	Trifluorotoluene-F
7026476	87
Blank	87
LCS	86
LCSD	80

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1383780
Reported: 04/30/13 at 02:14 PM

Surrogate Quality Control

Limits: 61-122

Analysis Name: 11b TPH by EPA 8015B GRO
Batch number: 13108B20A

	Trifluorotoluene-F
7026475	88
Blank	88
LCS	114
LCSD	117

Limits: 63-135

Analysis Name: 19a PCBs and PCTs 8082A
Batch number: 131100011A

	Tetrachloro-m-xylene	Decachlorobiphenyl
7026476	129*	115
7026477	133*	108
7026478	116	101
7026479	113	108
7026480	111	110
7026481	113	109
Blank	129*	111
LCS	130*	120
LCSD	130*	122*
MS	122*	107
MSD	125*	108
Limits:	45-120	45-120

Analysis Name: 10a TPH by EPA 8015B (DRO)
Batch number: 131090007A

	Chlorobenzene	Orthoterphenyl
7026476	89	90
7026477	86	86
7026478	97	94
7026479	83	82
7026480	91	91
7026481	95	95
Blank	90	90
LCS	87	87
MS	88	86
MSD	83	82
Limits:	37-125	66-123

Analysis Name: 23a Dioxin/Furan by EPA 1613B
Batch number: 13109001

	13C12-2378-TCDD	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF	13C12-234678-HxCDF	13C12-123789-HxCDF
7026476	72	76	86	86	83	88
7026477	75	74	83	84	81	85
7026478	70	68	78	79	77	77

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1383780
Reported: 04/30/13 at 02:14 PM

Surrogate Quality Control

7026479	73	71	83	85	83	85
7026480	64	70	75	78	75	79
7026481	76	79	85	86	85	89
Blank	74	79	94	95	94	94
OPR	67	74	83	86	83	89
Limits:	25-164	21-178	26-152	26-123	28-136	29-147

	13C12-1234678-HpCDF	13C12-1234789-HpCDF	13C12-OCDF	13C12-12378-PeCDD	13C12-123478-HxCDD	13C12-123678-HxCDD
7026476	91	74	68	75	81	83
7026477	87	73	66	73	78	81
7026478	82	73	72	69	79	80
7026479	90	80	79	71	83	87
7026480	84	70	67	71	74	81
7026481	96	81	78	78	82	89
Blank	97	92	90	80	93	91
OPR	96	78	74	74	81	80
Limits:	28-143	26-138	17-157	25-181	32-141	28-130

	13C12-123789-HxCDD	13C12-1234678-HpCDD	13C12-OCDD	13C12-2378-TCDF	13C12-12378-PeCDF
7026476	80	77	75	70	76
7026477	82	76	73	72	76
7026478	79	76	80	68	70
7026479	87	81	81	70	70
7026480	79	74	73	63	70
7026481	86	82	79	75	78
Blank	91	90	88	69	77
OPR	81	81	80	63	73
Limits:	28-130	23-140	17-157	24-169	24-185

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

acct# 13013 Gp# 1383780 Sample# 7026475-81

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 4/17/2013
CarrierName: FedEx
AirbillNo: 7995 5263 5625

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20130417-01
Cooler #: 1
Lab: Lancaster
Lab Phone: 717-556-7259
Lab Address: 2425 New Holland Pike, Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Other Analysis/Notes
TB-041713	4/17/13 08:00	WQ	HCl	3 - 40 mL Vial	10 day																				X												
SL-558-SA7-SB-3.0-4.0	4/17/13 09:00	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-558-SA7-SB-3.0-4.0	4/17/13 09:00	SO	None	1 - 4 oz glass	10 day													X																			
SL-558-SA7-SB-3.0-4.0	4/17/13 09:00	SO	None	1 - Encore	10 day																				X												
SL-557-SA7-SB-0.0-0.5	4/17/13 09:40	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-557-SA7-SB-0.0-0.5	4/17/13 09:40	SO	None	1 - 4 oz glass	10 day													X																			
SL-505-SA7-SB-0.0-0.5	4/17/13 11:10	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-505-SA7-SB-0.0-0.5	4/17/13 11:10	SO	None	1 - 4 oz glass	10 day													X																			
SL-502-SA7-SB-0.0-0.5	4/17/13 13:25	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-502-SA7-SB-0.0-0.5	4/17/13 13:25	SO	None	1 - 4 oz glass	10 day													X																			
SL-501-SA7-SB-0.0-0.5	4/17/13 14:00	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-501-SA7-SB-0.0-0.5	4/17/13 14:00	SO	None	1 - 4 oz glass	10 day													X																			
SL-500-SA7-SB-0.0-0.5	4/17/13 14:45	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-500-SA7-SB-0.0-0.5	4/17/13 14:45	SO	None	1 - 4 oz glass	10 day													X																			

Special Instructions:

Sampler: Steven Mercer

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
V.Gh	4/17/13								CEsler LI	4/18/13	0915

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C#1383780

Environmental Sample Administration Receipt Documentation Log

Client/Project: CDM Smith

Date of Receipt: 4/18/13

Time of Receipt: 0915

Source Code: 50-1

Shipping Container Sealed: YES NO

Custody Seal Present * : YES NO

* Custody seal was intact unless otherwise noted in the discrepancy section

Package: Chilled Not Chilled

Temperature of Shipping Containers							
Cooler #	Thermometer ID	Temperature (°C)	Temp Bottle (TB) or Surface Temp (ST)	Wet Ice (WI) or Dry Ice (DI) or Ice Packs (IP)	Ice Present? Y/N	Loose (L) Bagged Ice (B) or NA	Comments
1	DT121	1.7	TB	WI	Y	B	
2							
3							
4							
5							
6							

Number of Trip Blanks received NOT listed on chain of custody: Ø

Paperwork Discrepancy/Unpacking Problems:

Unpacker Signature/Emp#: CEsler 3647 **Date/Time:** 4/18/13 1050

Issued by Dept. 6042 Management

2174.06

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	**BMQL**	Below Minimum Quantitation Level
N.D.	none detected	**MPN**	Most Probable Number
TNTC	Too Numerous To Count	**CP Units**	cobalt-chloroplatinate units
IU	International Units	**NTU**	nephelometric turbidity units
umhos/cm	micromhos/cm	**ng**	nanogram(s)
C	degrees Celsius	**F**	degrees Fahrenheit
meq	milliequivalents	**lb.**	pound(s)
g	gram(s)	**kg**	kilogram(s)
µg	microgram(s)	**mg**	milligram(s)
mL	milliliter(s)	**L**	liter(s)
m3	cubic meter(s)	**µL**	microliter(s)
		pg/L	picogram/liter

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

J estimated value – The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	**B**	Value is <CRDL, but ≥IDL
B	Analyte was also detected in the blank	**E**	Estimated due to interference
C	Pesticide result confirmed by GC/MS	**M**	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	**N**	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	**S**	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	**U**	Compound was not detected
P	Concentration difference between primary and confirmation columns >25%	**W**	Post digestion spike out of control limits
U	Compound was not detected	*****	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	**+**	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as “analyze immediately” are not performed within 15 minutes.

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Analysis Report

ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

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

May 01, 2013

Project: Phase 3 Subarea 7

Submittal Date: 04/19/2013
Group Number: 1384244
SDG: PH034
PO Number: 1204-002-001-AL
State of Sample Origin: CA

Client Sample Description	Lancaster Labs (LLI) #
SL-531-SA7-SB-0.0-0.5 Soil	7028427
SL-532-SA7-SB-0.0-0.5 Soil	7028428
SL-533-SA7-SB-0.0-0.5 Soil	7028429
SL-530-SA7-SB-0.0-0.5 Soil	7028430
EB-041813 Water	7028431

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

ELECTRONIC COPY TO	LLI	Attn: Nicole Maljovec
ELECTRONIC COPY TO	Eurofins Lancaster Labs	Attn: Natalie Luciano

Respectfully Submitted,

Nicole L. Maljovec
Principal Specialist Group Leader

(717) 556-7259

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Analysis Report

Sample Description: SL-531-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7028427
LLI Group # 1384244
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/18/2013 08:55 by SM

Submitted: 04/19/2013 09:35
Reported: 05/01/2013 09:02

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

SL531 SDG#: PH034-01

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.68	1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.34	1
12969	Anthracene	120-12-7	1.7	U	1.7	0.34	1
12969	Benzo(a)anthracene	56-55-3	1.7	U	1.7	0.68	1
12969	Benzo(a)pyrene	50-32-8	1.7	U	1.7	0.68	1
12969	Benzo(b)fluoranthene	205-99-2	1.4	J	1.7	0.68	1
12969	Benzo(e)pyrene	192-97-2	17	U	17	3.4	1
12969	Benzo(g,h,i)perylene	191-24-2	0.86	J	1.7	0.68	1
12969	Benzo(k)fluoranthene	207-08-9	4.4		1.7	0.68	1
12969	Butylbenzylphthalate	85-68-7	18	U	18	6.1	1
12969	Di-n-butylphthalate	84-74-2	18	U	18	6.1	1
12969	Chrysene	218-01-9	1.4	J	1.7	0.34	1
12969	Dibenz(a,h)anthracene	53-70-3	1.7	U	1.7	0.68	1
12969	Diethylphthalate	84-66-2	18	U	18	6.1	1
12969	Dimethylphthalate	131-11-3	18	U	18	6.1	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	18	U	18	6.1	1
12969	Fluoranthene	206-44-0	1.5	J	1.7	0.68	1
12969	Fluorene	86-73-7	1.7	U	1.7	0.68	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	0.86	J	1.7	0.68	1
12969	1-Methylnaphthalene	90-12-0	0.90	J	1.7	0.68	1
12969	2-Methylnaphthalene	91-57-6	0.87	J	1.7	0.68	1
12969	Naphthalene	91-20-3	1.1	J	1.7	0.68	1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.68	1
12969	Di-n-octylphthalate	117-84-0	18	U	18	6.1	1
12969	Phenanthrene	85-01-8	1.3	J	1.7	0.68	1
12969	Pyrene	129-00-0	1.4	J	1.7	0.68	1
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
10592	Aroclor 5432	63496-31-1	34	U	34	10	1
10592	Aroclor 5442	12642-23-8	34	U	34	10	1
10592	Aroclor 5460	11126-42-4	34	U	34	10	1
10592	PCB-1016	12674-11-2	17	U	17	3.4	1
10592	PCB-1221	11104-28-2	17	U	17	5.2	1
10592	PCB-1232	11141-16-5	17	U	17	4.2	1
10592	PCB-1242	53469-21-9	17	U	17	3.4	1
10592	PCB-1248	12672-29-6	17	U	17	3.4	1
10592	PCB-1254	11097-69-1	17	U	17	4.5	1
10592	PCB-1260	11096-82-5	17	U	17	4.0	1
10592	PCB-1262	37324-23-5	17	U	17	3.4	1
10592	PCB-1268	11100-14-4	17	U	17	3.4	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.1	U	5.1	2.0	1
12952	EFH (C15-C20)	n.a.	4.9	J	5.1	2.0	1
12952	EFH (C21-C30)	n.a.	25		5.1	2.0	1
12952	EFH (C30-C40)	n.a.	84		10	4.1	1
12952	EFH (C8-C11)	n.a.	5.1	U	5.1	2.0	1

The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.

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

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Analysis Report

Sample Description: SL-531-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7028427
LLI Group # 1384244
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/18/2013 08:55 by SM

Submitted: 04/19/2013 09:35
Reported: 05/01/2013 09:02

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

SL531 SDG#: PH034-01

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	10,600		39.7	7.65	1
06944	Antimony	7440-36-0	3.97	U	3.97	0.496	1
06935	Arsenic	7440-38-2	3.82	J	3.97	0.328	1
06946	Barium	7440-39-3	77.7		0.993	0.0328	1
06947	Beryllium	7440-41-7	0.463	J	0.993	0.0665	1
07914	Boron	7440-42-8	2.91	J	9.93	0.824	1
06949	Cadmium	7440-43-9	0.139	J	0.993	0.0328	1
01650	Calcium	7440-70-2	2,780		19.9	3.99	1
06951	Chromium	7440-47-3	15.8		2.98	0.0874	1
06952	Cobalt	7440-48-4	4.57		0.993	0.0893	1
06953	Copper	7440-50-8	10.7		1.99	0.179	1
01654	Iron	7439-89-6	18,900		39.7	3.77	1
06955	Lead	7439-92-1	7.89		2.98	0.467	1
01656	Lithium	7439-93-2	24.1		4.0	0.55	1
01657	Magnesium	7439-95-4	4,700		9.93	1.72	1
06958	Manganese	7439-96-5	285		0.993	0.0824	1
06960	Molybdenum	7439-98-7	1.99	U	1.99	0.169	1
06961	Nickel	7440-02-0	8.18		1.99	0.109	1
10145	Phosphorus	7723-14-0	445		9.93	0.506	1
01662	Potassium	7440-09-7	4,180		99.3	13.4	1
01667	Sodium	7440-23-5	56.5	J	99.3	16.6	1
06969	Tin	7440-31-5	2.97	J	9.93	0.218	1
06970	Titanium	7440-32-6	1,070		0.993	0.169	1
06971	Vanadium	7440-62-2	30.9		0.993	0.109	1
06972	Zinc	7440-66-6	57.9		3.97	0.199	1
10146	Zirconium	7440-67-7	1.97	J	4.96	0.824	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.397	U	0.397	0.0993	2
06142	Silver	7440-22-4	0.199	U	0.199	0.0199	2
06144	Strontium	7440-24-6	9.97		0.397	0.0338	2
06145	Thallium	7440-28-0	0.198	J	0.199	0.0298	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0171	J	0.0204	0.0106	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045C	n.a.	6.85		0.0100	0.0100	1
	The pH was measured in water at 22.4 C.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	2.2		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

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

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Analysis Report

Sample Description: SL-531-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7028427
LLI Group # 1384244
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/18/2013 08:55 by SM

Submitted: 04/19/2013 09:35
Reported: 05/01/2013 09:02

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

SL531 SDG#: PH034-01

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	1.00	U	1.00	0.0217	1
11031	12378-PeCDD	40321-76-4	0.173	JB	5.01	0.0225	1
11031	123478-HxCDD	39227-28-6	0.183	JB	5.01	0.0309	1
11031	123678-HxCDD	57653-85-7	0.391	J	5.01	0.0307	1
11031	123789-HxCDD	19408-74-3	0.482	JBQ	5.01	0.0284	1
11031	1234678-HpCDD	35822-46-9	7.64	B	5.01	0.0237	1
11031	OCDD	3268-87-9	78.8	B	10.0	0.0198	1
11031	2378-TCDF	51207-31-9	0.136	J	1.00	0.0330	1
11031	12378-PeCDF	57117-41-6	0.175	JB	5.01	0.0173	1
11031	23478-PeCDF	57117-31-4	0.272	JB	5.01	0.0162	1
11031	123478-HxCDF	70648-26-9	0.151	JBQ	5.01	0.0193	1
11031	123678-HxCDF	57117-44-9	0.117	JBQ	5.01	0.0183	1
11031	123789-HxCDF	72918-21-9	0.0578	JBQ	5.01	0.0208	1
11031	234678-HxCDF	60851-34-5	0.124	JB	5.01	0.0183	1
11031	1234678-HpCDF	67562-39-4	0.909	JB	5.01	0.0129	1
11031	1234789-HpCDF	55673-89-7	0.0981	JBQ	5.01	0.0165	1
11031	OCDF	39001-02-0	1.92	JB	10.0	0.0201	1
Toxic Equivalents	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.453				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	73	25 - 164
13C12-12378-PeCDD	76	25 - 181
13C12-123478-HxCDD	81	32 - 141
13C12-123678-HxCDD	84	28 - 130
13C12-123789-HxCDD	84	28 - 130
13C12-1234678-HpCDD	81	23 - 140
13C12-OCDD	79	17 - 157
13C12-2378-TCDF	67	24 - 169
13C12-12378-PeCDF	70	24 - 185
13C12-23478-PeCDF	71	21 - 178
13C12-123478-HxCDF	81	26 - 152
13C12-123678-HxCDF	83	26 - 123
13C12-234678-HxCDF	80	28 - 136
13C12-123789-HxCDF	78	29 - 147
13C12-1234678-HpCDF	86	28 - 143
13C12-1234789-HpCDF	74	26 - 138
13C12-OCDF	72	17 - 157

Dioxins/Furans Data Qualifiers:

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

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

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Analysis Report

Sample Description: SL-531-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7028427
LLI Group # 1384244
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/18/2013 08:55 by SM

Submitted: 04/19/2013 09:35
Reported: 05/01/2013 09:02

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

SL531 SDG#: PH034-01

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

F *Interference is present*
S *Saturation of detection signal*

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

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Analysis Report

Sample Description: SL-531-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7028427
LLI Group # 1384244
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/18/2013 08:55 by SM

Submitted: 04/19/2013 09:35
Reported: 05/01/2013 09:02

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

SL531 SDG#: PH034-01

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13110SLE026	04/30/2013 07:13	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	13110SLE026	04/22/2013 02:00	Sherry L Morrow	1
10592	19a PCBs and PCTs 8082A	SW-846 8082A	1	131130012A	04/27/2013 00:34	Monica M Souders	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	131130012A	04/23/2013 18:00	Sally L Appleyard	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	131140009A	04/26/2013 11:34	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	131140009A	04/25/2013 02:00	Sherry L Morrow	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13114001	04/25/2013 20:57	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13114001	04/24/2013 13:30	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010C	1	131150637001	04/28/2013 19:22	Tara L Snyder	1
06944	Antimony	SW-846 6010C	1	131150637001	04/28/2013 19:22	Tara L Snyder	1
06935	Arsenic	SW-846 6010C	1	131150637001	04/28/2013 19:22	Tara L Snyder	1
06946	Barium	SW-846 6010C	1	131150637001	04/28/2013 19:22	Tara L Snyder	1
06947	Beryllium	SW-846 6010C	1	131150637001	04/28/2013 19:22	Tara L Snyder	1
07914	Boron	SW-846 6010C	1	131150637001	04/28/2013 19:22	Tara L Snyder	1
06949	Cadmium	SW-846 6010C	1	131150637001	04/28/2013 19:22	Tara L Snyder	1
01650	Calcium	SW-846 6010C	1	131150637001	04/28/2013 19:22	Tara L Snyder	1
06951	Chromium	SW-846 6010C	1	131150637001	04/28/2013 19:22	Tara L Snyder	1
06952	Cobalt	SW-846 6010C	1	131150637001	04/28/2013 19:22	Tara L Snyder	1
06953	Copper	SW-846 6010C	1	131150637001	04/28/2013 19:22	Tara L Snyder	1
01654	Iron	SW-846 6010C	1	131150637001	04/28/2013 19:22	Tara L Snyder	1
06955	Lead	SW-846 6010C	1	131150637001	04/28/2013 19:22	Tara L Snyder	1
01656	Lithium	SW-846 6010C	1	131150637001	04/28/2013 19:22	Tara L Snyder	1
01657	Magnesium	SW-846 6010C	1	131150637001	04/28/2013 19:22	Tara L Snyder	1
06958	Manganese	SW-846 6010C	1	131150637001	04/28/2013 19:22	Tara L Snyder	1
06960	Molybdenum	SW-846 6010C	1	131150637001	04/28/2013 19:22	Tara L Snyder	1
06961	Nickel	SW-846 6010C	1	131150637001	04/28/2013 19:22	Tara L Snyder	1
10145	Phosphorus	SW-846 6010C	1	131150637001	04/28/2013 19:22	Tara L Snyder	1
01662	Potassium	SW-846 6010C	1	131150637001	04/28/2013 19:22	Tara L Snyder	1
01667	Sodium	SW-846 6010C	1	131150637001	04/28/2013 19:22	Tara L Snyder	1
06969	Tin	SW-846 6010C	1	131150637001	04/28/2013 19:22	Tara L Snyder	1
06970	Titanium	SW-846 6010C	1	131150637001	04/28/2013 19:22	Tara L Snyder	1
06971	Vanadium	SW-846 6010C	1	131150637001	04/28/2013 19:22	Tara L Snyder	1
06972	Zinc	SW-846 6010C	1	131150637001	04/28/2013 19:22	Tara L Snyder	1
10146	Zirconium	SW-846 6010C	1	131150637001	04/28/2013 19:22	Tara L Snyder	1
06141	Selenium	SW-846 6020A	1	131150637001B	04/29/2013 09:01	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	131150637001A	04/29/2013 09:01	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	131150637001A	04/29/2013 09:01	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	131150637001A	04/29/2013 09:01	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-531-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7028427
LLI Group # 1384244
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/18/2013 08:55 by SM

Submitted: 04/19/2013 09:35
Reported: 05/01/2013 09:02

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL531 SDG#: PH034-01

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00159	3a Mercury 7471A	SW-846 7471B	1	131090638001	04/23/2013 07:32	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	131150637001	04/25/2013 22:32	Annamaria Stipkovits	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	131090638001	04/23/2013 01:45	Annamaria Stipkovits	1
00394	15a pH by 9045C	SW-846 9045D modified	1	13109039403A	04/19/2013 20:30	Michelle L Lalli	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13115162401A	04/25/2013 19:23	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-532-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7028428
LLI Group # 1384244
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/18/2013 09:45 by SM

Submitted: 04/19/2013 09:35
Reported: 05/01/2013 09:02

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL532 SDG#: PH034-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.68	1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.34	1
12969	Anthracene	120-12-7	0.40	J	1.7	0.34	1
12969	Benzo(a)anthracene	56-55-3	1.7	U	1.7	0.68	1
12969	Benzo(a)pyrene	50-32-8	1.7	U	1.7	0.68	1
12969	Benzo(b)fluoranthene	205-99-2	1.7	U	1.7	0.68	1
12969	Benzo(e)pyrene	192-97-2	17	U	17	3.4	1
12969	Benzo(g,h,i)perylene	191-24-2	1.7	U	1.7	0.68	1
12969	Benzo(k)fluoranthene	207-08-9	1.7	U	1.7	0.68	1
12969	Butylbenzylphthalate	85-68-7	18	U	18	6.1	1
12969	Di-n-butylphthalate	84-74-2	18	U	18	6.1	1
12969	Chrysene	218-01-9	0.61	J	1.7	0.34	1
12969	Dibenz(a,h)anthracene	53-70-3	1.7	U	1.7	0.68	1
12969	Diethylphthalate	84-66-2	18	U	18	6.1	1
12969	Dimethylphthalate	131-11-3	18	U	18	6.1	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	18	U	18	6.1	1
12969	Fluoranthene	206-44-0	0.96	J	1.7	0.68	1
12969	Fluorene	86-73-7	1.7	U	1.7	0.68	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.7	U	1.7	0.68	1
12969	1-Methylnaphthalene	90-12-0	1.7	U	1.7	0.68	1
12969	2-Methylnaphthalene	91-57-6	1.7	U	1.7	0.68	1
12969	Naphthalene	91-20-3	0.92	J	1.7	0.68	1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.68	1
12969	Di-n-octylphthalate	117-84-0	18	U	18	6.1	1
12969	Phenanthrene	85-01-8	1.5	J	1.7	0.68	1
12969	Pyrene	129-00-0	0.80	J	1.7	0.68	1
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
10592	Aroclor 5432	63496-31-1	34	U	34	10	1
10592	Aroclor 5442	12642-23-8	34	U	34	10	1
10592	Aroclor 5460	11126-42-4	34	U	34	10	1
10592	PCB-1016	12674-11-2	17	U	17	3.4	1
10592	PCB-1221	11104-28-2	17	U	17	5.2	1
10592	PCB-1232	11141-16-5	17	U	17	4.2	1
10592	PCB-1242	53469-21-9	17	U	17	3.4	1
10592	PCB-1248	12672-29-6	17	U	17	3.4	1
10592	PCB-1254	11097-69-1	17	U	17	4.5	1
10592	PCB-1260	11096-82-5	17	U	17	4.0	1
10592	PCB-1262	37324-23-5	17	U	17	3.4	1
10592	PCB-1268	11100-14-4	17	U	17	3.4	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.1	U	5.1	2.0	1
12952	EFH (C15-C20)	n.a.	5.1	U	5.1	2.0	1
12952	EFH (C21-C30)	n.a.	14		5.1	2.0	1
12952	EFH (C30-C40)	n.a.	40		10	4.1	1
12952	EFH (C8-C11)	n.a.	5.1	U	5.1	2.0	1

The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-532-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7028428
LLI Group # 1384244
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/18/2013 09:45 by SM

Submitted: 04/19/2013 09:35
Reported: 05/01/2013 09:02

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL532 SDG#: PH034-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	9,440		39.9	7.70	1
06944	Antimony	7440-36-0	3.99	U	3.99	0.499	1
06935	Arsenic	7440-38-2	3.93	J	3.99	0.329	1
06946	Barium	7440-39-3	69.2		0.998	0.0329	1
06947	Beryllium	7440-41-7	0.382	J	0.998	0.0669	1
07914	Boron	7440-42-8	1.98	J	9.98	0.829	1
06949	Cadmium	7440-43-9	0.106	J	0.998	0.0329	1
01650	Calcium	7440-70-2	3,900		20.0	4.01	1
06951	Chromium	7440-47-3	13.1		3.00	0.0879	1
06952	Cobalt	7440-48-4	3.67		0.998	0.0899	1
06953	Copper	7440-50-8	8.85		2.00	0.180	1
01654	Iron	7439-89-6	19,000		39.9	3.79	1
06955	Lead	7439-92-1	5.40		3.00	0.469	1
01656	Lithium	7439-93-2	26.7		4.0	0.55	1
01657	Magnesium	7439-95-4	4,230		9.98	1.73	1
06958	Manganese	7439-96-5	269		0.998	0.0829	1
06960	Molybdenum	7439-98-7	2.00	U	2.00	0.170	1
06961	Nickel	7440-02-0	6.94		2.00	0.110	1
10145	Phosphorus	7723-14-0	370		9.98	0.509	1
01662	Potassium	7440-09-7	3,290		99.8	13.5	1
01667	Sodium	7440-23-5	53.0	J	99.8	16.7	1
06969	Tin	7440-31-5	3.04	J	9.98	0.220	1
06970	Titanium	7440-32-6	1,030		0.998	0.170	1
06971	Vanadium	7440-62-2	26.8		0.998	0.110	1
06972	Zinc	7440-66-6	57.0		3.99	0.200	1
10146	Zirconium	7440-67-7	1.58	J	4.99	0.829	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.399	U	0.399	0.0998	2
06142	Silver	7440-22-4	0.200	U	0.200	0.0200	2
06144	Strontium	7440-24-6	9.47		0.399	0.0339	2
06145	Thallium	7440-28-0	0.206		0.200	0.0300	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0144	J	0.0193	0.010	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045C	n.a.	7.11		0.0100	0.0100	1
	The pH was measured in water at 22.4 C.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	1.8		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-532-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7028428
LLI Group # 1384244
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/18/2013 09:45 by SM

Submitted: 04/19/2013 09:35
Reported: 05/01/2013 09:02

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL532 SDG#: PH034-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		**ng/kg**	**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	0.991 U	0.991	0.0196	1
11031	12378-PeCDD	40321-76-4	0.0570 JBQ	4.95	0.0176	1
11031	123478-HxCDD	39227-28-6	0.0857 JBQ	4.95	0.0230	1
11031	123678-HxCDD	57653-85-7	0.134 J	4.95	0.0224	1
11031	123789-HxCDD	19408-74-3	0.123 JB	4.95	0.0208	1
11031	1234678-HpCDD	35822-46-9	2.58 JB	4.95	0.0188	1
11031	OCDD	3268-87-9	21.3 B	9.91	0.0167	1
11031	2378-TCDF	51207-31-9	0.0663 JQ	0.991	0.0278	1
11031	12378-PeCDF	57117-41-6	0.159 JB	4.95	0.0157	1
11031	23478-PeCDF	57117-31-4	0.172 JB	4.95	0.0154	1
11031	123478-HxCDF	70648-26-9	0.0810 JBQ	4.95	0.0194	1
11031	123678-HxCDF	57117-44-9	0.0933 JBQ	4.95	0.0177	1
11031	123789-HxCDF	72918-21-9	0.0403 JBQ	4.95	0.0189	1
11031	234678-HxCDF	60851-34-5	0.0854 JBQ	4.95	0.0173	1
11031	1234678-HpCDF	67562-39-4	0.513 JB	4.95	0.0104	1
11031	1234789-HpCDF	55673-89-7	0.0834 JB	4.95	0.0148	1
11031	OCDF	39001-02-0	0.858 JB	9.91	0.0216	1
Toxic Equivalents	**EPA 1613B**		**ng/kg**	**ng/kg**	**ng/kg**	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.121			1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	75	25 - 164
13C12-12378-PeCDD	76	25 - 181
13C12-123478-HxCDD	82	32 - 141
13C12-123678-HxCDD	85	28 - 130
13C12-123789-HxCDD	87	28 - 130
13C12-1234678-HpCDD	81	23 - 140
13C12-OCDD	77	17 - 157
13C12-2378-TCDF	68	24 - 169
13C12-12378-PeCDF	73	24 - 185
13C12-23478-PeCDF	71	21 - 178
13C12-123478-HxCDF	76	26 - 152
13C12-123678-HxCDF	81	26 - 123
13C12-234678-HxCDF	78	28 - 136
13C12-123789-HxCDF	78	29 - 147
13C12-1234678-HpCDF	94	28 - 143
13C12-1234789-HpCDF	71	26 - 138
13C12-OCDF	68	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration

*=This limit was used in the evaluation of the final result

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Analysis Report

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Sample Description: SL-532-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7028428
LLI Group # 1384244
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/18/2013 09:45 by SM

Submitted: 04/19/2013 09:35
Reported: 05/01/2013 09:02

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL532 SDG#: PH034-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-532-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7028428
LLI Group # 1384244
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/18/2013 09:45 by SM

Submitted: 04/19/2013 09:35
Reported: 05/01/2013 09:02

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL532 SDG#: PH034-02

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13110SLE026	04/30/2013	07:44	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	13110SLE026	04/22/2013	02:00	Sherry L Morrow	1
10592	19a PCBs and PCTs 8082A	SW-846 8082A	1	131130012A	04/27/2013	00:52	Monica M Souders	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	131130012A	04/23/2013	18:00	Sally L Appleyard	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	131140009A	04/26/2013	05:21	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	131140009A	04/25/2013	02:00	Sherry L Morrow	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13114001	04/25/2013	21:54	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13114001	04/24/2013	13:30	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010C	1	131150637001	04/28/2013	19:26	Tara L Snyder	1
06944	Antimony	SW-846 6010C	1	131150637001	04/28/2013	19:26	Tara L Snyder	1
06935	Arsenic	SW-846 6010C	1	131150637001	04/28/2013	19:26	Tara L Snyder	1
06946	Barium	SW-846 6010C	1	131150637001	04/28/2013	19:26	Tara L Snyder	1
06947	Beryllium	SW-846 6010C	1	131150637001	04/28/2013	19:26	Tara L Snyder	1
07914	Boron	SW-846 6010C	1	131150637001	04/28/2013	19:26	Tara L Snyder	1
06949	Cadmium	SW-846 6010C	1	131150637001	04/28/2013	19:26	Tara L Snyder	1
01650	Calcium	SW-846 6010C	1	131150637001	04/28/2013	19:26	Tara L Snyder	1
06951	Chromium	SW-846 6010C	1	131150637001	04/28/2013	19:26	Tara L Snyder	1
06952	Cobalt	SW-846 6010C	1	131150637001	04/28/2013	19:26	Tara L Snyder	1
06953	Copper	SW-846 6010C	1	131150637001	04/28/2013	19:26	Tara L Snyder	1
01654	Iron	SW-846 6010C	1	131150637001	04/28/2013	19:26	Tara L Snyder	1
06955	Lead	SW-846 6010C	1	131150637001	04/28/2013	19:26	Tara L Snyder	1
01656	Lithium	SW-846 6010C	1	131150637001	04/28/2013	19:26	Tara L Snyder	1
01657	Magnesium	SW-846 6010C	1	131150637001	04/28/2013	19:26	Tara L Snyder	1
06958	Manganese	SW-846 6010C	1	131150637001	04/28/2013	19:26	Tara L Snyder	1
06960	Molybdenum	SW-846 6010C	1	131150637001	04/28/2013	19:26	Tara L Snyder	1
06961	Nickel	SW-846 6010C	1	131150637001	04/28/2013	19:26	Tara L Snyder	1
10145	Phosphorus	SW-846 6010C	1	131150637001	04/28/2013	19:26	Tara L Snyder	1
01662	Potassium	SW-846 6010C	1	131150637001	04/28/2013	19:26	Tara L Snyder	1
01667	Sodium	SW-846 6010C	1	131150637001	04/28/2013	19:26	Tara L Snyder	1
06969	Tin	SW-846 6010C	1	131150637001	04/28/2013	19:26	Tara L Snyder	1
06970	Titanium	SW-846 6010C	1	131150637001	04/28/2013	19:26	Tara L Snyder	1
06971	Vanadium	SW-846 6010C	1	131150637001	04/28/2013	19:26	Tara L Snyder	1
06972	Zinc	SW-846 6010C	1	131150637001	04/28/2013	19:26	Tara L Snyder	1
10146	Zirconium	SW-846 6010C	1	131150637001	04/28/2013	19:26	Tara L Snyder	1
06141	Selenium	SW-846 6020A	1	131150637001B	04/29/2013	09:04	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	131150637001A	04/29/2013	09:04	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	131150637001A	04/29/2013	09:04	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	131150637001A	04/29/2013	09:04	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-532-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7028428
LLI Group # 1384244
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/18/2013 09:45 by SM

Submitted: 04/19/2013 09:35
Reported: 05/01/2013 09:02

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL532 SDG#: PH034-02

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00159	3a Mercury 7471A	SW-846 7471B	1	131090638001	04/23/2013 07:34	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	131150637001	04/25/2013 22:32	Annamaria Stipkovits	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	131090638001	04/23/2013 01:45	Annamaria Stipkovits	1
00394	15a pH by 9045C	SW-846 9045D modified	1	13109039403A	04/19/2013 20:30	Michelle L Lalli	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13115162401A	04/25/2013 19:23	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-533-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7028429
LLI Group # 1384244
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/18/2013 11:25 by SM

Submitted: 04/19/2013 09:35
Reported: 05/01/2013 09:02

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL533 SDG#: PH034-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.69	1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.34	1
12969	Anthracene	120-12-7	1.7	U	1.7	0.34	1
12969	Benzo(a)anthracene	56-55-3	1.7	U	1.7	0.69	1
12969	Benzo(a)pyrene	50-32-8	1.0	J	1.7	0.69	1
12969	Benzo(b)fluoranthene	205-99-2	1.9		1.7	0.69	1
12969	Benzo(e)pyrene	192-97-2	18	U	18	3.4	1
12969	Benzo(g,h,i)perylene	191-24-2	0.82	J	1.7	0.69	1
12969	Benzo(k)fluoranthene	207-08-9	8.7		1.7	0.69	1
12969	Butylbenzylphthalate	85-68-7	12	J	19	6.2	1
12969	Di-n-butylphthalate	84-74-2	19	U	19	6.2	1
12969	Chrysene	218-01-9	1.6	J	1.7	0.34	1
12969	Dibenz(a,h)anthracene	53-70-3	1.7	U	1.7	0.69	1
12969	Diethylphthalate	84-66-2	19	U	19	6.2	1
12969	Dimethylphthalate	131-11-3	19	U	19	6.2	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	6.5	J	19	6.2	1
12969	Fluoranthene	206-44-0	1.8		1.7	0.69	1
12969	Fluorene	86-73-7	0.86	J	1.7	0.69	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	0.77	J	1.7	0.69	1
12969	1-Methylnaphthalene	90-12-0	1.7	U	1.7	0.69	1
12969	2-Methylnaphthalene	91-57-6	0.86	J	1.7	0.69	1
12969	Naphthalene	91-20-3	1.1	J	1.7	0.69	1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.69	1
12969	Di-n-octylphthalate	117-84-0	19	U	19	6.2	1
12969	Phenanthrene	85-01-8	0.95	J	1.7	0.69	1
12969	Pyrene	129-00-0	1.5	J	1.7	0.69	1
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
10592	Aroclor 5432	63496-31-1	34	U	34	10	1
10592	Aroclor 5442	12642-23-8	34	U	34	10	1
10592	Aroclor 5460	11126-42-4	34	U	34	10	1
10592	PCB-1016	12674-11-2	18	U	18	3.4	1
10592	PCB-1221	11104-28-2	18	U	18	5.3	1
10592	PCB-1232	11141-16-5	18	U	18	4.3	1
10592	PCB-1242	53469-21-9	18	U	18	3.4	1
10592	PCB-1248	12672-29-6	18	U	18	3.4	1
10592	PCB-1254	11097-69-1	18	U	18	4.6	1
10592	PCB-1260	11096-82-5	18	U	18	4.0	1
10592	PCB-1262	37324-23-5	18	U	18	3.4	1
10592	PCB-1268	11100-14-4	18	U	18	3.4	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.2	U	5.2	2.1	1
12952	EFH (C15-C20)	n.a.	5.2	U	5.2	2.1	1
12952	EFH (C21-C30)	n.a.	9.7		5.2	2.1	1
12952	EFH (C30-C40)	n.a.	26		10	4.1	1
12952	EFH (C8-C11)	n.a.	5.2	U	5.2	2.1	1

The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-533-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7028429
LLI Group # 1384244
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/18/2013 11:25 by SM

Submitted: 04/19/2013 09:35
Reported: 05/01/2013 09:02

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL533 SDG#: PH034-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	17,200		39.9	7.69	1
06944	Antimony	7440-36-0	0.770	J	3.99	0.499	1
06935	Arsenic	7440-38-2	4.95		3.99	0.329	1
06946	Barium	7440-39-3	95.3		0.997	0.0329	1
06947	Beryllium	7440-41-7	0.669	J	0.997	0.0668	1
07914	Boron	7440-42-8	2.64	J	9.97	0.828	1
06949	Cadmium	7440-43-9	0.0439	J	0.997	0.0329	1
01650	Calcium	7440-70-2	3,660		19.9	4.01	1
06951	Chromium	7440-47-3	25.7		2.99	0.0878	1
06952	Cobalt	7440-48-4	6.38		0.997	0.0898	1
06953	Copper	7440-50-8	16.4		1.99	0.180	1
01654	Iron	7439-89-6	23,100		79.8	7.58	2
06955	Lead	7439-92-1	10.2		2.99	0.469	1
01656	Lithium	7439-93-2	26.5		4.0	0.55	1
01657	Magnesium	7439-95-4	5,680		9.97	1.73	1
06958	Manganese	7439-96-5	382		0.997	0.0828	1
06960	Molybdenum	7439-98-7	0.423	J	1.99	0.170	1
06961	Nickel	7440-02-0	14.8		1.99	0.110	1
10145	Phosphorus	7723-14-0	375		9.97	0.509	1
01662	Potassium	7440-09-7	3,860		99.7	13.5	1
01667	Sodium	7440-23-5	63.6	J	99.7	16.7	1
06969	Tin	7440-31-5	3.36	J	9.97	0.219	1
06970	Titanium	7440-32-6	1,340		0.997	0.170	1
06971	Vanadium	7440-62-2	49.1		0.997	0.110	1
06972	Zinc	7440-66-6	60.9		3.99	0.199	1
10146	Zirconium	7440-67-7	3.18	J	4.99	0.828	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.231	J	0.399	0.0997	2
06142	Silver	7440-22-4	0.0368	J	0.199	0.0199	2
06144	Strontium	7440-24-6	19.7		0.399	0.0339	2
06145	Thallium	7440-28-0	0.271		0.199	0.0299	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0282		0.0199	0.0103	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045C	n.a.	6.99		0.0100	0.0100	1
	The pH was measured in water at 22.3 C.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	3.6		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-533-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7028429
LLI Group # 1384244
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/18/2013 11:25 by SM

Submitted: 04/19/2013 09:35
Reported: 05/01/2013 09:02

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL533 SDG#: PH034-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0326	JQ	1.04	0.0236	1
11031	12378-PeCDD	40321-76-4	0.107	JB	5.19	0.0221	1
11031	123478-HxCDD	39227-28-6	0.128	JB	5.19	0.0289	1
11031	123678-HxCDD	57653-85-7	0.344	J	5.19	0.0290	1
11031	123789-HxCDD	19408-74-3	0.298	JB	5.19	0.0276	1
11031	1234678-HpCDD	35822-46-9	5.92	B	5.19	0.0250	1
11031	OCDD	3268-87-9	66.2	B	10.4	0.0214	1
11031	2378-TCDF	51207-31-9	0.0789	JQ	1.04	0.0351	1
11031	12378-PeCDF	57117-41-6	0.158	JBQ	5.19	0.0188	1
11031	23478-PeCDF	57117-31-4	0.224	JB	5.19	0.0182	1
11031	123478-HxCDF	70648-26-9	0.130	JB	5.19	0.0207	1
11031	123678-HxCDF	57117-44-9	0.0771	JBQ	5.19	0.0193	1
11031	123789-HxCDF	72918-21-9	0.0392	JBQ	5.19	0.0233	1
11031	234678-HxCDF	60851-34-5	0.128	JB	5.19	0.0203	1
11031	1234678-HpCDF	67562-39-4	0.909	JB	5.19	0.0167	1
11031	1234789-HpCDF	55673-89-7	0.122	JBQ	5.19	0.0224	1
11031	OCDF	39001-02-0	2.02	JB	10.4	0.0237	1
Toxic Equivalents	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.366				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	69	25 - 164
13C12-12378-PeCDD	72	25 - 181
13C12-123478-HxCDD	77	32 - 141
13C12-123678-HxCDD	80	28 - 130
13C12-123789-HxCDD	80	28 - 130
13C12-1234678-HpCDD	76	23 - 140
13C12-OCDD	74	17 - 157
13C12-2378-TCDF	62	24 - 169
13C12-12378-PeCDF	69	24 - 185
13C12-23478-PeCDF	68	21 - 178
13C12-123478-HxCDF	75	26 - 152
13C12-123678-HxCDF	79	26 - 123
13C12-234678-HxCDF	75	28 - 136
13C12-123789-HxCDF	75	29 - 147
13C12-1234678-HpCDF	84	28 - 143
13C12-1234789-HpCDF	69	26 - 138
13C12-OCDF	68	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration

*=This limit was used in the evaluation of the final result

Sample Description: SL-533-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7028429
LLI Group # 1384244
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/18/2013 11:25 by SM

Submitted: 04/19/2013 09:35
Reported: 05/01/2013 09:02

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL533 SDG#: PH034-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-533-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7028429
LLI Group # 1384244
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/18/2013 11:25 by SM

Submitted: 04/19/2013 09:35
Reported: 05/01/2013 09:02

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL533 SDG#: PH034-03

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13110SLE026	04/30/2013	08:14	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	13110SLE026	04/22/2013	02:00	Sherry L Morrow	1
10592	19a PCBs and PCTs 8082A	SW-846 8082A	1	131130012A	04/27/2013	01:11	Monica M Souders	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	131130012A	04/23/2013	18:00	Sally L Appleyard	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	131140009A	04/26/2013	05:42	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	131140009A	04/25/2013	02:00	Sherry L Morrow	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13114001	04/25/2013	22:51	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13114001	04/24/2013	13:30	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010C	1	131150637001	04/28/2013	19:30	Tara L Snyder	1
06944	Antimony	SW-846 6010C	1	131150637001	04/28/2013	19:30	Tara L Snyder	1
06935	Arsenic	SW-846 6010C	1	131150637001	04/28/2013	19:30	Tara L Snyder	1
06946	Barium	SW-846 6010C	1	131150637001	04/28/2013	19:30	Tara L Snyder	1
06947	Beryllium	SW-846 6010C	1	131150637001	04/28/2013	19:30	Tara L Snyder	1
07914	Boron	SW-846 6010C	1	131150637001	04/28/2013	19:30	Tara L Snyder	1
06949	Cadmium	SW-846 6010C	1	131150637001	04/28/2013	19:30	Tara L Snyder	1
01650	Calcium	SW-846 6010C	1	131150637001	04/28/2013	19:30	Tara L Snyder	1
06951	Chromium	SW-846 6010C	1	131150637001	04/28/2013	19:30	Tara L Snyder	1
06952	Cobalt	SW-846 6010C	1	131150637001	04/28/2013	19:30	Tara L Snyder	1
06953	Copper	SW-846 6010C	1	131150637001	04/28/2013	19:30	Tara L Snyder	1
01654	Iron	SW-846 6010C	1	131150637001	04/29/2013	21:36	Katlin N Cataldi	2
06955	Lead	SW-846 6010C	1	131150637001	04/28/2013	19:30	Tara L Snyder	1
01656	Lithium	SW-846 6010C	1	131150637001	04/28/2013	19:30	Tara L Snyder	1
01657	Magnesium	SW-846 6010C	1	131150637001	04/28/2013	19:30	Tara L Snyder	1
06958	Manganese	SW-846 6010C	1	131150637001	04/28/2013	19:30	Tara L Snyder	1
06960	Molybdenum	SW-846 6010C	1	131150637001	04/28/2013	19:30	Tara L Snyder	1
06961	Nickel	SW-846 6010C	1	131150637001	04/28/2013	19:30	Tara L Snyder	1
10145	Phosphorus	SW-846 6010C	1	131150637001	04/28/2013	19:30	Tara L Snyder	1
01662	Potassium	SW-846 6010C	1	131150637001	04/28/2013	19:30	Tara L Snyder	1
01667	Sodium	SW-846 6010C	1	131150637001	04/28/2013	19:30	Tara L Snyder	1
06969	Tin	SW-846 6010C	1	131150637001	04/28/2013	19:30	Tara L Snyder	1
06970	Titanium	SW-846 6010C	1	131150637001	04/28/2013	19:30	Tara L Snyder	1
06971	Vanadium	SW-846 6010C	1	131150637001	04/28/2013	19:30	Tara L Snyder	1
06972	Zinc	SW-846 6010C	1	131150637001	04/28/2013	19:30	Tara L Snyder	1
10146	Zirconium	SW-846 6010C	1	131150637001	04/28/2013	19:30	Tara L Snyder	1
06141	Selenium	SW-846 6020A	1	131150637001B	04/29/2013	09:06	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	131150637001A	04/29/2013	09:06	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	131150637001A	04/29/2013	09:06	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	131150637001A	04/29/2013	09:06	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-533-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7028429
LLI Group # 1384244
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/18/2013 11:25 by SM

Submitted: 04/19/2013 09:35
Reported: 05/01/2013 09:02

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL533 SDG#: PH034-03

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00159	3a Mercury 7471A	SW-846 7471B	1	131090638001	04/23/2013 07:36	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	131150637001	04/25/2013 22:32	Annamaria Stipkovits	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	131090638001	04/23/2013 01:45	Annamaria Stipkovits	1
00394	15a pH by 9045C	SW-846 9045D modified	1	13109039403A	04/19/2013 20:30	Michelle L Lalli	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13115162401A	04/25/2013 19:23	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-530-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7028430
LLI Group # 1384244
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/18/2013 14:10 by SM

Submitted: 04/19/2013 09:35
Reported: 05/01/2013 09:02

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL530 SDG#: PH034-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.68	1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.34	1
12969	Anthracene	120-12-7	1.7	U	1.7	0.34	1
12969	Benzo(a)anthracene	56-55-3	1.4	J	1.7	0.68	1
12969	Benzo(a)pyrene	50-32-8	1.9		1.7	0.68	1
12969	Benzo(b)fluoranthene	205-99-2	4.5		1.7	0.68	1
12969	Benzo(e)pyrene	192-97-2	17	U	17	3.4	1
12969	Benzo(g,h,i)perylene	191-24-2	1.5	J	1.7	0.68	1
12969	Benzo(k)fluoranthene	207-08-9	6.8		1.7	0.68	1
12969	Butylbenzylphthalate	85-68-7	18	U	18	6.2	1
12969	Di-n-butylphthalate	84-74-2	18	U	18	6.2	1
12969	Chrysene	218-01-9	2.9		1.7	0.34	1
12969	Dibenz(a,h)anthracene	53-70-3	1.7	U	1.7	0.68	1
12969	Diethylphthalate	84-66-2	18	U	18	6.2	1
12969	Dimethylphthalate	131-11-3	18	U	18	6.2	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	48		18	6.2	1
12969	Fluoranthene	206-44-0	3.4		1.7	0.68	1
12969	Fluorene	86-73-7	1.7	U	1.7	0.68	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.2	J	1.7	0.68	1
12969	1-Methylnaphthalene	90-12-0	1.7	U	1.7	0.68	1
12969	2-Methylnaphthalene	91-57-6	1.7	U	1.7	0.68	1
12969	Naphthalene	91-20-3	1.7	U	1.7	0.68	1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.68	1
12969	Di-n-octylphthalate	117-84-0	18	U	18	6.2	1
12969	Phenanthrene	85-01-8	1.8		1.7	0.68	1
12969	Pyrene	129-00-0	3.3		1.7	0.68	1
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
10592	Aroclor 5432	63496-31-1	34	U	34	10	1
10592	Aroclor 5442	12642-23-8	34	U	34	10	1
10592	Aroclor 5460	11126-42-4	34	U	34	10	1
10592	PCB-1016	12674-11-2	18	U	18	3.4	1
10592	PCB-1221	11104-28-2	18	U	18	5.3	1
10592	PCB-1232	11141-16-5	18	U	18	4.2	1
10592	PCB-1242	53469-21-9	18	U	18	3.4	1
10592	PCB-1248	12672-29-6	18	U	18	3.4	1
10592	PCB-1254	11097-69-1	18	U	18	4.5	1
10592	PCB-1260	11096-82-5	18	U	18	4.0	1
10592	PCB-1262	37324-23-5	18	U	18	3.4	1
10592	PCB-1268	11100-14-4	18	U	18	3.4	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.1	U	5.1	2.1	1
12952	EFH (C15-C20)	n.a.	5.1	U	5.1	2.1	1
12952	EFH (C21-C30)	n.a.	15		5.1	2.1	1
12952	EFH (C30-C40)	n.a.	44		10	4.1	1
12952	EFH (C8-C11)	n.a.	5.1	U	5.1	2.1	1

The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-530-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7028430
LLI Group # 1384244
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/18/2013 14:10 by SM

Submitted: 04/19/2013 09:35
Reported: 05/01/2013 09:02

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL530 SDG#: PH034-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	8,670		40.4	7.78	1
06944	Antimony	7440-36-0	4.04	U	4.04	0.505	1
06935	Arsenic	7440-38-2	4.53		4.04	0.333	1
06946	Barium	7440-39-3	68.0		1.01	0.0333	1
06947	Beryllium	7440-41-7	0.395	J	1.01	0.0676	1
07914	Boron	7440-42-8	3.08	J	10.1	0.838	1
06949	Cadmium	7440-43-9	0.194	J	1.01	0.0333	1
01650	Calcium	7440-70-2	2,410		20.2	4.06	1
06951	Chromium	7440-47-3	9.62		3.03	0.0889	1
06952	Cobalt	7440-48-4	3.26		1.01	0.0909	1
06953	Copper	7440-50-8	8.23		2.02	0.182	1
01654	Iron	7439-89-6	15,400		40.4	3.84	1
06955	Lead	7439-92-1	25.2		3.03	0.475	1
01656	Lithium	7439-93-2	18.7		4.0	0.56	1
01657	Magnesium	7439-95-4	2,760		10.1	1.75	1
06958	Manganese	7439-96-5	250		1.01	0.0838	1
06960	Molybdenum	7439-98-7	2.02	U	2.02	0.172	1
06961	Nickel	7440-02-0	5.31		2.02	0.111	1
10145	Phosphorus	7723-14-0	399		10.1	0.515	1
01662	Potassium	7440-09-7	3,640		101	13.6	1
01667	Sodium	7440-23-5	57.4	J	101	16.9	1
06969	Tin	7440-31-5	2.98	J	10.1	0.222	1
06970	Titanium	7440-32-6	891		1.01	0.172	1
06971	Vanadium	7440-62-2	19.0		1.01	0.111	1
06972	Zinc	7440-66-6	61.0		4.04	0.202	1
10146	Zirconium	7440-67-7	1.59	J	5.05	0.838	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.404	U	0.404	0.101	2
06142	Silver	7440-22-4	0.0245	J	0.202	0.0202	2
06144	Strontium	7440-24-6	10.8		0.404	0.0343	2
06145	Thallium	7440-28-0	0.226		0.202	0.0303	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0151	J	0.0202	0.0105	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045C	n.a.	7.38		0.0100	0.0100	1
	The pH was measured in water at 22.3 C.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	2.9		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-530-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7028430
LLI Group # 1384244
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/18/2013 14:10 by SM

Submitted: 04/19/2013 09:35
Reported: 05/01/2013 09:02

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL530 SDG#: PH034-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	1.02	U	1.02	0.0266	1
11031	12378-PeCDD	40321-76-4	0.208	JB	5.09	0.0299	1
11031	123478-HxCDD	39227-28-6	0.266	JB	5.09	0.0310	1
11031	123678-HxCDD	57653-85-7	0.462	J	5.09	0.0315	1
11031	123789-HxCDD	19408-74-3	0.364	JB	5.09	0.0291	1
11031	1234678-HpCDD	35822-46-9	8.58	B	5.09	0.0343	1
11031	OCDD	3268-87-9	91.8	B	10.2	0.0241	1
11031	2378-TCDF	51207-31-9	0.131	JQ	1.02	0.0512	1
11031	12378-PeCDF	57117-41-6	0.327	JBQ	5.09	0.0260	1
11031	23478-PeCDF	57117-31-4	0.432	JB	5.09	0.0248	1
11031	123478-HxCDF	70648-26-9	0.220	JB	5.09	0.0281	1
11031	123678-HxCDF	57117-44-9	0.167	JBQ	5.09	0.0256	1
11031	123789-HxCDF	72918-21-9	0.0457	JB	5.09	0.0280	1
11031	234678-HxCDF	60851-34-5	0.167	JBQ	5.09	0.0255	1
11031	1234678-HpCDF	67562-39-4	1.37	JB	5.09	0.0168	1
11031	1234789-HpCDF	55673-89-7	0.132	JB	5.09	0.0234	1
11031	OCDF	39001-02-0	2.99	JB	10.2	0.0281	1
Toxic Equivalents	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.602				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	68	25 - 164
13C12-12378-PeCDD	68	25 - 181
13C12-123478-HxCDD	73	32 - 141
13C12-123678-HxCDD	77	28 - 130
13C12-123789-HxCDD	78	28 - 130
13C12-1234678-HpCDD	71	23 - 140
13C12-OCDD	68	17 - 157
13C12-2378-TCDF	61	24 - 169
13C12-12378-PeCDF	64	24 - 185
13C12-23478-PeCDF	64	21 - 178
13C12-123478-HxCDF	71	26 - 152
13C12-123678-HxCDF	74	26 - 123
13C12-234678-HxCDF	71	28 - 136
13C12-123789-HxCDF	72	29 - 147
13C12-1234678-HpCDF	79	28 - 143
13C12-1234789-HpCDF	65	26 - 138
13C12-OCDF	62	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration

*=This limit was used in the evaluation of the final result

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Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: SL-530-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7028430
LLI Group # 1384244
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/18/2013 14:10 by SM

Submitted: 04/19/2013 09:35
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CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL530 SDG#: PH034-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-530-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7028430
LLI Group # 1384244
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Project Name: Phase 3 Subarea 7

Collected: 04/18/2013 14:10 by SM

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CDM Federal Programs Corp.
3201 Jermantown Road
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Fairfax VA 22030

SL530 SDG#: PH034-04

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13110SLE026	04/30/2013	08:46	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	13110SLE026	04/22/2013	02:00	Sherry L Morrow	1
10592	19a PCBs and PCTs 8082A	SW-846 8082A	1	131130012A	04/27/2013	01:29	Monica M Souders	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	131130012A	04/23/2013	18:00	Sally L Appleyard	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	131140009A	04/26/2013	08:27	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	131140009A	04/25/2013	02:00	Sherry L Morrow	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13114001	04/25/2013	23:47	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13114001	04/24/2013	13:30	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010C	1	131150637001	04/28/2013	19:34	Tara L Snyder	1
06944	Antimony	SW-846 6010C	1	131150637001	04/28/2013	19:34	Tara L Snyder	1
06935	Arsenic	SW-846 6010C	1	131150637001	04/28/2013	19:34	Tara L Snyder	1
06946	Barium	SW-846 6010C	1	131150637001	04/28/2013	19:34	Tara L Snyder	1
06947	Beryllium	SW-846 6010C	1	131150637001	04/28/2013	19:34	Tara L Snyder	1
07914	Boron	SW-846 6010C	1	131150637001	04/28/2013	19:34	Tara L Snyder	1
06949	Cadmium	SW-846 6010C	1	131150637001	04/28/2013	19:34	Tara L Snyder	1
01650	Calcium	SW-846 6010C	1	131150637001	04/28/2013	19:34	Tara L Snyder	1
06951	Chromium	SW-846 6010C	1	131150637001	04/28/2013	19:34	Tara L Snyder	1
06952	Cobalt	SW-846 6010C	1	131150637001	04/28/2013	19:34	Tara L Snyder	1
06953	Copper	SW-846 6010C	1	131150637001	04/28/2013	19:34	Tara L Snyder	1
01654	Iron	SW-846 6010C	1	131150637001	04/28/2013	19:34	Tara L Snyder	1
06955	Lead	SW-846 6010C	1	131150637001	04/28/2013	19:34	Tara L Snyder	1
01656	Lithium	SW-846 6010C	1	131150637001	04/28/2013	19:34	Tara L Snyder	1
01657	Magnesium	SW-846 6010C	1	131150637001	04/28/2013	19:34	Tara L Snyder	1
06958	Manganese	SW-846 6010C	1	131150637001	04/28/2013	19:34	Tara L Snyder	1
06960	Molybdenum	SW-846 6010C	1	131150637001	04/28/2013	19:34	Tara L Snyder	1
06961	Nickel	SW-846 6010C	1	131150637001	04/28/2013	19:34	Tara L Snyder	1
10145	Phosphorus	SW-846 6010C	1	131150637001	04/28/2013	19:34	Tara L Snyder	1
01662	Potassium	SW-846 6010C	1	131150637001	04/28/2013	19:34	Tara L Snyder	1
01667	Sodium	SW-846 6010C	1	131150637001	04/28/2013	19:34	Tara L Snyder	1
06969	Tin	SW-846 6010C	1	131150637001	04/28/2013	19:34	Tara L Snyder	1
06970	Titanium	SW-846 6010C	1	131150637001	04/28/2013	19:34	Tara L Snyder	1
06971	Vanadium	SW-846 6010C	1	131150637001	04/28/2013	19:34	Tara L Snyder	1
06972	Zinc	SW-846 6010C	1	131150637001	04/28/2013	19:34	Tara L Snyder	1
10146	Zirconium	SW-846 6010C	1	131150637001	04/28/2013	19:34	Tara L Snyder	1
06141	Selenium	SW-846 6020A	1	131150637001B	04/29/2013	09:09	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	131150637001A	04/29/2013	09:09	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	131150637001A	04/29/2013	09:09	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	131150637001A	04/29/2013	09:09	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-530-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7028430
LLI Group # 1384244
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/18/2013 14:10 by SM

Submitted: 04/19/2013 09:35
Reported: 05/01/2013 09:02

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL530 SDG#: PH034-04

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00159	3a Mercury 7471A	SW-846 7471B	1	131090638001	04/23/2013 07:38	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	131150637001	04/25/2013 22:32	Annamaria Stipkovits	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	131090638001	04/23/2013 01:45	Annamaria Stipkovits	1
00394	15a pH by 9045C	SW-846 9045D modified	1	13109039403A	04/19/2013 20:30	Michelle L Lalli	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13115162401A	04/25/2013 19:23	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: EB-041813 Water
SSFL Phase 3 Subarea 7

LLI Sample # WW 7028431
LLI Group # 1384244
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/18/2013 15:00 by SM

Submitted: 04/19/2013 09:35
Reported: 05/01/2013 09:02

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SLE18 SDG#: PH034-05EB*

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/l**		**ug/l**	**ug/l**	
12971	Acenaphthene	83-32-9	0.051	U	0.051	0.010	1
12971	Acenaphthylene	208-96-8	0.051	U	0.051	0.010	1
12971	Anthracene	120-12-7	0.051	U	0.051	0.010	1
12971	Benzo(a)anthracene	56-55-3	0.051	U	0.051	0.010	1
12971	Benzo(a)pyrene	50-32-8	0.051	U	0.051	0.010	1
12971	Benzo(b)fluoranthene	205-99-2	0.051	U	0.051	0.010	1
12971	Benzo(e)pyrene	192-97-2	0.051	U	0.051	0.010	1
12971	Benzo(g,h,i)perylene	191-24-2	0.051	U	0.051	0.010	1
12971	Benzo(k)fluoranthene	207-08-9	0.051	U	0.051	0.010	1
12971	Butylbenzylphthalate	85-68-7	1.0	U	1.0	0.051	1
12971	Di-n-butylphthalate	84-74-2	0.11	J	1.0	0.051	1
12971	Chrysene	218-01-9	0.051	U	0.051	0.010	1
12971	Dibenz(a,h)anthracene	53-70-3	0.051	U	0.051	0.010	1
12971	Diethylphthalate	84-66-2	0.071	J	1.0	0.051	1
12971	Dimethylphthalate	131-11-3	1.0	U	1.0	0.051	1
12971	Bis(2-Ethylhexyl)phthalate	117-81-7	0.11	J	1.0	0.051	1
12971	Fluoranthene	206-44-0	0.051	U	0.051	0.010	1
12971	Fluorene	86-73-7	0.051	U	0.051	0.010	1
12971	Indeno(1,2,3-cd)pyrene	193-39-5	0.051	U	0.051	0.010	1
12971	1-Methylnaphthalene	90-12-0	0.014	J	0.051	0.010	1
12971	2-Methylnaphthalene	91-57-6	0.018	J	0.051	0.010	1
12971	Naphthalene	91-20-3	0.086		0.051	0.030	1
12971	N-Nitrosodimethylamine	62-75-9	0.051	U	0.051	0.010	1
12971	Di-n-octylphthalate	117-84-0	1.0	U	1.0	0.051	1
12971	Phenanthrene	85-01-8	0.051	U	0.051	0.030	1
12971	Pyrene	129-00-0	0.051	U	0.051	0.010	1

Target analytes were detected in the method blank associated with the samples as noted on the QC Summary. Since the result is within the acceptance range allowed by the method, the data is reported.

GC Volatiles	**TPH GRO SW-8015B**		**ug/l**		**ug/l**	**ug/l**	
08229	TPH-GRO S.CA water C5-C12	n.a.	50	U	50	20	1
Pesticides/PCBs	**SW-846 8081B**		**ug/l**		**ug/l**	**ug/l**	
10589	Aldrin	309-00-2	0.0085	U	0.0085	0.0017	1
10589	Alpha BHC	319-84-6	0.0085	U	0.0085	0.0025	1
10589	Beta BHC	319-85-7	0.0085	U	0.0085	0.0029	1
10589	Gamma BHC - Lindane	58-89-9	0.0085	U	0.0085	0.0017	1
10589	Chlordane	57-74-9	0.42	U	0.42	0.14	1
10589	p,p-DDD	72-54-8	0.017	U	0.017	0.0042	1
10589	p,p-DDE	72-55-9	0.017	U	0.017	0.0042	1
10589	p,p-DDT	50-29-3	0.017	U	0.017	0.0044	1
10589	Delta BHC	319-86-8	0.0085	U	0.0085	0.0029	1
10589	Dieldrin	60-57-1	0.017	U	0.017	0.0045	1
10589	Endosulfan I	959-98-8	0.0085	U	0.0085	0.0036	1
10589	Endosulfan II	33213-65-9	0.017	U	0.017	0.013	1
10589	Endosulfan Sulfate	1031-07-8	0.017	U	0.017	0.0049	1
10589	Endrin	72-20-8	0.017	U	0.017	0.0069	1
10589	Endrin Aldehyde	7421-93-4	0.085	U	0.085	0.017	1
10589	Endrin Ketone	53494-70-5	0.017	U	0.017	0.0042	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: EB-041813 Water
SSFL Phase 3 Subarea 7

LLI Sample # WW 7028431
LLI Group # 1384244
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/18/2013 15:00 by SM

Submitted: 04/19/2013 09:35
Reported: 05/01/2013 09:02

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SLE18 SDG#: PH034-05EB*

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
Pesticides/PCBs	**SW-846 8081B**		**ug/l**	**ug/l**	**ug/l**	
10589	Heptachlor	76-44-8	0.0085 U	0.0085	0.0017	1
10589	Heptachlor Epoxide	1024-57-3	0.0085 U	0.0085	0.0019	1
10589	Methoxychlor	72-43-5	0.085 U	0.085	0.025	1
10589	Mirex	2385-85-5	0.21 U	0.21	0.072	1
10589	Toxaphene	8001-35-2	2.5 U	2.5	0.85	1
Pesticides/PCBs	**SW-846 8082A**		**ug/l**	**ug/l**	**ug/l**	
10591	Aroclor 5432	63496-31-1	0.42 U	0.42	0.085	1
10591	Aroclor 5442	12642-23-8	0.42 U	0.42	0.085	1
10591	Aroclor 5460	11126-42-4	0.42 U	0.42	0.085	1
10591	PCB-1016	12674-11-2	0.42 U	0.42	0.085	1
10591	PCB-1221	11104-28-2	0.42 U	0.42	0.085	1
10591	PCB-1232	11141-16-5	0.42 U	0.42	0.17	1
10591	PCB-1242	53469-21-9	0.42 U	0.42	0.085	1
10591	PCB-1248	12672-29-6	0.42 U	0.42	0.085	1
10591	PCB-1254	11097-69-1	0.42 U	0.42	0.085	1
10591	PCB-1260	11096-82-5	0.42 U	0.42	0.13	1
10591	PCB-1262	37324-23-5	0.42 U	0.42	0.17	1
10591	PCB-1268	11100-14-4	0.42 U	0.42	0.14	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/l**	**mg/l**	**mg/l**	
10365	EFH (C12-C14)	n.a.	0.62 U	0.62	0.10	1
10365	EFH (C15-C20)	n.a.	0.62 U	0.62	0.10	1
10365	EFH (C21-C30)	n.a.	0.62 U	0.62	0.10	1
10365	EFH (C30 - C40)	n.a.	0.62 U	0.62	0.10	1
10365	EFH (C8-C11)	n.a.	0.62 U	0.62	0.10	1
	The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.					
Metals	**SW-846 6010C**		**mg/l**	**mg/l**	**mg/l**	
01743	Aluminum	7429-90-5	0.400 U	0.400	0.0743	1
07044	Antimony	7440-36-0	0.0400 U	0.0400	0.0035	1
07035	Arsenic	7440-38-2	0.0400 U	0.0400	0.0068	1
07046	Barium	7440-39-3	0.0100 U	0.0100	0.00033	1
07047	Beryllium	7440-41-7	0.0100 U	0.0100	0.00067	1
08014	Boron	7440-42-8	0.100 U	0.100	0.0083	1
07049	Cadmium	7440-43-9	0.0100 U	0.0100	0.00036	1
01750	Calcium	7440-70-2	0.400 U	0.400	0.0640	1
07051	Chromium	7440-47-3	0.0300 U	0.0300	0.0011	1
07052	Cobalt	7440-48-4	0.0100 U	0.0100	0.00066	1
07053	Copper	7440-50-8	0.0200 U	0.0200	0.0021	1
01754	Iron	7439-89-6	0.400 U	0.400	0.0333	1
07055	Lead	7439-92-1	0.0300 U	0.0300	0.0051	1
01756	Lithium	7439-93-2	0.0400 U	0.0400	0.0060	1
01757	Magnesium	7439-95-4	0.200 U	0.200	0.0606	1
07058	Manganese	7439-96-5	0.0100 U	0.0100	0.00083	1
07060	Molybdenum	7439-98-7	0.0036 J	0.0200	0.0029	1
07061	Nickel	7440-02-0	0.0200 U	0.0200	0.0011	1
10143	Phosphorus	7723-14-0	0.200 U	0.200	0.0052	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: EB-041813 Water
SSFL Phase 3 Subarea 7

LLI Sample # WW 7028431
LLI Group # 1384244
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/18/2013 15:00 by SM

Submitted: 04/19/2013 09:35
Reported: 05/01/2013 09:02

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SLE18 SDG#: PH034-05EB*

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/l**	**mg/l**	**mg/l**	
01762	Potassium	7440-09-7	1.00 U	1.00	0.145	1
01767	Sodium	7440-23-5	2.00 U	2.00	0.167	1
07069	Tin	7440-31-5	0.0400 U	0.0400	0.0022	1
07070	Titanium	7440-32-6	0.0200 U	0.0200	0.0017	1
07071	Vanadium	7440-62-2	0.0100 U	0.0100	0.0013	1
07072	Zinc	7440-66-6	0.0400 U	0.0400	0.0020	1
10144	Zirconium	7440-67-7	0.100 U	0.100	0.0092	1
	SW-846 6020A		**mg/l**	**mg/l**	**mg/l**	
06041	Selenium	7782-49-2	0.0040 U	0.0040	0.00050	1
06042	Silver	7440-22-4	0.0010 U	0.0010	0.00010	1
06044	Strontium	7440-24-6	0.00028 J	0.0020	0.00022	1
06045	Thallium	7440-28-0	0.0010 U	0.0010	0.00015	1
	SW-846 7470A		**mg/l**	**mg/l**	**mg/l**	
00259	3b Mercury 7470A	7439-97-6	0.00020 U	0.00020	0.000070	1
Wet Chemistry	**SW-846 9040C**		**Std. Units**	**Std. Units**	**Std. Units**	
12152	28b. pH (9040B and 9040C)	n.a.	6.5	0.010	0.010	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: EB-041813 Water
SSFL Phase 3 Subarea 7

LLI Sample # WW 7028431
LLI Group # 1384244
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/18/2013 15:00 by SM

Submitted: 04/19/2013 09:35
Reported: 05/01/2013 09:02

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SLE18 SDG#: PH034-05EB*

CAT No.	Analysis Name	CAS Number	As Received Result		As Received MRL*	As Received EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		**pg/l**		**pg/l**	**pg/l**	
10915	2378-TCDD	1746-01-6	1.94	U	1.94	0.165	1
10915	12378-PeCDD	40321-76-4	0.420	JBQ	9.71	0.232	1
10915	123478-HxCDD	39227-28-6	9.71	U	9.71	0.159	1
10915	123678-HxCDD	57653-85-7	0.206	JBQ	9.71	0.175	1
10915	123789-HxCDD	19408-74-3	9.71	U	9.71	0.167	1
10915	1234678-HpCDD	35822-46-9	0.576	JBQ	9.71	0.189	1
10915	OCDD	3268-87-9	1.20	JB	19.4	0.416	1
10915	2378-TCDF	51207-31-9	1.94	U	1.94	0.145	1
10915	12378-PeCDF	57117-41-6	0.761	JBQ	9.71	0.144	1
10915	23478-PeCDF	57117-31-4	0.194	JBQ	9.71	0.134	1
10915	123478-HxCDF	70648-26-9	0.235	JQ	9.71	0.103	1
10915	123678-HxCDF	57117-44-9	0.191	JBQ	9.71	0.102	1
10915	123789-HxCDF	72918-21-9	0.137	JBQ	9.71	0.0883	1
10915	234678-HxCDF	60851-34-5	0.201	JBQ	9.71	0.0943	1
10915	1234678-HpCDF	67562-39-4	0.466	JB	9.71	0.103	1
10915	1234789-HpCDF	55673-89-7	0.358	JBQ	9.71	0.122	1
10915	OCDF	39001-02-0	1.24	JBQ	19.4	0.323	1
Toxic Equivalents	**EPA 1613B**		**pg/l**		**pg/l**	**pg/l**	
10915	TEQ WHO 2005 - EDLx0.0	n.a.	0.00502				1

Labeled Compounds	**%Rec**	**Windows**
13C12-2378-TCDD	81	25 - 164
13C12-12378-PeCDD	77	25 - 181
13C12-123478-HxCDD	72	32 - 141
13C12-123678-HxCDD	70	28 - 130
13C12-123789-HxCDD	70	28 - 130
13C12-1234678-HpCDD	63	23 - 140
13C12-OCDD	56	17 - 157
13C12-2378-TCDF	72	24 - 169
13C12-12378-PeCDF	75	24 - 185
13C12-23478-PeCDF	75	21 - 178
13C12-123478-HxCDF	67	26 - 152
13C12-123678-HxCDF	66	26 - 123
13C12-234678-HxCDF	67	28 - 136
13C12-123789-HxCDF	82	29 - 147
13C12-1234678-HpCDF	59	28 - 143
13C12-1234789-HpCDF	59	26 - 138
13C12-OCDF	51	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration

*=This limit was used in the evaluation of the final result

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Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: EB-041813 Water
SSFL Phase 3 Subarea 7

LLI Sample # WW 7028431
LLI Group # 1384244
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/18/2013 15:00 by SM

Submitted: 04/19/2013 09:35
Reported: 05/01/2013 09:02

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SLE18 SDG#: PH034-05EB*

CAT No.	Analysis Name	CAS Number	As Received Result	As Received MRL*	As Received EDL	Dilution Factor

F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: EB-041813 Water
SSFL Phase 3 Subarea 7

LLI Sample # WW 7028431
LLI Group # 1384244
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/18/2013 15:00 by SM

Submitted: 04/19/2013 09:35
Reported: 05/01/2013 09:02

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SLE18 SDG#: PH034-05EB*

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12971	7b SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13113WAC026	04/29/2013 00:15	Holly Berry	1
10466	BNA Water Extraction SIM	SW-846 3510C	1	13113WAC026	04/24/2013 02:30	Sherry L Morrow	1
08229	11b TPH by EPA 8015B GRO	TPH GRO SW-8015B	1	13112A20A	04/22/2013 13:56	Catherine J Schwarz	1
01146	GC VOA Water Prep	SW-846 5030B	1	13112A20A	04/22/2013 13:56	Catherine J Schwarz	1
10589	22b Pesticides by EPA 8081B	SW-846 8081B	1	131120022A	04/24/2013 12:03	Jamie L Brillhart	1
10591	21b PCBs and PCTs 8082A	SW-846 8082A	1	131120021A	04/24/2013 02:38	Monica M Souders	1
11121	PCB Waters Update IV Ext	SW-846 3510C	1	131120021A	04/23/2013 10:00	William H Saadeh	1
11120	Pesticide Waters Update IV Ext	SW-846 3510C	1	131120022A	04/23/2013 10:00	William H Saadeh	1
10365	10b TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	131130023A	04/25/2013 13:49	Heather E Williams	1
11203	EFH Waters Extraction	SW-846 3510C	1	131130023A	04/24/2013 06:00	Catherine R Wiker	1
10915	17b Dioxin/Furan by EPA 1613B	EPA 1613B	1	13112001	04/24/2013 04:27	Joseph D Anderson	1
10914	Dioxins/Furans in Water - SepF	EPA 1613B	1	13112001	04/22/2013 10:15	Ginelle L McQuaid	1
01743	Aluminum	SW-846 6010C	1	131140635001	04/26/2013 18:54	Katlin N Cataldi	1
07044	Antimony	SW-846 6010C	1	131140635001	04/26/2013 18:54	Katlin N Cataldi	1
07035	Arsenic	SW-846 6010C	1	131140635001	04/26/2013 18:54	Katlin N Cataldi	1
07046	Barium	SW-846 6010C	1	131140635001	04/26/2013 18:54	Katlin N Cataldi	1
07047	Beryllium	SW-846 6010C	1	131140635001	04/26/2013 18:54	Katlin N Cataldi	1
08014	Boron	SW-846 6010C	1	131140635001	04/26/2013 18:54	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010C	1	131140635001	04/26/2013 18:54	Katlin N Cataldi	1
01750	Calcium	SW-846 6010C	1	131140635001	04/26/2013 18:54	Katlin N Cataldi	1
07051	Chromium	SW-846 6010C	1	131140635001	04/26/2013 18:54	Katlin N Cataldi	1
07052	Cobalt	SW-846 6010C	1	131140635001	04/26/2013 18:54	Katlin N Cataldi	1
07053	Copper	SW-846 6010C	1	131140635001	04/26/2013 18:54	Katlin N Cataldi	1
01754	Iron	SW-846 6010C	1	131140635001	04/26/2013 18:54	Katlin N Cataldi	1
07055	Lead	SW-846 6010C	1	131140635001	04/26/2013 18:54	Katlin N Cataldi	1
01756	Lithium	SW-846 6010C	1	131140635001	04/26/2013 18:54	Katlin N Cataldi	1
01757	Magnesium	SW-846 6010C	1	131140635001	04/26/2013 18:54	Katlin N Cataldi	1
07058	Manganese	SW-846 6010C	1	131140635001	04/26/2013 18:54	Katlin N Cataldi	1
07060	Molybdenum	SW-846 6010C	1	131140635001	04/26/2013 18:54	Katlin N Cataldi	1
07061	Nickel	SW-846 6010C	1	131140635001	04/26/2013 18:54	Katlin N Cataldi	1
10143	Phosphorus	SW-846 6010C	1	131180635001	04/29/2013 18:34	Katlin N Cataldi	1
01762	Potassium	SW-846 6010C	1	131140635001	04/26/2013 18:54	Katlin N Cataldi	1
01767	Sodium	SW-846 6010C	1	131140635001	04/26/2013 18:54	Katlin N Cataldi	1
07069	Tin	SW-846 6010C	1	131140635001	04/26/2013 18:54	Katlin N Cataldi	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: EB-041813 Water
SSFL Phase 3 Subarea 7

LLI Sample # WW 7028431
LLI Group # 1384244
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/18/2013 15:00 by SM

Submitted: 04/19/2013 09:35
Reported: 05/01/2013 09:02

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SLE18 SDG#: PH034-05EB*

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07070	Titanium	SW-846 6010C	1	131140635001	04/26/2013 18:54	Katlin N Cataldi	1
07071	Vanadium	SW-846 6010C	1	131140635001	04/26/2013 18:54	Katlin N Cataldi	1
07072	Zinc	SW-846 6010C	1	131140635001	04/26/2013 18:54	Katlin N Cataldi	1
10144	Zirconium	SW-846 6010C	1	131140635001	04/26/2013 18:54	Katlin N Cataldi	1
06041	Selenium	SW-846 6020A	1	131180639001B	04/30/2013 14:02	David K Beck	1
06042	Silver	SW-846 6020A	1	131180639001A	04/30/2013 14:02	David K Beck	1
06044	Strontium	SW-846 6020A	1	131180639001A	04/30/2013 14:02	David K Beck	1
06045	Thallium	SW-846 6020A	1	131180639001A	04/30/2013 14:02	David K Beck	1
00259	3b Mercury 7470A	SW-846 7470A	1	131125713006	04/24/2013 08:08	Damary Valentin	1
10635	WW SW846(IV) ICP Dig (tot rec)	SW-846 3005A	1	131140635001	04/24/2013 23:30	Annamaria Stipkovits	1
10635	WW SW846(IV) ICP Dig (tot rec)	SW-846 3005A	2	131180635001	04/29/2013 09:52	James L Mertz	1
10639	ICP/MS SW846 (IV) Water Digest	SW-846 3010A modified	1	131180639001	04/29/2013 10:00	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	131125713006	04/23/2013 15:20	Nelli S Markaryan	1
12152	28b. pH (9040B and 9040C)	SW-846 9040C	1	13109002101A	04/19/2013 21:12	Clayton C Litchmore	1

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1384244
Reported: 05/01/13 at 09:02 AM

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 13110SLE026	Sample number(s): 7028427-7028430									
Acenaphthene	1.7	U	1.7	0.67	ug/kg	104		69-114		
Acenaphthylene	1.7	U	1.7	0.33	ug/kg	105		71-113		
Anthracene	1.7	U	1.7	0.33	ug/kg	104		75-116		
Benzo(a)anthracene	1.7	U	1.7	0.67	ug/kg	108		76-115		
Benzo(a)pyrene	1.7	U	1.7	0.67	ug/kg	114		76-117		
Benzo(b)fluoranthene	1.7	U	1.7	0.67	ug/kg	117		77-129		
Benzo(e)pyrene	17	U	17.	3.3	ug/kg	99		70-130		
Benzo(g,h,i)perylene	1.7	U	1.7	0.67	ug/kg	101		64-120		
Benzo(k)fluoranthene	1.7	U	1.7	0.67	ug/kg	120		71-120		
Butylbenzylphthalate	18	U	18.	6.0	ug/kg	102		65-131		
Di-n-butylphthalate	18	U	18.	6.0	ug/kg	103		67-140		
Chrysene	1.7	U	1.7	0.33	ug/kg	106		78-111		
Dibenz(a,h)anthracene	1.7	U	1.7	0.67	ug/kg	102		65-124		
Diethylphthalate	18	U	18.	6.0	ug/kg	103		68-125		
Dimethylphthalate	18	U	18.	6.0	ug/kg	103		70-130		
Bis(2-Ethylhexyl)phthalate	18	U	18.	6.0	ug/kg	100		67-143		
Fluoranthene	1.7	U	1.7	0.67	ug/kg	102		68-119		
Fluorene	1.7	U	1.7	0.67	ug/kg	107		75-123		
Indeno(1,2,3-cd)pyrene	1.7	U	1.7	0.67	ug/kg	101		66-122		
1-Methylnaphthalene	1.7	U	1.7	0.67	ug/kg	107		74-113		
2-Methylnaphthalene	1.7	U	1.7	0.67	ug/kg	108		78-121		
Naphthalene	1.7	U	1.7	0.67	ug/kg	104		64-120		
N-Nitrosodimethylamine	1.7	U	1.7	0.67	ug/kg	91		30-125		
Di-n-octylphthalate	18	U	18.	6.0	ug/kg	105		57-133		
Phenanthrene	1.7	U	1.7	0.67	ug/kg	102		72-110		
Pyrene	1.7	U	1.7	0.67	ug/kg	98		71-120		
Batch number: 13113WAC026	Sample number(s): 7028431									
Acenaphthene	0.050	U	0.050	0.010	ug/l	106	107	65-124	1	30
Acenaphthylene	0.050	U	0.050	0.010	ug/l	108	109	72-113	1	30
Anthracene	0.050	U	0.050	0.010	ug/l	112	110	70-117	2	30
Benzo(a)anthracene	0.050	U	0.050	0.010	ug/l	114	115	75-115	1	30
Benzo(a)pyrene	0.050	U	0.050	0.010	ug/l	177*	177*	72-120	0	30
Benzo(b)fluoranthene	0.050	U	0.050	0.010	ug/l	120	121	74-130	1	30
Benzo(e)pyrene	0.050	U	0.050	0.010	ug/l	99	98	70-130	1	30
Benzo(g,h,i)perylene	0.050	U	0.050	0.010	ug/l	111	114	63-121	3	30
Benzo(k)fluoranthene	0.050	U	0.050	0.010	ug/l	117	116	74-118	0	30
Butylbenzylphthalate	1.0	U	1.0	0.050	ug/l	89	94	40-138	5	30
Di-n-butylphthalate	1.0	U	1.0	0.050	ug/l	115	117	70-145	1	30
Chrysene	0.050	U	0.050	0.010	ug/l	110	111	75-112	1	30
Dibenz(a,h)anthracene	0.050	U	0.050	0.010	ug/l	109	112	66-122	3	30
Diethylphthalate	1.0	U	1.0	0.050	ug/l	109	111	74-129	2	30
Dimethylphthalate	1.0	U	1.0	0.050	ug/l	102	106	40-119	3	30

*- Outside of specification
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(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1384244
Reported: 05/01/13 at 09:02 AM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Bis(2-Ethylhexyl)phthalate	0.054	J	1.0	0.050	ug/l	97	106	70-143	8	30
Fluoranthene	0.050	U	0.050	0.010	ug/l	114	113	73-116	1	30
Fluorene	0.050	U	0.050	0.010	ug/l	106	107	74-115	0	30
Indeno(1,2,3-cd)pyrene	0.050	U	0.050	0.010	ug/l	106	109	66-122	3	30
1-Methylnaphthalene	0.050	U	0.050	0.010	ug/l	115	115	71-120	0	30
2-Methylnaphthalene	0.050	U	0.050	0.010	ug/l	113	113	74-119	0	30
Naphthalene	0.050	U	0.050	0.030	ug/l	109	108	67-118	0	30
N-Nitrosodimethylamine	0.050	U	0.050	0.010	ug/l	104	101	36-120	3	30
Di-n-octylphthalate	1.0	U	1.0	0.050	ug/l	74	77	57-145	4	30
Phenanthrene	0.050	U	0.050	0.030	ug/l	108	107	72-109	1	30
Pyrene	0.050	U	0.050	0.010	ug/l	110	112	71-116	2	30
Batch number: 13112A20A	Sample number(s): 7028431									
TPH-GRO S.CA water C5-C12	50	U	50.	20	ug/l	97	98	75-135	1	30
Batch number: 131120021A	Sample number(s): 7028431									
Aroclor 5432	0.40	U	0.40	0.080	ug/l					
Aroclor 5442	0.40	U	0.40	0.080	ug/l	72	64	35-84	11	30
Aroclor 5460	0.40	U	0.40	0.080	ug/l					
PCB-1016	0.40	U	0.40	0.080	ug/l	102	105	69-120	2	30
PCB-1221	0.40	U	0.40	0.080	ug/l					
PCB-1232	0.40	U	0.40	0.16	ug/l					
PCB-1242	0.40	U	0.40	0.080	ug/l					
PCB-1248	0.40	U	0.40	0.080	ug/l					
PCB-1254	0.40	U	0.40	0.080	ug/l					
PCB-1260	0.40	U	0.40	0.12	ug/l	108	111	69-128	3	30
PCB-1262	0.40	U	0.40	0.16	ug/l					
PCB-1268	0.40	U	0.40	0.13	ug/l					
Batch number: 131120022A	Sample number(s): 7028431									
Aldrin	0.0080	U	0.0080	0.0016	ug/l	74	88	55-126	17	30
Alpha BHC	0.0080	U	0.0080	0.0024	ug/l	82	92	63-132	11	30
Beta BHC	0.0080	U	0.0080	0.0027	ug/l	78	87	63-132	11	30
Gamma BHC - Lindane	0.0080	U	0.0080	0.0016	ug/l	83	92	68-128	10	30
Chlordane	0.40	U	0.40	0.13	ug/l					
p,p-DDD	0.016	U	0.016	0.0040	ug/l	76	89	62-143	16	30
p,p-DDE	0.016	U	0.016	0.0040	ug/l	83	93	56-137	12	30
p,p-DDT	0.016	U	0.016	0.0042	ug/l	78	92	45-134	17	30
Delta BHC	0.0080	U	0.0080	0.0027	ug/l	83	90	63-131	9	30
Dieldrin	0.016	U	0.016	0.0042	ug/l	83	92	65-135	11	30
Endosulfan I	0.0080	U	0.0080	0.0034	ug/l	81	91	48-124	11	30
Endosulfan II	0.016	U	0.016	0.012	ug/l	77	88	53-123	14	30
Endosulfan Sulfate	0.016	U	0.016	0.0046	ug/l	74	85	60-129	13	30
Endrin	0.016	U	0.016	0.0065	ug/l	81	90	43-139	11	30
Endrin Aldehyde	0.080	U	0.080	0.016	ug/l	69	78	55-123	12	20
Endrin Ketone	0.016	U	0.016	0.0040	ug/l	68	82	51-138	18	30
Heptachlor	0.0080	U	0.0080	0.0016	ug/l	73	85	57-126	16	30
Heptachlor Epoxide	0.0080	U	0.0080	0.0018	ug/l	79	88	65-128	11	30
Methoxychlor	0.080	U	0.080	0.024	ug/l	80	91	46-134	14	30
Mirex	0.20	U	0.20	0.068	ug/l					
Toxaphene	2.4	U	2.4	0.80	ug/l					
Batch number: 131130012A	Sample number(s): 7028427-7028430									
Aroclor 5432	33	U	33.	10	ug/kg					
Aroclor 5442	33	U	33.	10	ug/kg	70	70	36-106	0	30
Aroclor 5460	33	U	33.	10	ug/kg					

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1384244
Reported: 05/01/13 at 09:02 AM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
PCB-1016	17	U	17.	3.3	ug/kg	102		80-120		
PCB-1221	17	U	17.	5.1	ug/kg					
PCB-1232	17	U	17.	4.1	ug/kg					
PCB-1242	17	U	17.	3.3	ug/kg					
PCB-1248	17	U	17.	3.3	ug/kg					
PCB-1254	17	U	17.	4.4	ug/kg					
PCB-1260	17	U	17.	3.9	ug/kg	106		72-120		
PCB-1262	17	U	17.	3.3	ug/kg					
PCB-1268	17	U	17.	3.3	ug/kg					
Batch number: 131130023A	Sample number(s): 7028431									
EFH (C12-C14)	0.60	U	0.60	0.10	mg/l	79	76	70-130	4	30
EFH (C15-C20)	0.60	U	0.60	0.10	mg/l	85	80	70-130	5	30
EFH (C21-C30)	0.60	U	0.60	0.10	mg/l	87	82	70-130	6	30
EFH (C30 - C40)	0.60	U	0.60	0.10	mg/l	70	67*	70-130	5	30
EFH (C8-C11)	0.60	U	0.60	0.10	mg/l	63*	62*	70-130	2	30
Batch number: 131140009A	Sample number(s): 7028427-7028430									
EFH (C12-C14)	5.0	U	5.0	2.0	mg/kg	90		70-123		
EFH (C15-C20)	5.0	U	5.0	2.0	mg/kg	94		75-128		
EFH (C21-C30)	5.0	U	5.0	2.0	mg/kg	95		64-134		
EFH (C30-C40)	10	U	10.	4.0	mg/kg	55*		65-128		
EFH (C8-C11)	5.0	U	5.0	2.0	mg/kg	74		49-107		
Batch number: 131090638001	Sample number(s): 7028427-7028430									
3a Mercury 7471A	0.0167	U	0.0167	0.0103	mg/kg	113		85-120		
Batch number: 131125713006	Sample number(s): 7028431									
3b Mercury 7470A	0.00020	U	0.00020	0.00007 0	mg/l	93	94	90-115	0	20
Batch number: 131140635001	Sample number(s): 7028431									
Aluminum	0.400	U	0.400	0.0743	mg/l	117*	118*	90-112	1	20
Antimony	0.0400	U	0.0400	0.0035	mg/l	107	107	88-111	0	20
Arsenic	0.0400	U	0.0400	0.0068	mg/l	107	108	90-113	1	20
Barium	0.0100	U	0.0100	0.00033	mg/l	108	109	90-110	1	20
Beryllium	0.0100	U	0.0100	0.00067	mg/l	105	107	88-110	2	20
Boron	0.100	U	0.100	0.0083	mg/l	97	99	89-110	2	20
Cadmium	0.0100	U	0.0100	0.00036	mg/l	109	110	90-112	2	20
Calcium	0.400	U	0.400	0.0640	mg/l	116*	117*	90-110	1	20
Chromium	0.0300	U	0.0300	0.0011	mg/l	102	103	90-110	2	20
Cobalt	0.0100	U	0.0100	0.00066	mg/l	109	110	90-110	1	20
Copper	0.0024	J	0.0200	0.0021	mg/l	107	109	90-112	2	20
Iron	0.400	U	0.400	0.0333	mg/l	116*	117*	90-112	1	20
Lead	0.0300	U	0.0300	0.0051	mg/l	107	110	88-110	3	20
Lithium	0.0400	U	0.0400	0.0060	mg/l	107	108	90-110	1	20
Magnesium	0.200	U	0.200	0.0606	mg/l	115*	116*	90-110	1	20
Manganese	0.0100	U	0.0100	0.00083	mg/l	107	109	90-110	2	20
Molybdenum	0.0200	U	0.0200	0.0029	mg/l	106	108	90-110	2	20
Nickel	0.0200	U	0.0200	0.0011	mg/l	110	112*	90-111	2	20
Potassium	1.00	U	1.00	0.145	mg/l	113	114	85-115	1	20
Sodium	2.00	U	2.00	0.167	mg/l	113	115*	87-114	1	20
Tin	0.0400	U	0.0400	0.0022	mg/l	102	103	90-110	1	20
Titanium	0.0200	U	0.0200	0.0017	mg/l	104	106	90-113	2	20
Vanadium	0.0100	U	0.0100	0.0013	mg/l	104	106	90-110	2	20
Zinc	0.0400	U	0.0400	0.0020	mg/l	109	110	90-110	1	20

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1384244
Reported: 05/01/13 at 09:02 AM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Zirconium	0.100	U	0.100	0.0092	mg/l	105	107	90-110	2	20
Batch number: 131150637001	Sample number(s): 7028427-7028430									
Aluminum	10.3	J	40.0	7.71	mg/kg	105		80-120		
Antimony	4.00	U	4.00	0.500	mg/kg	105		80-120		
Arsenic	4.00	U	4.00	0.330	mg/kg	104		80-120		
Barium	1.00	U	1.00	0.0330	mg/kg	102		80-120		
Beryllium	1.00	U	1.00	0.0670	mg/kg	103		80-120		
Boron	1.62	J	10.0	0.830	mg/kg	100		80-120		
Cadmium	1.00	U	1.00	0.0330	mg/kg	102		80-120		
Calcium	25.6		20.0	4.02	mg/kg	107		80-120		
Chromium	3.00	U	3.00	0.0880	mg/kg	103		80-120		
Cobalt	1.00	U	1.00	0.0900	mg/kg	103		80-120		
Copper	2.00	U	2.00	0.180	mg/kg	106		80-120		
Iron	40.0	U	40.0	3.80	mg/kg	101		80-120		
Lead	3.00	U	3.00	0.470	mg/kg	104		80-120		
Lithium	4.0	U	4.0	0.55	mg/kg	103		80-120		
Magnesium	10.0	U	10.0	1.73	mg/kg	100		80-120		
Manganese	1.00	U	1.00	0.0830	mg/kg	104		80-120		
Molybdenum	2.00	U	2.00	0.170	mg/kg	101		80-120		
Nickel	2.00	U	2.00	0.110	mg/kg	106		80-120		
Phosphorus	1.45	J	10.0	0.510	mg/kg	106		80-120		
Potassium	100 U		100.	13.5	mg/kg	101		80-120		
Sodium	100 U		100.	16.7	mg/kg	100		80-120		
Tin	1.45	J	10.0	0.220	mg/kg	103		80-120		
Titanium	1.00	U	1.00	0.170	mg/kg	103		80-120		
Vanadium	1.00	U	1.00	0.110	mg/kg	102		80-120		
Zinc	4.00	U	4.00	0.200	mg/kg	105		80-120		
Zirconium	5.00	U	5.00	0.830	mg/kg	102		80-120		
Batch number: 131150637001A	Sample number(s): 7028427-7028430									
Silver	0.200	U	0.200	0.0200	mg/kg	100		80-120		
Strontium	0.179	J	0.400	0.0340	mg/kg	98		80-120		
Thallium	0.200	U	0.200	0.0300	mg/kg	111		80-120		
Batch number: 131150637001B	Sample number(s): 7028427-7028430									
Selenium	0.400	U	0.400	0.100	mg/kg	98		80-120		
Batch number: 131180635001	Sample number(s): 7028431									
Phosphorus	0.200	U	0.200	0.0052	mg/l	99	100	90-110	1	20
Batch number: 131180639001A	Sample number(s): 7028431									
Silver	0.0010	U	0.0010	0.00010	mg/l	99	100	90-115	1	20
Strontium	0.0020	U	0.0020	0.00022	mg/l	96	100	80-120	4	20
Thallium	0.0010	U	0.0010	0.00015	mg/l	98	100	80-120	2	20
Batch number: 131180639001B	Sample number(s): 7028431									
Selenium	0.0040	U	0.0040	0.00050	mg/l	98	106	80-120	8	20
Batch number: 13109002101A	Sample number(s): 7028431									
28b. pH (9040B and 9040C)						100		99-103		
Batch number: 13109039403A	Sample number(s): 7028427-7028430									
15a pH by 9045C						100		95-105		

*- Outside of specification
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(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1384244
Reported: 05/01/13 at 09:02 AM

Analysis Name	Blank Result	Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 13115162401A	Sample number(s): 7028427-7028430								
14a Moisture Content by 160.3					100		80-120		

Analysis Name	Blank Result	Blank MRL**	Blank EDL	Report Units	OPR %REC	OPRD %REC	OPR/OPRD Limits	RPD	RPD Max
Batch number: 13112001	Sample number(s): 7028431								
2378-TCDD	2.00 U	2.00	0.166	pg/l	89		60-150		
12378-PeCDD	0.478 J	10.0	0.221	pg/l	93		60-150		
123478-HxCDD	10.0 U	10.0	0.130	pg/l	88		60-150		
123678-HxCDD	0.209 J	10.0	0.137	pg/l	90		60-150		
123789-HxCDD	0.143 J	10.0	0.128	pg/l	91		60-150		
1234678-HpCDD	0.304 J	10.0	0.152	pg/l	93		60-150		
OCDD	0.400 J	20.0	0.297	pg/l	91		60-150		
2378-TCDF	2.00 U	2.00	0.162	pg/l	91		60-150		
12378-PeCDF	0.459 J	10.0	0.131	pg/l	92		60-150		
23478-PeCDF	0.221 J	10.0	0.127	pg/l	91		60-150		
123478-HxCDF	10.0 U	10.0	0.0895	pg/l	93		60-150		
123678-HxCDF	0.192 J	10.0	0.0871	pg/l	91		60-150		
123789-HxCDF	0.213 J	10.0	0.0779	pg/l	92		60-150		
234678-HxCDF	0.148 J	10.0	0.0830	pg/l	90		60-150		
1234678-HpCDF	0.268 J	10.0	0.0605	pg/l	91		60-150		
1234789-HpCDF	0.249 J	10.0	0.0770	pg/l	91		60-150		
OCDF	0.832 J	20.0	0.210	pg/l	89		60-150		
Batch number: 13114001	Sample number(s): 7028427-7028430								
2378-TCDD	1.00 U	1.00	0.0193	ng/kg	90		67-158		
12378-PeCDD	0.0221 J	5.00	0.0168	ng/kg	92		70-142		
123478-HxCDD	0.0132 J	5.00	0.0107	ng/kg	99		70-164		
123678-HxCDD	5.00 U	5.00	0.0113	ng/kg	96		76-134		
123789-HxCDD	0.0184 J	5.00	0.0111	ng/kg	98		64-162		
1234678-HpCDD	0.0680 J	5.00	0.0123	ng/kg	95		70-140		
OCDD	0.148 J	10.0	0.0153	ng/kg	96		78-144		
2378-TCDF	1.00 U	1.00	0.0176	ng/kg	94		75-158		
12378-PeCDF	0.0555 J	5.00	0.00908	ng/kg	96		80-134		
23478-PeCDF	0.0295 J	5.00	0.00879	ng/kg	96		68-160		
123478-HxCDF	0.0510 J	5.00	0.0109	ng/kg	99		72-134		
123678-HxCDF	0.0214 J	5.00	0.0102	ng/kg	97		84-130		
123789-HxCDF	0.0300 J	5.00	0.0125	ng/kg	99		78-130		
234678-HxCDF	0.0286 J	5.00	0.0105	ng/kg	98		70-156		
1234678-HpCDF	0.0378 J	5.00	0.00650	ng/kg	97		82-122		
1234789-HpCDF	0.0182 J	5.00	0.00892	ng/kg	98		78-138		
OCDF	0.0895 J	10.0	0.0198	ng/kg	96		63-170		
Batch number: 13112001	Sample number(s): 7028431								
TEQ WHO 2005 - EDLx0.0	U			pg/l					
Batch number: 13114001	Sample number(s): 7028427-7028430								
TEQ WHO 2005 - EDLx0.0	0.00357			ng/kg					

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1384244
Reported: 05/01/13 at 09:02 AM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 13110SLE026	Sample number(s): 7028427-7028430 UNSPK: P026476								
Acenaphthene	103	103	48-127	0	30				
Acenaphthylene	102	104	49-121	2	30				
Anthracene	99	100	52-126	2	30				
Benzo(a)anthracene	108	104	32-135	4	30				
Benzo(a)pyrene	113	110	36-138	3	30				
Benzo(b)fluoranthene	134	129	26-142	4	30				
Benzo(e)pyrene	103	99	70-130	3	30				
Benzo(g,h,i)perylene	63	60	33-141	4	30				
Benzo(k)fluoranthene	122	115	47-129	5	30				
Butylbenzylphthalate	114	112	59-153	1	30				
Di-n-butylphthalate	93	159*	62-154	34*	30				
Chrysene	104	99	29-148	5	30				
Dibenz(a,h)anthracene	78	76	34-125	3	30				
Diethylphthalate	102	103	76-127	1	30				
Dimethylphthalate	101	102	62-136	1	30				
Bis(2-Ethylhexyl)phthalate	113	111	39-167	2	30				
Fluoranthene	104	101	47-135	3	30				
Fluorene	105	105	50-129	0	30				
Indeno(1,2,3-cd)pyrene	75	71	17-136	4	30				
1-Methylnaphthalene	109	108	50-131	1	30				
2-Methylnaphthalene	110	109	28-144	1	30				
Naphthalene	102	104	31-148	2	30				
N-Nitrosodimethylamine	90	93	48-113	3	30				
Di-n-octylphthalate	154	147	52-162	5	30				
Phenanthrene	105	104	29-142	1	30				
Pyrene	103	97	26-143	7	30				
Batch number: 131130012A	Sample number(s): 7028427-7028430 UNSPK: P031213								
PCB-1016	100	95	16-146	4	50				
PCB-1260	95	99	40-134	4	50				
Batch number: 131140009A	Sample number(s): 7028427-7028430 UNSPK: P031213								
EFH (C12-C14)	99	91	49-123	8	20				
EFH (C15-C20)	124*	137*	49-123	10	20				
EFH (C21-C30)	127*	182*	49-123	18	20				
EFH (C30-C40)	203 (2)	296 (2)	49-123	14	20				
EFH (C8-C11)	106	95	49-123	11	20				
Batch number: 131090638001	Sample number(s): 7028427-7028430 UNSPK: P026476 BKG: P026476								
3a Mercury 7471A	110	108	65-135	2	20	0.0195 U	0.0114 J	200* (1)	20
Batch number: 131150637001	Sample number(s): 7028427-7028430 UNSPK: P031213 BKG: P031213								
Aluminum	2585 (2)	2282 (2)	75-125	3	20	13,100	14,600	11	20
Antimony	67*	64*	75-125	4	20	3.96 U	0.540 J	200* (1)	20
Arsenic	95	105	75-125	7	20	4.95	5.12	3 (1)	20
Barium	104	106	75-125	1	20	70.7	77.9	10	20

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1384244
Reported: 05/01/13 at 09:02 AM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Beryllium	106	104	75-125	1	20	0.522 J	0.579 J	10 (1)	20
Boron	101	100	75-125	1	20	5.72 J	7.99 J	33* (1)	20
Cadmium	97	98	75-125	1	20	0.116 J	0.138 J	17 (1)	20
Calcium	140 (2)	198 (2)	75-125	7	20	2,840	3,060	8	20
Chromium	107	104	75-125	2	20	19.7	20.4	3	20
Cobalt	100	100	75-125	0	20	4.62	5.28	13 (1)	20
Copper	111	110	75-125	0	20	12.4	13.2	7	20
Iron	3126 (2)	2463 (2)	75-125	3	20	21,800	23,500	7	20
Lead	104	185*	75-125	24*	20	28.1	43.6	43*	20
Lithium	103	101	75-125	1	20	25.6	25.7	0	20
Magnesium	249 (2)	221 (2)	75-125	1	20	5,100	5,180	2	20
Manganese	145 (2)	132 (2)	75-125	2	20	266	298	11	20
Molybdenum	99	99	75-125	0	20	0.291 J	0.314 J	8 (1)	20
Nickel	103	101	75-125	1	20	10.5	11.2	6	20
Phosphorus	78 (2)	113 (2)	75-125	7	20	420	439	4	20
Potassium	140*	137*	75-125	1	20	3,350	3,630	8	20
Sodium	99	98	75-125	1	20	73.1 J	77.5 J	6 (1)	20
Tin	94	95	75-125	1	20	3.02 J	3.24 J	7 (1)	20
Titanium	359 (2)	334 (2)	75-125	2	20	1,120	1,230	9	20
Vanadium	114	112	75-125	1	20	35.4	39.1	10	20
Zinc	106	106	75-125	0	20	60.1	62.1	3	20
Zirconium	99	98	75-125	1	20	2.43 J	2.76 J	13 (1)	20
Batch number: 131150637001A	Sample number(s): 7028427-7028430 UNSPK: P031213 BKG: P031213								
Silver	96	98	75-125	2	20	0.0269 J	0.0419 J	44* (1)	20
Strontium	69*	75	75-125	3	20	12.7	13.0	2	20
Thallium	87	90	75-125	2	20	0.272	0.264	3 (1)	20
Batch number: 131150637001B	Sample number(s): 7028427-7028430 UNSPK: P031213 BKG: P031213								
Selenium	95	90	75-125	5	20	0.396 U	0.396 U	0 (1)	20
Batch number: 13109002101A	Sample number(s): 7028431 BKG: P027154								
28b. pH (9040B and 9040C)						6.1	6.2	1	3
Batch number: 13109039403A	Sample number(s): 7028427-7028430 BKG: 7028427								
15a pH by 9045C						6.85	6.81	1	3
Batch number: 13115162401A	Sample number(s): 7028427-7028430 BKG: P026477								
14a Moisture Content by 160.3						4.4	4.4	0	20

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 7a SVOC SIM EPA 8270D
Batch number: 13110SLE026

Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1384244
Reported: 05/01/13 at 09:02 AM

Surrogate Quality Control

			d10
7028427	95	115	105
7028428	95	116	80
7028429	94	121	103
7028430	90	110	95
Blank	91	108	101
LCS	96	115	106
MS	97	117	108
MSD	96	115	106
Limits:	54-129	61-134	55-129

Analysis Name: 7b SVOC SIM EPA 8270D
Batch number: 13113WAC026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
7028431	104	102	99
Blank	103	114	100
LCS	107	130	104
LCSD	105	130	103
Limits:	64-120	62-141	58-134

Analysis Name: 11b TPH by EPA 8015B GRO
Batch number: 13112A20A

	Trifluorotoluene-F
7028431	87
Blank	87
LCS	110
LCSD	111
Limits:	63-135

Analysis Name: 21b PCBs and PCTs 8082A
Batch number: 131120021A

	Tetrachloro-m-xylene	Decachlorobiphenyl
7028431	123*	95
Blank	126*	96
LCS	117	71
LCSD	118	101
Limits:	45-120	45-120

Analysis Name: 22b Pesticides by EPA 8081B
Batch number: 131120022A

	Tetrachloro-m-xylene	Decachlorobiphenyl
7028431	96	87
Blank	93	80
LCS	85	66
LCSD	94	84

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1384244
Reported: 05/01/13 at 09:02 AM

Surrogate Quality Control

Limits: 60-140 20-120

Analysis Name: 19a PCBs and PCTs 8082A
Batch number: 131130012A

	Tetrachloro-m-xylene	Decachlorobiphenyl
7028427	118	101
7028428	119	97
7028429	125*	102
7028430	106	91
Blank	122*	97
LCS	118	102
LCSD	122*	106
MS	120	103
MSD	118	104
Limits:	45-120	45-120

Analysis Name: 10b TPH by EPA 8015B (DRO)
Batch number: 131130023A

	Chlorobenzene	Orthoterphenyl
7028431	80	82
Blank	76	78
LCS	74	82
LCSD	73	78
Limits:	45-126	69-119

Analysis Name: 10a TPH by EPA 8015B (DRO)
Batch number: 131140009A

	Chlorobenzene	Orthoterphenyl
7028427	100	100
7028428	92	94
7028429	97	97
7028430	95	98
Blank	87	77
LCS	91	91
MS	95	96
MSD	88	89
Limits:	37-125	66-123

Analysis Name: 17b Dioxin/Furan by EPA 1613B
Batch number: 13112001

	13C12-2378-TCDD	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF	13C12-234678-HxCDF	13C12-123789-HxCDF
7028431	81	75	67	66	67	82
Blank	75	74	74	72	72	87
OPR	65	70	69	69	69	76
Limits:	25-164	21-178	26-152	26-123	28-136	29-147

	13C12-1234678-HpCDF	13C12-1234789-HpCDF	13C12-OCDF	13C12-12378-PeCDD	13C12-123478-HxCDD	13C12-123678-HxCDD

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1384244
Reported: 05/01/13 at 09:02 AM

Surrogate Quality Control

7028431	59	59	51	77	72	70
Blank	74	71	71	81	78	77
OPR	69	67	66	73	75	73
Limits:	28-143	26-138	17-157	25-181	32-141	28-130

	13C12-123789-HxCDD	13C12-1234678-HpCDD	13C12-OCDD	13C12-2378-TCDF	13C12-12378-PeCDF
7028431	70	63	56	72	75
Blank	78	77	78	66	76
OPR	73	71	74	63	71
Limits:	28-130	23-140	17-157	24-169	24-185

Analysis Name: 23a Dioxin/Furan by EPA 1613B
Batch number: 13114001

	13C12-2378-TCDD	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF	13C12-234678-HxCDF	13C12-123789-HxCDF
7028427	73	71	81	83	80	78
7028428	75	71	76	81	78	78
7028429	69	68	75	79	75	75
7028430	68	64	71	74	71	72
Blank	74	74	82	86	83	80
OPR	68	69	77	81	78	77
Limits:	25-164	21-178	26-152	26-123	28-136	29-147

	13C12-1234678-HpCDF	13C12-1234789-HpCDF	13C12-OCDF	13C12-12378-PeCDD	13C12-123478-HxCDD	13C12-123678-HxCDD
7028427	86	74	72	76	81	84
7028428	94	71	68	76	82	85
7028429	84	69	68	72	77	80
7028430	79	65	62	68	73	77
Blank	96	78	76	79	88	86
OPR	89	70	68	75	79	81
Limits:	28-143	26-138	17-157	25-181	32-141	28-130

	13C12-123789-HxCDD	13C12-1234678-HpCDD	13C12-OCDD	13C12-2378-TCDF	13C12-12378-PeCDF
7028427	84	81	79	67	70
7028428	87	81	77	68	73
7028429	80	76	74	62	69
7028430	78	71	68	61	64
Blank	86	87	84	65	74
OPR	79	78	75	61	70
Limits:	28-130	23-140	17-157	24-169	24-185

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acct#13013 Gp#1384244 sample#7028427-31

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 4/18/2013
CarrierName: FedEx
AirbillNo: 7995 6315 9383

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20130418-01
Cooler #: 1
Lab: Lancaster
Lab Phone: 717-556-7259
Lab Address: 2425 New Holland Pike, Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Other Analysis/Notes
SL-531-SA7-SB-0.0-0.5	4/18/13 08:55	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-531-SA7-SB-0.0-0.5	4/18/13 08:55	SO	None	1 - 4 oz glass	10 day													X																			
SL-532-SA7-SB-0.0-0.5	4/18/13 09:45	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-532-SA7-SB-0.0-0.5	4/18/13 09:45	SO	None	1 - 4 oz glass	10 day													X																			
SL-533-SA7-SB-0.0-0.5	4/18/13 11:25	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-533-SA7-SB-0.0-0.5	4/18/13 11:25	SO	None	1 - 4 oz glass	10 day													X																			
SL-530-SA7-SB-0.0-0.5	4/18/13 14:10	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-530-SA7-SB-0.0-0.5	4/18/13 14:10	SO	None	1 - 4 oz glass	10 day													X																			

Special Instructions:

Sampler: Steven Morgan

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
V.Gh	4/18/13										
									C.Gsher	4/19/13	0935

acct#13013 Ap#1384244 Sample#7028427-31

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 4/18/2013
CarrierName: FedEx
AirbillNo: 7995 6315 9383

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20130418-02
Cooler #: 2
Lab: Lancaster
Lab Phone: 717-556-7259
Lab Address: 2425 New Holland Pike, Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Other Analysis/Notes
EB-041813	4/18/13 15:00	WQ	HNO3 pH<2	1 - 250 mL Amber	10 day	X		X																													
EB-041813	4/18/13 15:00	WQ	None	1 - 250 mL Amber	10 day							X																									
EB-041813	4/18/13 15:00	WQ	None	1 - 1 L Amber	10 day									X																							
EB-041813	4/18/13 15:00	WQ	None	1 - 250 mL Amber	10 day										X																						
EB-041813	4/18/13 15:00	WQ	None	1 - 250 mL Poly	10 day														X																		
EB-041813	4/18/13 15:00	WQ	None	1 - 250 mL Amber	10 day																	X															
EB-041813	4/18/13 15:00	WQ	HCl	3 - 40 mL Vial	10 day																				X												
EB-041813	4/18/13 15:00	WQ	HCl	2 - 1 L Amber	10 day																					X											

Special Instructions:

Sampler: Shawn Mercer

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
V. Gh	4/18/13								C Gisher	4/19/13	0935

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C# 1384244

Environmental Sample Administration
Receipt Documentation Log

Client/Project: CDM Smith

Date of Receipt: 4/19/13

Time of Receipt: 0935

Source Code: 50-1

Shipping Container Sealed: YES NO

Custody Seal Present * : YES NO

* Custody seal was intact unless otherwise noted in the discrepancy section

Package: Chilled Not Chilled

Temperature of Shipping Containers							
Cooler #	Thermometer ID	Temperature (°C)	Temp Bottle (TB) or Surface Temp (ST)	Wet Ice (WI) or Dry Ice (DI) or Ice Packs (IP)	Ice Present? Y/N	Loose (L) Bagged Ice (B) or NA	Comments
1	2783	2.6	TB	WI	Y	B	
2	↓	2.7	↓	↓	↓	↓	
3							
4							
5							
6							

Number of Trip Blanks received NOT listed on chain of custody: Ø

Paperwork Discrepancy/Unpacking Problems:

Unpacker Signature/Emp#: CEshler 3647 **Date/Time:** 4/19/13 1120

Issued by Dept. 6042 Management

2174.06

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	**BMQL**	Below Minimum Quantitation Level
N.D.	none detected	**MPN**	Most Probable Number
TNTC	Too Numerous To Count	**CP Units**	cobalt-chloroplatinate units
IU	International Units	**NTU**	nephelometric turbidity units
umhos/cm	micromhos/cm	**ng**	nanogram(s)
C	degrees Celsius	**F**	degrees Fahrenheit
meq	milliequivalents	**lb.**	pound(s)
g	gram(s)	**kg**	kilogram(s)
µg	microgram(s)	**mg**	milligram(s)
mL	milliliter(s)	**L**	liter(s)
m3	cubic meter(s)	**µL**	microliter(s)
		pg/L	picogram/liter

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

J estimated value – The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	**B**	Value is <CRDL, but ≥IDL
B	Analyte was also detected in the blank	**E**	Estimated due to interference
C	Pesticide result confirmed by GC/MS	**M**	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	**N**	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	**S**	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	**U**	Compound was not detected
P	Concentration difference between primary and confirmation columns >25%	**W**	Post digestion spike out of control limits
U	Compound was not detected	*****	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	**+**	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as “analyze immediately” are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL LANCASTER LABORATORIES BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF LANCASTER LABORATORIES AND (B) WHETHER LANCASTER LABORATORIES HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Lancaster Laboratories which includes any conditions that vary from the Standard Terms and Conditions, and Lancaster hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

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Analysis Report

ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

May 02, 2013

Project: Phase 3 Subarea 7

Submittal Date: 04/20/2013
Group Number: 1384434
SDG: PH035
PO Number: 1204-002-001-AL
State of Sample Origin: CA

Client Sample Description	Lancaster Labs (LLI) #
SL-518-SA7-SB-0.0-0.5 Soil	7029644
SL-520-SA7-SB-0.0-0.5 Soil	7029645
SL-511-SA7-SB-0.0-0.5 Soil	7029646
EB-041913 Water	7029647

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO	LLI	Attn: Nicole Maljovec
ELECTRONIC COPY TO	Eurofins Lancaster Labs	Attn: Natalie Luciano

Respectfully Submitted,

Nicole L. Maljovec
Principal Specialist Group Leader

(717) 556-7259

Sample Description: SL-518-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7029644
LLI Group # 1384434
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/19/2013 08:50 by SM

Submitted: 04/20/2013 09:20
Reported: 05/02/2013 14:25

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL518 SDG#: PH035-01

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	17	U	17	6.8	10
12969	Acenaphthylene	208-96-8	17	U	17	3.4	10
12969	Anthracene	120-12-7	17	U	17	3.4	10
12969	Benzo(a)anthracene	56-55-3	17	U	17	6.8	10
12969	Benzo(a)pyrene	50-32-8	17	U	17	6.8	10
12969	Benzo(b)fluoranthene	205-99-2	13	J	17	6.8	10
12969	Benzo(e)pyrene	192-97-2	170	U	170	34	10
12969	Benzo(g,h,i)perylene	191-24-2	17	U	17	6.8	10
12969	Benzo(k)fluoranthene	207-08-9	14	J	17	6.8	10
12969	Butylbenzylphthalate	85-68-7	180	U	180	61	10
12969	Di-n-butylphthalate	84-74-2	180	U	180	61	10
12969	Chrysene	218-01-9	7.5	J	17	3.4	10
12969	Dibenz(a,h)anthracene	53-70-3	17	U	17	6.8	10
12969	Diethylphthalate	84-66-2	180	U	180	61	10
12969	Dimethylphthalate	131-11-3	180	U	180	61	10
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	180	U	180	61	10
12969	Fluoranthene	206-44-0	7.7	J	17	6.8	10
12969	Fluorene	86-73-7	17	U	17	6.8	10
12969	Indeno(1,2,3-cd)pyrene	193-39-5	17	U	17	6.8	10
12969	1-Methylnaphthalene	90-12-0	17	U	17	6.8	10
12969	2-Methylnaphthalene	91-57-6	17	U	17	6.8	10
12969	Naphthalene	91-20-3	17	U	17	6.8	10
12969	N-Nitrosodimethylamine	62-75-9	17	U	17	6.8	10
12969	Di-n-octylphthalate	117-84-0	180	U	180	61	10
12969	Phenanthrene	85-01-8	17	U	17	6.8	10
12969	Pyrene	129-00-0	7.7	J	17	6.8	10
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
10592	Aroclor 5432	63496-31-1	170	U	170	51	5
10592	Aroclor 5442	12642-23-8	170	U	170	51	5
10592	Aroclor 5460	11126-42-4	110	J	170	51	5
10592	PCB-1016	12674-11-2	87	U	87	17	5
10592	PCB-1221	11104-28-2	87	U	87	26	5
10592	PCB-1232	11141-16-5	87	U	87	21	5
10592	PCB-1242	53469-21-9	87	U	87	17	5
10592	PCB-1248	12672-29-6	87	U	87	17	5
10592	PCB-1254	11097-69-1	430		87	22	5
10592	PCB-1260	11096-82-5	87	U	87	20	5
10592	PCB-1262	37324-23-5	87	U	87	17	5
10592	PCB-1268	11100-14-4	87	U	87	17	5
	Project defined QC acceptance limits are not met. All QC is compliant with the laboratory statistically generated limits.						
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.1	U	5.1	2.0	1
12952	EFH (C15-C20)	n.a.	5.1	U	5.1	2.0	1
12952	EFH (C21-C30)	n.a.	6.2		5.1	2.0	1
12952	EFH (C30-C40)	n.a.	35		10	4.1	1
12952	EFH (C8-C11)	n.a.	5.1	U	5.1	2.0	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-518-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7029644
LLI Group # 1384434
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/19/2013 08:50 by SM

Submitted: 04/20/2013 09:20
Reported: 05/02/2013 14:25

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL518 SDG#: PH035-01

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
	The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.						
Metals		**SW-846 6010C**	**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	13,900		39.8	7.67	1
06944	Antimony	7440-36-0	0.777	J	3.98	0.497	1
06935	Arsenic	7440-38-2	5.28		3.98	0.328	1
06946	Barium	7440-39-3	84.9		0.995	0.0328	1
06947	Beryllium	7440-41-7	0.544	J	0.995	0.0666	1
07914	Boron	7440-42-8	3.73	J	9.95	0.826	1
06949	Cadmium	7440-43-9	0.606	J	0.995	0.0328	1
01650	Calcium	7440-70-2	3,620		19.9	4.00	1
06951	Chromium	7440-47-3	21.8		2.98	0.0875	1
06952	Cobalt	7440-48-4	10.8		0.995	0.0895	1
06953	Copper	7440-50-8	20.2		1.99	0.179	1
01654	Iron	7439-89-6	21,900		79.6	7.56	2
06955	Lead	7439-92-1	24.1		2.98	0.468	1
01656	Lithium	7439-93-2	25.7		4.0	0.55	1
01657	Magnesium	7439-95-4	5,270		9.95	1.72	1
06958	Manganese	7439-96-5	330		0.995	0.0826	1
06960	Molybdenum	7439-98-7	0.359	J	1.99	0.169	1
06961	Nickel	7440-02-0	13.4		1.99	0.109	1
10145	Phosphorus	7723-14-0	548		9.95	0.507	1
01662	Potassium	7440-09-7	4,520		99.5	13.4	1
01667	Sodium	7440-23-5	77.0	J	99.5	16.6	1
06969	Tin	7440-31-5	3.33	J	9.95	0.219	1
06970	Titanium	7440-32-6	1,190		0.995	0.169	1
06971	Vanadium	7440-62-2	40.1		0.995	0.109	1
06972	Zinc	7440-66-6	109		3.98	0.199	1
10146	Zirconium	7440-67-7	2.82	J	4.97	0.826	1
		SW-846 6020A	**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.398	U	0.398	0.0995	2
06142	Silver	7440-22-4	0.0918	J	0.199	0.0199	2
06144	Strontium	7440-24-6	12.9		0.398	0.0338	2
06145	Thallium	7440-28-0	0.240		0.199	0.0298	2
		SW-846 7471B	**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.198		0.0168	0.0104	1
Wet Chemistry		**SW-846 9045D modified**	**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045C	n.a.	7.78		0.0100	0.0100	1
	The pH was measured in water at 22.2 C. The holding time was not met.						
Wet Chemistry		**EPA 160.3 modified**	**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	2.4		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-518-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7029644
LLI Group # 1384434
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/19/2013 08:50 by SM

Submitted: 04/20/2013 09:20
Reported: 05/02/2013 14:25

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL518 SDG#: PH035-01

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.139	J	1.02	0.0266	1
11031	12378-PeCDD	40321-76-4	0.600	JBQ	5.10	0.0460	1
11031	123478-HxCDD	39227-28-6	1.39	JB	5.10	0.0356	1
11031	123678-HxCDD	57653-85-7	4.08	J	5.10	0.0360	1
11031	123789-HxCDD	19408-74-3	2.53	JB	5.10	0.0332	1
11031	1234678-HpCDD	35822-46-9	128	B	5.10	0.0557	1
11031	OCDD	3268-87-9	948	B	10.2	0.0367	1
11031	2378-TCDF	51207-31-9	1.91	C	1.02	0.0849	1
11031	12378-PeCDF	57117-41-6	5.05	JB	5.10	0.0448	1
11031	23478-PeCDF	57117-31-4	1.73	JB	5.10	0.0419	1
11031	123478-HxCDF	70648-26-9	2.24	JB	5.10	0.0369	1
11031	123678-HxCDF	57117-44-9	1.23	JB	5.10	0.0352	1
11031	123789-HxCDF	72918-21-9	5.10	U	5.10	0.0372	1
11031	234678-HxCDF	60851-34-5	1.12	JB	5.10	0.0361	1
11031	1234678-HpCDF	67562-39-4	21.1	B	5.10	0.0295	1
11031	1234789-HpCDF	55673-89-7	1.36	JB	5.10	0.0354	1
11031	OCDF	39001-02-0	70.0	B	10.2	0.0239	1
Toxic Equivalents	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	4.07				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	82	25 - 164
13C12-12378-PeCDD	81	25 - 181
13C12-123478-HxCDD	83	32 - 141
13C12-123678-HxCDD	84	28 - 130
13C12-123789-HxCDD	89	28 - 130
13C12-1234678-HpCDD	83	23 - 140
13C12-OCDD	80	17 - 157
13C12-2378-TCDF	74	24 - 169
13C12-12378-PeCDF	75	24 - 185
13C12-23478-PeCDF	76	21 - 178
13C12-123478-HxCDF	83	26 - 152
13C12-123678-HxCDF	83	26 - 123
13C12-234678-HxCDF	81	28 - 136
13C12-123789-HxCDF	88	29 - 147
13C12-1234678-HpCDF	85	28 - 143
13C12-1234789-HpCDF	80	26 - 138
13C12-OCDF	79	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-518-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7029644
LLI Group # 1384434
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/19/2013 08:50 by SM

Submitted: 04/20/2013 09:20
Reported: 05/02/2013 14:25

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL518 SDG#: PH035-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-518-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7029644
LLI Group # 1384434
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/19/2013 08:50 by SM

Submitted: 04/20/2013 09:20
Reported: 05/02/2013 14:25

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL518 SDG#: PH035-01

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13115SLD026	04/30/2013 10:51	Mark A Clark	10
10811	BNA Soil Microwave SIM	SW-846 3546	1	13115SLD026	04/25/2013 15:45	Nicholas W Shroyer	1
10592	19a PCBs and PCTs 8082A	SW-846 8082A	1	131160002A	04/29/2013 19:35	Monica M Souders	5
10497	PCB Microwave Soil Extraction	SW-846 3546	2	131160002A	04/26/2013 22:15	Karen L Beyer	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	131140009A	04/26/2013 09:09	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	131140009A	04/25/2013 02:00	Sherry L Morrow	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13114001	04/26/2013 00:44	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13114001	04/24/2013 13:30	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010C	1	131150637001	04/28/2013 19:38	Tara L Snyder	1
06944	Antimony	SW-846 6010C	1	131150637001	04/28/2013 19:38	Tara L Snyder	1
06935	Arsenic	SW-846 6010C	1	131150637001	04/28/2013 19:38	Tara L Snyder	1
06946	Barium	SW-846 6010C	1	131150637001	04/28/2013 19:38	Tara L Snyder	1
06947	Beryllium	SW-846 6010C	1	131150637001	04/28/2013 19:38	Tara L Snyder	1
07914	Boron	SW-846 6010C	1	131150637001	04/28/2013 19:38	Tara L Snyder	1
06949	Cadmium	SW-846 6010C	1	131150637001	04/28/2013 19:38	Tara L Snyder	1
01650	Calcium	SW-846 6010C	1	131150637001	04/28/2013 19:38	Tara L Snyder	1
06951	Chromium	SW-846 6010C	1	131150637001	04/28/2013 19:38	Tara L Snyder	1
06952	Cobalt	SW-846 6010C	1	131150637001	04/28/2013 19:38	Tara L Snyder	1
06953	Copper	SW-846 6010C	1	131150637001	04/28/2013 19:38	Tara L Snyder	1
01654	Iron	SW-846 6010C	1	131150637001	04/29/2013 21:41	Katlin N Cataldi	2
06955	Lead	SW-846 6010C	1	131150637001	04/28/2013 19:38	Tara L Snyder	1
01656	Lithium	SW-846 6010C	1	131150637001	04/28/2013 19:38	Tara L Snyder	1
01657	Magnesium	SW-846 6010C	1	131150637001	04/28/2013 19:38	Tara L Snyder	1
06958	Manganese	SW-846 6010C	1	131150637001	04/28/2013 19:38	Tara L Snyder	1
06960	Molybdenum	SW-846 6010C	1	131150637001	04/28/2013 19:38	Tara L Snyder	1
06961	Nickel	SW-846 6010C	1	131150637001	04/28/2013 19:38	Tara L Snyder	1
10145	Phosphorus	SW-846 6010C	1	131150637001	04/28/2013 19:38	Tara L Snyder	1
01662	Potassium	SW-846 6010C	1	131150637001	04/28/2013 19:38	Tara L Snyder	1
01667	Sodium	SW-846 6010C	1	131150637001	04/28/2013 19:38	Tara L Snyder	1
06969	Tin	SW-846 6010C	1	131150637001	04/28/2013 19:38	Tara L Snyder	1
06970	Titanium	SW-846 6010C	1	131150637001	04/28/2013 19:38	Tara L Snyder	1
06971	Vanadium	SW-846 6010C	1	131150637001	04/28/2013 19:38	Tara L Snyder	1
06972	Zinc	SW-846 6010C	1	131150637001	04/28/2013 19:38	Tara L Snyder	1
10146	Zirconium	SW-846 6010C	1	131150637001	04/28/2013 19:38	Tara L Snyder	1
06141	Selenium	SW-846 6020A	1	131150637001B	04/29/2013 09:18	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	131150637001A	04/29/2013 09:18	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	131150637001A	04/29/2013 09:18	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-518-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7029644
LLI Group # 1384434
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/19/2013 08:50 by SM

Submitted: 04/20/2013 09:20
Reported: 05/02/2013 14:25

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL518 SDG#: PH035-01

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06145	Thallium	SW-846 6020A	1	131150637001A	04/29/2013 09:18	Choon Y Tian	2
00159	3a Mercury 7471A	SW-846 7471B	1	131150638001	04/26/2013 08:48	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	131150637001	04/25/2013 22:32	Annamaria Stipkovits	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	131150638001	04/26/2013 03:00	Annamaria Stipkovits	1
00394	15a pH by 9045C	SW-846 9045D modified	1	13112039401A	04/22/2013 21:40	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13112162401B	04/23/2013 22:37	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-520-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7029645
LLI Group # 1384434
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/19/2013 09:50 by SM

Submitted: 04/20/2013 09:20
Reported: 05/02/2013 14:25

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL520 SDG#: PH035-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.68	1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.34	1
12969	Anthracene	120-12-7	1.7	U	1.7	0.34	1
12969	Benzo(a)anthracene	56-55-3	1.7	U	1.7	0.68	1
12969	Benzo(a)pyrene	50-32-8	1.1	J	1.7	0.68	1
12969	Benzo(b)fluoranthene	205-99-2	2.4		1.7	0.68	1
12969	Benzo(e)pyrene	192-97-2	17	U	17	3.4	1
12969	Benzo(g,h,i)perylene	191-24-2	1.1	J	1.7	0.68	1
12969	Benzo(k)fluoranthene	207-08-9	7.6		1.7	0.68	1
12969	Butylbenzylphthalate	85-68-7	14	J	18	6.1	1
12969	Di-n-butylphthalate	84-74-2	18	U	18	6.1	1
12969	Chrysene	218-01-9	1.9		1.7	0.34	1
12969	Dibenz(a,h)anthracene	53-70-3	1.7	U	1.7	0.68	1
12969	Diethylphthalate	84-66-2	18	U	18	6.1	1
12969	Dimethylphthalate	131-11-3	18	U	18	6.1	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	10	J	18	6.1	1
12969	Fluoranthene	206-44-0	1.6	J	1.7	0.68	1
12969	Fluorene	86-73-7	1.7	U	1.7	0.68	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	0.86	J	1.7	0.68	1
12969	1-Methylnaphthalene	90-12-0	1.7	U	1.7	0.68	1
12969	2-Methylnaphthalene	91-57-6	1.7	U	1.7	0.68	1
12969	Naphthalene	91-20-3	0.69	J	1.7	0.68	1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.68	1
12969	Di-n-octylphthalate	117-84-0	18	U	18	6.1	1
12969	Phenanthrene	85-01-8	0.91	J	1.7	0.68	1
12969	Pyrene	129-00-0	1.6	J	1.7	0.68	1
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
10592	Aroclor 5432	63496-31-1	33	U	33	10	1
10592	Aroclor 5442	12642-23-8	33	U	33	10	1
10592	Aroclor 5460	11126-42-4	24	J	33	10	1
10592	PCB-1016	12674-11-2	17	U	17	3.3	1
10592	PCB-1221	11104-28-2	17	U	17	5.1	1
10592	PCB-1232	11141-16-5	17	U	17	4.1	1
10592	PCB-1242	53469-21-9	17	U	17	3.3	1
10592	PCB-1248	12672-29-6	17	U	17	3.3	1
10592	PCB-1254	11097-69-1	17	U	17	4.4	1
10592	PCB-1260	11096-82-5	5.0	J	17	3.9	1
10592	PCB-1262	37324-23-5	17	U	17	3.3	1
10592	PCB-1268	11100-14-4	17	U	17	3.3	1
	Project defined QC acceptance limits are not met. All QC is compliant with the laboratory statistically generated limits.						
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.1	U	5.1	2.0	1
12952	EFH (C15-C20)	n.a.	5.1	U	5.1	2.0	1
12952	EFH (C21-C30)	n.a.	10		5.1	2.0	1
12952	EFH (C30-C40)	n.a.	21		10	4.1	1
12952	EFH (C8-C11)	n.a.	5.1	U	5.1	2.0	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-520-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7029645
LLI Group # 1384434
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/19/2013 09:50 by SM

Submitted: 04/20/2013 09:20
Reported: 05/02/2013 14:25

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL520 SDG#: PH035-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
	The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.						
Metals		**SW-846 6010C**	**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	12,700		40.0	7.71	1
06944	Antimony	7440-36-0	4.00	U	4.00	0.500	1
06935	Arsenic	7440-38-2	4.78		4.00	0.330	1
06946	Barium	7440-39-3	80.7		1.00	0.0330	1
06947	Beryllium	7440-41-7	0.522	J	1.00	0.0670	1
07914	Boron	7440-42-8	4.32	J	10.0	0.830	1
06949	Cadmium	7440-43-9	0.128	J	1.00	0.0330	1
01650	Calcium	7440-70-2	3,860		20.0	4.02	1
06951	Chromium	7440-47-3	19.9		3.00	0.0880	1
06952	Cobalt	7440-48-4	5.01		1.00	0.0900	1
06953	Copper	7440-50-8	14.0		2.00	0.180	1
01654	Iron	7439-89-6	22,500		40.0	3.80	1
06955	Lead	7439-92-1	13.5		3.00	0.470	1
01656	Lithium	7439-93-2	24.9		4.0	0.55	1
01657	Magnesium	7439-95-4	5,270		10.0	1.73	1
06958	Manganese	7439-96-5	290		1.00	0.0830	1
06960	Molybdenum	7439-98-7	0.297	J	2.00	0.170	1
06961	Nickel	7440-02-0	11.1		2.00	0.110	1
10145	Phosphorus	7723-14-0	426		10.0	0.510	1
01662	Potassium	7440-09-7	4,220		100	13.5	1
01667	Sodium	7440-23-5	63.2	J	100	16.7	1
06969	Tin	7440-31-5	3.13	J	10.0	0.220	1
06970	Titanium	7440-32-6	1,150		1.00	0.170	1
06971	Vanadium	7440-62-2	38.3		1.00	0.110	1
06972	Zinc	7440-66-6	60.6		4.00	0.200	1
10146	Zirconium	7440-67-7	2.43	J	5.00	0.830	1
		SW-846 6020A	**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.400	U	0.400	0.100	2
06142	Silver	7440-22-4	0.0306	J	0.200	0.0200	2
06144	Strontium	7440-24-6	14.3		0.400	0.0340	2
06145	Thallium	7440-28-0	0.205		0.200	0.0300	2
		SW-846 7471B	**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0237		0.0162	0.0101	1
Wet Chemistry		**SW-846 9045D modified**	**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045C	n.a.	7.81		0.0100	0.0100	1
	The pH was measured in water at 21.8 C. The holding time was not met.						
Wet Chemistry		**EPA 160.3 modified**	**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	2.0		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-520-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7029645
LLI Group # 1384434
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/19/2013 09:50 by SM

Submitted: 04/20/2013 09:20
Reported: 05/02/2013 14:25

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL520 SDG#: PH035-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0444	JQ	1.01	0.0266	1
11031	12378-PeCDD	40321-76-4	0.174	JBQ	5.04	0.0272	1
11031	123478-HxCDD	39227-28-6	0.209	JB	5.04	0.0295	1
11031	123678-HxCDD	57653-85-7	0.770	J	5.04	0.0292	1
11031	123789-HxCDD	19408-74-3	0.479	JB	5.04	0.0261	1
11031	1234678-HpCDD	35822-46-9	18.9	B	5.04	0.0335	1
11031	OCDD	3268-87-9	150	B	10.1	0.0264	1
11031	2378-TCDF	51207-31-9	0.244	JQ	1.01	0.0435	1
11031	12378-PeCDF	57117-41-6	0.693	JB	5.04	0.0229	1
11031	23478-PeCDF	57117-31-4	0.497	JB	5.04	0.0226	1
11031	123478-HxCDF	70648-26-9	0.327	JB	5.04	0.0268	1
11031	123678-HxCDF	57117-44-9	0.270	JB	5.04	0.0242	1
11031	123789-HxCDF	72918-21-9	5.04	U	5.04	0.0262	1
11031	234678-HxCDF	60851-34-5	0.234	JB	5.04	0.0237	1
11031	1234678-HpCDF	67562-39-4	2.42	JB	5.04	0.0219	1
11031	1234789-HpCDF	55673-89-7	0.219	JB	5.04	0.0319	1
11031	OCDF	39001-02-0	5.85	JB	10.1	0.0236	1
Toxic Equivalents	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.661				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	74	25 - 164
13C12-12378-PeCDD	78	25 - 181
13C12-123478-HxCDD	80	32 - 141
13C12-123678-HxCDD	84	28 - 130
13C12-123789-HxCDD	88	28 - 130
13C12-1234678-HpCDD	81	23 - 140
13C12-OCDD	78	17 - 157
13C12-2378-TCDF	66	24 - 169
13C12-12378-PeCDF	74	24 - 185
13C12-23478-PeCDF	71	21 - 178
13C12-123478-HxCDF	78	26 - 152
13C12-123678-HxCDF	82	26 - 123
13C12-234678-HxCDF	78	28 - 136
13C12-123789-HxCDF	78	29 - 147
13C12-1234678-HpCDF	93	28 - 143
13C12-1234789-HpCDF	72	26 - 138
13C12-OCDF	69	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration

*=This limit was used in the evaluation of the final result

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Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: SL-520-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7029645
LLI Group # 1384434
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/19/2013 09:50 by SM

Submitted: 04/20/2013 09:20
Reported: 05/02/2013 14:25

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL520 SDG#: PH035-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

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2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Analysis Report

Sample Description: SL-520-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7029645
LLI Group # 1384434
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/19/2013 09:50 by SM

Submitted: 04/20/2013 09:20
Reported: 05/02/2013 14:25

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL520 SDG#: PH035-02

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13115SLD026	04/30/2013 11:22	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	13115SLD026	04/25/2013 15:45	Nicholas W Shroyer	1
10592	19a PCBs and PCTs 8082A	SW-846 8082A	1	131160002A	04/27/2013 04:34	Monica M Souders	1
10497	PCB Microwave Soil Extraction	SW-846 3546	2	131160002A	04/26/2013 22:15	Karen L Beyer	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	131140009A	04/26/2013 07:04	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	131140009A	04/25/2013 02:00	Sherry L Morrow	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13114001	04/26/2013 01:40	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13114001	04/24/2013 13:30	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010C	1	131150637001	04/28/2013 19:42	Tara L Snyder	1
06944	Antimony	SW-846 6010C	1	131150637001	04/28/2013 19:42	Tara L Snyder	1
06935	Arsenic	SW-846 6010C	1	131150637001	04/28/2013 19:42	Tara L Snyder	1
06946	Barium	SW-846 6010C	1	131150637001	04/28/2013 19:42	Tara L Snyder	1
06947	Beryllium	SW-846 6010C	1	131150637001	04/28/2013 19:42	Tara L Snyder	1
07914	Boron	SW-846 6010C	1	131150637001	04/28/2013 19:42	Tara L Snyder	1
06949	Cadmium	SW-846 6010C	1	131150637001	04/28/2013 19:42	Tara L Snyder	1
01650	Calcium	SW-846 6010C	1	131150637001	04/28/2013 19:42	Tara L Snyder	1
06951	Chromium	SW-846 6010C	1	131150637001	04/28/2013 19:42	Tara L Snyder	1
06952	Cobalt	SW-846 6010C	1	131150637001	04/28/2013 19:42	Tara L Snyder	1
06953	Copper	SW-846 6010C	1	131150637001	04/28/2013 19:42	Tara L Snyder	1
01654	Iron	SW-846 6010C	1	131150637001	04/28/2013 19:42	Tara L Snyder	1
06955	Lead	SW-846 6010C	1	131150637001	04/28/2013 19:42	Tara L Snyder	1
01656	Lithium	SW-846 6010C	1	131150637001	04/28/2013 19:42	Tara L Snyder	1
01657	Magnesium	SW-846 6010C	1	131150637001	04/28/2013 19:42	Tara L Snyder	1
06958	Manganese	SW-846 6010C	1	131150637001	04/28/2013 19:42	Tara L Snyder	1
06960	Molybdenum	SW-846 6010C	1	131150637001	04/28/2013 19:42	Tara L Snyder	1
06961	Nickel	SW-846 6010C	1	131150637001	04/28/2013 19:42	Tara L Snyder	1
10145	Phosphorus	SW-846 6010C	1	131150637001	04/28/2013 19:42	Tara L Snyder	1
01662	Potassium	SW-846 6010C	1	131150637001	04/28/2013 19:42	Tara L Snyder	1
01667	Sodium	SW-846 6010C	1	131150637001	04/28/2013 19:42	Tara L Snyder	1
06969	Tin	SW-846 6010C	1	131150637001	04/28/2013 19:42	Tara L Snyder	1
06970	Titanium	SW-846 6010C	1	131150637001	04/28/2013 19:42	Tara L Snyder	1
06971	Vanadium	SW-846 6010C	1	131150637001	04/28/2013 19:42	Tara L Snyder	1
06972	Zinc	SW-846 6010C	1	131150637001	04/28/2013 19:42	Tara L Snyder	1
10146	Zirconium	SW-846 6010C	1	131150637001	04/28/2013 19:42	Tara L Snyder	1
06141	Selenium	SW-846 6020A	1	131150637001B	04/29/2013 09:20	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	131150637001A	04/29/2013 09:20	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	131150637001A	04/29/2013 09:20	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-520-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7029645
LLI Group # 1384434
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/19/2013 09:50 by SM

Submitted: 04/20/2013 09:20
Reported: 05/02/2013 14:25

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL520 SDG#: PH035-02

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06145	Thallium	SW-846 6020A	1	131150637001A	04/29/2013 09:20	Choon Y Tian	2
00159	3a Mercury 7471A	SW-846 7471B	1	131150638001	04/26/2013 08:51	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	131150637001	04/25/2013 22:32	Annamaria Stipkovits	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	131150638001	04/26/2013 03:00	Annamaria Stipkovits	1
00394	15a pH by 9045C	SW-846 9045D modified	1	13112039401A	04/22/2013 21:40	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13112162401B	04/23/2013 22:37	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-511-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7029646
LLI Group # 1384434
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/19/2013 11:05 by SM

Submitted: 04/20/2013 09:20
Reported: 05/02/2013 14:25

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL511 SDG#: PH035-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.70	1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.35	1
12969	Anthracene	120-12-7	0.73	J	1.7	0.35	1
12969	Benzo(a)anthracene	56-55-3	3.3		1.7	0.70	1
12969	Benzo(a)pyrene	50-32-8	3.5		1.7	0.70	1
12969	Benzo(b)fluoranthene	205-99-2	9.3		1.7	0.70	1
12969	Benzo(e)pyrene	192-97-2	4.2	J	18	3.5	1
12969	Benzo(g,h,i)perylene	191-24-2	3.0		1.7	0.70	1
12969	Benzo(k)fluoranthene	207-08-9	19		1.7	0.70	1
12969	Butylbenzylphthalate	85-68-7	19	U	19	6.3	1
12969	Di-n-butylphthalate	84-74-2	19	U	19	6.3	1
12969	Chrysene	218-01-9	6.7		1.7	0.35	1
12969	Dibenz(a,h)anthracene	53-70-3	1.2	J	1.7	0.70	1
12969	Diethylphthalate	84-66-2	19	U	19	6.3	1
12969	Dimethylphthalate	131-11-3	19	U	19	6.3	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	31		19	6.3	1
12969	Fluoranthene	206-44-0	7.6		1.7	0.70	1
12969	Fluorene	86-73-7	0.98	J	1.7	0.70	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.9		1.7	0.70	1
12969	1-Methylnaphthalene	90-12-0	1.6	J	1.7	0.70	1
12969	2-Methylnaphthalene	91-57-6	2.2		1.7	0.70	1
12969	Naphthalene	91-20-3	3.9		1.7	0.70	1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.70	1
12969	Di-n-octylphthalate	117-84-0	19	U	19	6.3	1
12969	Phenanthrene	85-01-8	5.4		1.7	0.70	1
12969	Pyrene	129-00-0	7.3		1.7	0.70	1
Pesticides/PCBs	**SW-846 8081B**		**ug/kg**		**ug/kg**	**ug/kg**	
10590	Aldrin	309-00-2	0.87	U	0.87	0.18	1
10590	Alpha BHC	319-84-6	0.87	U	0.87	0.18	1
10590	Beta BHC	319-85-7	2.0	U	2.0	1.0	1
10590	Gamma BHC - Lindane	58-89-9	0.87	U	0.87	0.18	1
10590	Chlordane	57-74-9	18	U	18	8.2	1
10590	p,p-DDD	72-54-8	1.8	U	1.8	0.35	1
10590	p,p-DDE	72-55-9	2.7		1.8	0.35	1
10590	p,p-DDT	50-29-3	6.5		1.8	0.37	1
10590	Delta BHC	319-86-8	0.87	U	0.87	0.47	1
10590	Dieldrin	60-57-1	1.8	U	1.8	0.60	1
10590	Endosulfan I	959-98-8	0.87	U	0.87	0.23	1
10590	Endosulfan II	33213-65-9	1.8	U	1.8	0.35	1
10590	Endosulfan Sulfate	1031-07-8	1.8	U	1.8	0.35	1
10590	Endrin	72-20-8	1.8	U	1.8	0.35	1
10590	Endrin Aldehyde	7421-93-4	1.8	U	1.8	0.35	1
10590	Endrin Ketone	53494-70-5	1.9	U	1.9	0.63	1
10590	Heptachlor	76-44-8	0.18	J	0.87	0.18	1
10590	Heptachlor Epoxide	1024-57-3	0.87	U	0.87	0.54	1
10590	Methoxychlor	72-43-5	7.0	U	7.0	1.8	1
10590	Mirex	2385-85-5	1.8	U	1.8	0.37	1
10590	Toxaphene	8001-35-2	35	U	35	15	1

The response for a target analyte(s) in the continuing calibration verification standard is outside the QC acceptance

*=This limit was used in the evaluation of the final result

Sample Description: SL-511-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7029646
LLI Group # 1384434
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/19/2013 11:05 by SM

Submitted: 04/20/2013 09:20
Reported: 05/02/2013 14:25

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL511 SDG#: PH035-03

limits. The following corrective action was taken:
The analysis was repeated and the continuing calibration verification standard bracketing the sample on the second trial is also outside the acceptance limits. This effect is attributed to the sample matrix and the data is reported.
Reporting limits were raised due to interference from the sample matrix.

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
10592	Aroclor 5432	63496-31-1	34	U	34	10	1
10592	Aroclor 5442	12642-23-8	34	U	34	10	1
10592	Aroclor 5460	11126-42-4	34	J	34	10	1
10592	PCB-1016	12674-11-2	18	U	18	3.4	1
10592	PCB-1221	11104-28-2	18	U	18	5.3	1
10592	PCB-1232	11141-16-5	18	U	18	4.3	1
10592	PCB-1242	53469-21-9	18	U	18	3.4	1
10592	PCB-1248	12672-29-6	18	U	18	3.4	1
10592	PCB-1254	11097-69-1	13	J	18	4.6	1
10592	PCB-1260	11096-82-5	7.8	J	18	4.1	1
10592	PCB-1262	37324-23-5	18	U	18	3.4	1
10592	PCB-1268	11100-14-4	18	U	18	3.4	1

Project defined QC acceptance limits are not met. All QC is compliant with the laboratory statistically generated limits.

GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.2	U	5.2	2.1	1
12952	EFH (C15-C20)	n.a.	3.5	J	5.2	2.1	1
12952	EFH (C21-C30)	n.a.	28		5.2	2.1	1
12952	EFH (C30-C40)	n.a.	66		10	4.2	1
12952	EFH (C8-C11)	n.a.	5.2	U	5.2	2.1	1

The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.

Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	12,000		40.6	7.83	1
06944	Antimony	7440-36-0	0.585	J	4.06	0.508	1
06935	Arsenic	7440-38-2	4.74		4.06	0.335	1
06946	Barium	7440-39-3	72.3		1.02	0.0335	1
06947	Beryllium	7440-41-7	0.487	J	1.02	0.0680	1
07914	Boron	7440-42-8	4.33	J	10.2	0.843	1
06949	Cadmium	7440-43-9	0.336	J	1.02	0.0335	1
01650	Calcium	7440-70-2	3,940		20.3	4.08	1
06951	Chromium	7440-47-3	20.4		3.05	0.0894	1
06952	Cobalt	7440-48-4	5.18		1.02	0.0914	1
06953	Copper	7440-50-8	16.9		2.03	0.183	1
01654	Iron	7439-89-6	21,300		40.6	3.86	1
06955	Lead	7439-92-1	15.0		3.05	0.477	1
01656	Lithium	7439-93-2	21.5		4.1	0.56	1
01657	Magnesium	7439-95-4	4,700		10.2	1.76	1
06958	Manganese	7439-96-5	290		1.02	0.0843	1
06960	Molybdenum	7439-98-7	0.429	J	2.03	0.173	1
06961	Nickel	7440-02-0	11.3		2.03	0.112	1
10145	Phosphorus	7723-14-0	577		10.2	0.518	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-511-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7029646
LLI Group # 1384434
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/19/2013 11:05 by SM

Submitted: 04/20/2013 09:20
Reported: 05/02/2013 14:25

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL511 SDG#: PH035-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01662	Potassium	7440-09-7	4,240		102	13.7	1
01667	Sodium	7440-23-5	67.7	J	102	17.0	1
06969	Tin	7440-31-5	3.20	J	10.2	0.223	1
06970	Titanium	7440-32-6	1,050		1.02	0.173	1
06971	Vanadium	7440-62-2	37.3		1.02	0.112	1
06972	Zinc	7440-66-6	81.4		4.06	0.203	1
10146	Zirconium	7440-67-7	2.17	J	5.08	0.843	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.129	J	0.406	0.102	2
06142	Silver	7440-22-4	0.0715	J	0.203	0.0203	2
06144	Strontium	7440-24-6	16.7		0.406	0.0345	2
06145	Thallium	7440-28-0	0.214		0.203	0.0305	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0453		0.0166	0.0103	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045C	n.a.	7.34		0.0100	0.0100	1
	The pH was measured in water at 22.1 C. The holding time was not met.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	4.4		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-511-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7029646
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SL511 SDG#: PH035-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.279	J	1.04	0.0479	1
11031	12378-PeCDD	40321-76-4	1.94	JB	5.18	0.0624	1
11031	123478-HxCDD	39227-28-6	4.09	JB	5.18	0.0449	1
11031	123678-HxCDD	57653-85-7	16.3		5.18	0.0453	1
11031	123789-HxCDD	19408-74-3	9.77	B	5.18	0.0416	1
11031	1234678-HpCDD	35822-46-9	508	B	5.18	0.0999	1
11031	OCDD	3268-87-9	5,740	EB	10.4	0.0722	1
11031	2378-TCDF	51207-31-9	0.972	J	1.04	0.0855	1
11031	12378-PeCDF	57117-41-6	1.52	JB	5.18	0.0390	1
11031	23478-PeCDF	57117-31-4	1.77	JB	5.18	0.0387	1
11031	123478-HxCDF	70648-26-9	2.86	JB	5.18	0.0465	1
11031	123678-HxCDF	57117-44-9	1.89	JB	5.18	0.0422	1
11031	123789-HxCDF	72918-21-9	5.18	U	5.18	0.0459	1
11031	234678-HxCDF	60851-34-5	2.35	JB	5.18	0.0407	1
11031	1234678-HpCDF	67562-39-4	37.2	B	5.18	0.0396	1
11031	1234789-HpCDF	55673-89-7	3.99	JB	5.18	0.0556	1
11031	OCDF	39001-02-0	96.4	B	10.4	0.0283	1
Toxic Equivalents	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	13.9				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	76	25 - 164
13C12-12378-PeCDD	74	25 - 181
13C12-123478-HxCDD	80	32 - 141
13C12-123678-HxCDD	84	28 - 130
13C12-123789-HxCDD	87	28 - 130
13C12-1234678-HpCDD	80	23 - 140
13C12-OCDD	82	17 - 157
13C12-2378-TCDF	68	24 - 169
13C12-12378-PeCDF	72	24 - 185
13C12-23478-PeCDF	68	21 - 178
13C12-123478-HxCDF	77	26 - 152
13C12-123678-HxCDF	80	26 - 123
13C12-234678-HxCDF	78	28 - 136
13C12-123789-HxCDF	77	29 - 147
13C12-1234678-HpCDF	88	28 - 143
13C12-1234789-HpCDF	73	26 - 138
13C12-OCDF	71	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration

*=This limit was used in the evaluation of the final result

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Analysis Report

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Sample Description: SL-511-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7029646
LLI Group # 1384434
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/19/2013 11:05 by SM

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Reported: 05/02/2013 14:25

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Suite 400
Fairfax VA 22030

SL511 SDG#: PH035-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

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Analysis Report

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Suite 400
Fairfax VA 22030

SL511 SDG#: PH035-03

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13115SLD026	04/30/2013	11:54	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	13115SLD026	04/25/2013	15:45	Nicholas W Shroyer	1
10590	20a Pesticides by EPA 8081B	SW-846 8081B	1	131130011A	04/27/2013	13:45	Jamie L Brillhart	1
10592	19a PCBs and PCTs 8082A	SW-846 8082A	1	131160002A	04/27/2013	04:52	Monica M Souders	1
10497	PCB Microwave Soil Extraction	SW-846 3546	2	131160002A	04/26/2013	22:15	Karen L Beyer	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	131130011A	04/23/2013	18:10	Sally L Appleyard	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	131140009A	04/26/2013	11:13	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	131140009A	04/25/2013	02:00	Sherry L Morrow	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13114001	04/26/2013	02:37	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13114001	04/24/2013	13:30	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010C	1	131150637001	04/28/2013	19:54	Tara L Snyder	1
06944	Antimony	SW-846 6010C	1	131150637001	04/28/2013	19:54	Tara L Snyder	1
06935	Arsenic	SW-846 6010C	1	131150637001	04/28/2013	19:54	Tara L Snyder	1
06946	Barium	SW-846 6010C	1	131150637001	04/28/2013	19:54	Tara L Snyder	1
06947	Beryllium	SW-846 6010C	1	131150637001	04/28/2013	19:54	Tara L Snyder	1
07914	Boron	SW-846 6010C	1	131150637001	04/28/2013	19:54	Tara L Snyder	1
06949	Cadmium	SW-846 6010C	1	131150637001	04/28/2013	19:54	Tara L Snyder	1
01650	Calcium	SW-846 6010C	1	131150637001	04/28/2013	19:54	Tara L Snyder	1
06951	Chromium	SW-846 6010C	1	131150637001	04/28/2013	19:54	Tara L Snyder	1
06952	Cobalt	SW-846 6010C	1	131150637001	04/28/2013	19:54	Tara L Snyder	1
06953	Copper	SW-846 6010C	1	131150637001	04/28/2013	19:54	Tara L Snyder	1
01654	Iron	SW-846 6010C	1	131150637001	04/28/2013	19:54	Tara L Snyder	1
06955	Lead	SW-846 6010C	1	131150637001	04/28/2013	19:54	Tara L Snyder	1
01656	Lithium	SW-846 6010C	1	131150637001	04/28/2013	19:54	Tara L Snyder	1
01657	Magnesium	SW-846 6010C	1	131150637001	04/28/2013	19:54	Tara L Snyder	1
06958	Manganese	SW-846 6010C	1	131150637001	04/28/2013	19:54	Tara L Snyder	1
06960	Molybdenum	SW-846 6010C	1	131150637001	04/28/2013	19:54	Tara L Snyder	1
06961	Nickel	SW-846 6010C	1	131150637001	04/28/2013	19:54	Tara L Snyder	1
10145	Phosphorus	SW-846 6010C	1	131150637001	04/28/2013	19:54	Tara L Snyder	1
01662	Potassium	SW-846 6010C	1	131150637001	04/28/2013	19:54	Tara L Snyder	1
01667	Sodium	SW-846 6010C	1	131150637001	04/28/2013	19:54	Tara L Snyder	1
06969	Tin	SW-846 6010C	1	131150637001	04/28/2013	19:54	Tara L Snyder	1
06970	Titanium	SW-846 6010C	1	131150637001	04/28/2013	19:54	Tara L Snyder	1
06971	Vanadium	SW-846 6010C	1	131150637001	04/28/2013	19:54	Tara L Snyder	1
06972	Zinc	SW-846 6010C	1	131150637001	04/28/2013	19:54	Tara L Snyder	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-511-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7029646
LLI Group # 1384434
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/19/2013 11:05 by SM

Submitted: 04/20/2013 09:20
Reported: 05/02/2013 14:25

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
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SL511 SDG#: PH035-03

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
10146	Zirconium	SW-846 6010C	1	131150637001	04/28/2013	19:54	Tara L Snyder	1
06141	Selenium	SW-846 6020A	1	131150637001B	04/29/2013	09:23	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	131150637001A	04/29/2013	09:23	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	131150637001A	04/29/2013	09:23	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	131150637001A	04/29/2013	09:23	Choon Y Tian	2
00159	3a Mercury 7471A	SW-846 7471B	1	131150638001	04/26/2013	08:53	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	131150637001	04/25/2013	22:32	Annamaria Stipkovits	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	131150638001	04/26/2013	03:00	Annamaria Stipkovits	1
00394	15a pH by 9045C	SW-846 9045D modified	1	13112039401A	04/22/2013	21:40	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13112162401B	04/23/2013	22:37	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: EB-041913 Water
SSFL Phase 3 Subarea 7

LLI Sample # WW 7029647
LLI Group # 1384434
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/19/2013 13:00 by SM

Submitted: 04/20/2013 09:20
Reported: 05/02/2013 14:25

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SLE19 SDG#: PH035-04EB*

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
Pesticides/PCBs	**SW-846 8081B**		**ug/l**	**ug/l**	**ug/l**	
10589	Aldrin	309-00-2	0.0081 U	0.0081	0.0016	1
10589	Alpha BHC	319-84-6	0.0081 U	0.0081	0.0024	1
10589	Beta BHC	319-85-7	0.0081 U	0.0081	0.0027	1
10589	Gamma BHC - Lindane	58-89-9	0.0081 U	0.0081	0.0016	1
10589	Chlordane	57-74-9	0.40 U	0.40	0.13	1
10589	p,p-DDD	72-54-8	0.016 U	0.016	0.0040	1
10589	p,p-DDE	72-55-9	0.016 U	0.016	0.0040	1
10589	p,p-DDT	50-29-3	0.016 U	0.016	0.0042	1
10589	Delta BHC	319-86-8	0.0081 U	0.0081	0.0027	1
10589	Dieldrin	60-57-1	0.016 U	0.016	0.0043	1
10589	Endosulfan I	959-98-8	0.0081 U	0.0081	0.0035	1
10589	Endosulfan II	33213-65-9	0.016 U	0.016	0.012	1
10589	Endosulfan Sulfate	1031-07-8	0.016 U	0.016	0.0047	1
10589	Endrin	72-20-8	0.016 U	0.016	0.0065	1
10589	Endrin Aldehyde	7421-93-4	0.081 U	0.081	0.016	1
10589	Endrin Ketone	53494-70-5	0.016 U	0.016	0.0040	1
10589	Heptachlor	76-44-8	0.0081 U	0.0081	0.0016	1
10589	Heptachlor Epoxide	1024-57-3	0.0081 U	0.0081	0.0019	1
10589	Methoxychlor	72-43-5	0.081 U	0.081	0.024	1
10589	Mirex	2385-85-5	0.20 U	0.20	0.068	1
10589	Toxaphene	8001-35-2	2.4 U	2.4	0.81	1

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10589	22b Pesticides by EPA 8081B	SW-846 8081B	1	131120022A	04/24/2013 12:15	Jamie L Brillhart	1
11120	Pesticide Waters Update IV Ext	SW-846 3510C	1	131120022A	04/23/2013 10:00	William H Saadeh	1

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1384434
Reported: 05/02/13 at 02:25 PM

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 13115SLD026	Sample number(s): 7029644-7029646									
Acenaphthene	1.7	U	1.7	0.67	ug/kg	104		69-114		
Acenaphthylene	1.7	U	1.7	0.33	ug/kg	102		71-113		
Anthracene	1.7	U	1.7	0.33	ug/kg	101		75-116		
Benzo(a)anthracene	1.7	U	1.7	0.67	ug/kg	103		76-115		
Benzo(a)pyrene	1.7	U	1.7	0.67	ug/kg	106		76-117		
Benzo(b)fluoranthene	1.7	U	1.7	0.67	ug/kg	118		77-129		
Benzo(e)pyrene	17	U	17.	3.3	ug/kg	97		70-130		
Benzo(g,h,i)perylene	1.7	U	1.7	0.67	ug/kg	104		64-120		
Benzo(k)fluoranthene	1.7	U	1.7	0.67	ug/kg	104		71-120		
Butylbenzylphthalate	18	U	18.	6.0	ug/kg	111		65-131		
Di-n-butylphthalate	18	U	18.	6.0	ug/kg	109		67-140		
Chrysene	1.7	U	1.7	0.33	ug/kg	97		78-111		
Dibenz(a,h)anthracene	1.7	U	1.7	0.67	ug/kg	104		65-124		
Diethylphthalate	18	U	18.	6.0	ug/kg	108		68-125		
Dimethylphthalate	18	U	18.	6.0	ug/kg	103		70-130		
Bis(2-Ethylhexyl)phthalate	18	U	18.	6.0	ug/kg	108		67-143		
Fluoranthene	1.7	U	1.7	0.67	ug/kg	99		68-119		
Fluorene	1.7	U	1.7	0.67	ug/kg	103		75-123		
Indeno(1,2,3-cd)pyrene	1.7	U	1.7	0.67	ug/kg	101		66-122		
1-Methylnaphthalene	1.7	U	1.7	0.67	ug/kg	107		74-113		
2-Methylnaphthalene	1.7	U	1.7	0.67	ug/kg	106		78-121		
Naphthalene	1.7	U	1.7	0.67	ug/kg	102		64-120		
N-Nitrosodimethylamine	1.7	U	1.7	0.67	ug/kg	92		30-125		
Di-n-octylphthalate	18	U	18.	6.0	ug/kg	111		57-133		
Phenanthrene	1.7	U	1.7	0.67	ug/kg	99		72-110		
Pyrene	1.7	U	1.7	0.67	ug/kg	95		71-120		
Batch number: 131120022A	Sample number(s): 7029647									
Aldrin	0.0080	U	0.0080	0.0016	ug/l	74	88	55-126	17	30
Alpha BHC	0.0080	U	0.0080	0.0024	ug/l	82	92	63-132	11	30
Beta BHC	0.0080	U	0.0080	0.0027	ug/l	78	87	63-132	11	30
Gamma BHC - Lindane	0.0080	U	0.0080	0.0016	ug/l	83	92	68-128	10	30
Chlordane	0.40	U	0.40	0.13	ug/l					
p,p-DDD	0.016	U	0.016	0.0040	ug/l	76	89	62-143	16	30
p,p-DDE	0.016	U	0.016	0.0040	ug/l	83	93	56-137	12	30
p,p-DDT	0.016	U	0.016	0.0042	ug/l	78	92	45-134	17	30
Delta BHC	0.0080	U	0.0080	0.0027	ug/l	83	90	63-131	9	30
Dieldrin	0.016	U	0.016	0.0042	ug/l	83	92	65-135	11	30
Endosulfan I	0.0080	U	0.0080	0.0034	ug/l	81	91	48-124	11	30
Endosulfan II	0.016	U	0.016	0.012	ug/l	77	88	53-123	14	30
Endosulfan Sulfate	0.016	U	0.016	0.0046	ug/l	74	85	60-129	13	30
Endrin	0.016	U	0.016	0.0065	ug/l	81	90	43-139	11	30
Endrin Aldehyde	0.080	U	0.080	0.016	ug/l	69	78	55-123	12	20

*- Outside of specification
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(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1384434
Reported: 05/02/13 at 02:25 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Endrin Ketone	0.016	U	0.016	0.0040	ug/l	68	82	51-138	18	30
Heptachlor	0.0080	U	0.0080	0.0016	ug/l	73	85	57-126	16	30
Heptachlor Epoxide	0.0080	U	0.0080	0.0018	ug/l	79	88	65-128	11	30
Methoxychlor	0.080	U	0.080	0.024	ug/l	80	91	46-134	14	30
Mirex	0.20	U	0.20	0.068	ug/l					
Toxaphene	2.4	U	2.4	0.80	ug/l					
Batch number: 131130011A	Sample number(s): 7029646									
Aldrin	0.83	U	0.83	0.17	ug/kg	91		73-119		
Alpha BHC	0.83	U	0.83	0.17	ug/kg	98		72-126		
Beta BHC	1.9	U	1.9	0.96	ug/kg	95		76-123		
Gamma BHC - Lindane	0.83	U	0.83	0.17	ug/kg	101		72-128		
Chlordane	17	U	17.	4.0	ug/kg					
p,p-DDD	1.7	U	1.7	0.33	ug/kg	112		76-138		
p,p-DDE	1.7	U	1.7	0.33	ug/kg	103		76-126		
p,p-DDT	1.7	U	1.7	0.35	ug/kg	87		72-131		
Delta BHC	0.83	U	0.83	0.45	ug/kg	102		73-128		
Dieldrin	1.7	U	1.7	0.33	ug/kg	109		78-135		
Endosulfan I	0.83	U	0.83	0.22	ug/kg	103		62-125		
Endosulfan II	1.7	U	1.7	0.33	ug/kg	105		68-128		
Endosulfan Sulfate	1.7	U	1.7	0.33	ug/kg	102		72-138		
Endrin	1.7	U	1.7	0.33	ug/kg	91		75-130		
Endrin Aldehyde	1.7	U	1.7	0.33	ug/kg	96		55-132		
Endrin Ketone	1.8	U	1.8	0.60	ug/kg	103		74-127		
Heptachlor	0.83	U	0.83	0.17	ug/kg	91		69-125		
Heptachlor Epoxide	0.83	U	0.83	0.17	ug/kg	97		78-125		
Methoxychlor	6.7	U	6.7	1.7	ug/kg	90		59-125		
Mirex	1.7	U	1.7	0.35	ug/kg					
Toxaphene	33	U	33.	14	ug/kg					
Batch number: 131160002A	Sample number(s): 7029644-7029646									
Aroclor 5432	33	U	33.	10	ug/kg					
Aroclor 5442	33	U	33.	10	ug/kg	81	81	36-106	0	30
Aroclor 5460	33	U	33.	10	ug/kg					
PCB-1016	17	U	17.	3.3	ug/kg	99		80-120		
PCB-1221	17	U	17.	5.1	ug/kg					
PCB-1232	17	U	17.	4.1	ug/kg					
PCB-1242	17	U	17.	3.3	ug/kg					
PCB-1248	17	U	17.	3.3	ug/kg					
PCB-1254	17	U	17.	4.4	ug/kg					
PCB-1260	17	U	17.	3.9	ug/kg	103		72-120		
PCB-1262	17	U	17.	3.3	ug/kg					
PCB-1268	17	U	17.	3.3	ug/kg					
Batch number: 131140009A	Sample number(s): 7029644-7029646									
EFH (C12-C14)	5.0	U	5.0	2.0	mg/kg	90		70-123		
EFH (C15-C20)	5.0	U	5.0	2.0	mg/kg	94		75-128		
EFH (C21-C30)	5.0	U	5.0	2.0	mg/kg	95		64-134		
EFH (C30-C40)	10	U	10.	4.0	mg/kg	55*		65-128		
EFH (C8-C11)	5.0	U	5.0	2.0	mg/kg	74		49-107		
Batch number: 131150637001	Sample number(s): 7029644-7029646									
Aluminum	10.3	J	40.0	7.71	mg/kg	105		80-120		
Antimony	4.00	U	4.00	0.500	mg/kg	105		80-120		
Arsenic	4.00	U	4.00	0.330	mg/kg	104		80-120		
Barium	1.00	U	1.00	0.0330	mg/kg	102		80-120		

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(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1384434
Reported: 05/02/13 at 02:25 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Beryllium	1.00	U	1.00	0.0670	mg/kg	103		80-120		
Boron	1.62	J	10.0	0.830	mg/kg	100		80-120		
Cadmium	1.00	U	1.00	0.0330	mg/kg	102		80-120		
Calcium	25.6		20.0	4.02	mg/kg	107		80-120		
Chromium	3.00	U	3.00	0.0880	mg/kg	103		80-120		
Cobalt	1.00	U	1.00	0.0900	mg/kg	103		80-120		
Copper	2.00	U	2.00	0.180	mg/kg	106		80-120		
Iron	40.0	U	40.0	3.80	mg/kg	101		80-120		
Lead	3.00	U	3.00	0.470	mg/kg	104		80-120		
Lithium	4.0	U	4.0	0.55	mg/kg	103		80-120		
Magnesium	10.0	U	10.0	1.73	mg/kg	100		80-120		
Manganese	1.00	U	1.00	0.0830	mg/kg	104		80-120		
Molybdenum	2.00	U	2.00	0.170	mg/kg	101		80-120		
Nickel	2.00	U	2.00	0.110	mg/kg	106		80-120		
Phosphorus	1.45	J	10.0	0.510	mg/kg	106		80-120		
Potassium	100 U		100.	13.5	mg/kg	101		80-120		
Sodium	100 U		100.	16.7	mg/kg	100		80-120		
Tin	1.45	J	10.0	0.220	mg/kg	103		80-120		
Titanium	1.00	U	1.00	0.170	mg/kg	103		80-120		
Vanadium	1.00	U	1.00	0.110	mg/kg	102		80-120		
Zinc	4.00	U	4.00	0.200	mg/kg	105		80-120		
Zirconium	5.00	U	5.00	0.830	mg/kg	102		80-120		
Batch number: 131150637001A	Sample number(s): 7029644-7029646									
Silver	0.200	U	0.200	0.0200	mg/kg	100		80-120		
Strontium	0.179	J	0.400	0.0340	mg/kg	98		80-120		
Thallium	0.200	U	0.200	0.0300	mg/kg	111		80-120		
Batch number: 131150637001B	Sample number(s): 7029644-7029646									
Selenium	0.400	U	0.400	0.100	mg/kg	98		80-120		
Batch number: 131150638001	Sample number(s): 7029644-7029646									
3a Mercury 7471A	0.0167	U	0.0167	0.0103	mg/kg	111		85-120		
Batch number: 13112039401A	Sample number(s): 7029644-7029646									
15a pH by 9045C						100		95-105		
Batch number: 13112162401B	Sample number(s): 7029644-7029646									
14a Moisture Content by 160.3						100		80-120		

Analysis Name	Blank Result		Blank MRL**	Blank EDL	Report Units	OPR %REC	OPRD %REC	OPR/OPRD Limits	RPD	RPD Max
Batch number: 13114001	Sample number(s): 7029644-7029646									
2378-TCDD	1.00	U	1.00	0.0193	ng/kg	90		67-158		
12378-PeCDD	0.0221	J	5.00	0.0168	ng/kg	92		70-142		
123478-HxCDD	0.0132	J	5.00	0.0107	ng/kg	99		70-164		
123678-HxCDD	5.00	U	5.00	0.0113	ng/kg	96		76-134		
123789-HxCDD	0.0184	J	5.00	0.0111	ng/kg	98		64-162		
1234678-HpCDD	0.0680	J	5.00	0.0123	ng/kg	95		70-140		
OCDD	0.148	J	10.0	0.0153	ng/kg	96		78-144		
2378-TCDF	1.00	U	1.00	0.0176	ng/kg	94		75-158		
12378-PeCDF	0.0555	J	5.00	0.00908	ng/kg	96		80-134		

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1384434
Reported: 05/02/13 at 02:25 PM

Analysis Name	Blank Result	Blank MRL**	Blank EDL	Report Units	OPR %REC	OPRD %REC	OPR/OPRD Limits	RPD	RPD Max
23478-PeCDF	0.0295 J	5.00	0.00879	ng/kg	96		68-160		
123478-HxCDF	0.0510 J	5.00	0.0109	ng/kg	99		72-134		
123678-HxCDF	0.0214 J	5.00	0.0102	ng/kg	97		84-130		
123789-HxCDF	0.0300 J	5.00	0.0125	ng/kg	99		78-130		
234678-HxCDF	0.0286 J	5.00	0.0105	ng/kg	98		70-156		
1234678-HpCDF	0.0378 J	5.00	0.00650	ng/kg	97		82-122		
1234789-HpCDF	0.0182 J	5.00	0.00892	ng/kg	98		78-138		
OCDF	0.0895 J	10.0	0.0198	ng/kg	96		63-170		
TEQ WHO 2005 - EDLx0.0	0.00357			ng/kg					

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 13115SLD026	Sample number(s): 7029644-7029646 UNSPK: P031213								
Acenaphthene	100	103	48-127	3	30				
Acenaphthylene	95	98	49-121	3	30				
Anthracene	95	99	52-126	4	30				
Benzo(a)anthracene	96	102	32-135	5	30				
Benzo(a)pyrene	100	105	36-138	5	30				
Benzo(b)fluoranthene	107	113	26-142	5	30				
Benzo(e)pyrene	97	102	70-130	5	30				
Benzo(g,h,i)perylene	63	73	33-141	13	30				
Benzo(k)fluoranthene	87	87	47-129	0	30				
Butylbenzylphthalate	130	121	59-153	7	30				
Di-n-butylphthalate	105	109	62-154	4	30				
Chrysene	92	97	29-148	5	30				
Dibenz(a,h)anthracene	83	91	34-125	9	30				
Diethylphthalate	96	101	76-127	5	30				
Dimethylphthalate	93	96	62-136	2	30				
Bis(2-Ethylhexyl)phthalate	111	125	39-167	10	30				
Fluoranthene	91	95	47-135	4	30				
Fluorene	98	99	50-129	2	30				
Indeno(1,2,3-cd)pyrene	72	81	17-136	10	30				
1-Methylnaphthalene	104	104	50-131	0	30				
2-Methylnaphthalene	105	106	28-144	0	30				
Naphthalene	102	101	31-148	1	30				
N-Nitrosodimethylamine	131*	135*	48-113	3	30				
Di-n-octylphthalate	138	129	52-162	6	30				
Phenanthrene	97	96	29-142	0	30				
Pyrene	88	93	26-143	5	30				
Batch number: 131130011A	Sample number(s): 7029646 UNSPK: P031213								
Aldrin	84	81	16-126	3	50				
Alpha BHC	79	83	14-140	5	50				
Beta BHC	77	82	10-173	6	50				

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1384434
Reported: 05/02/13 at 02:25 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Gamma BHC - Lindane	80	86	30-137	8	50				
p,p-DDD	93	91	43-149	2	50				
p,p-DDE	88	85	18-161	3	50				
p,p-DDT	92	105	12-193	12	50				
Delta BHC	90	92	13-153	2	50				
Dieldrin	98	88	19-154	11	50				
Endosulfan I	88	80	16-137	9	50				
Endosulfan II	80	81	10-156	1	50				
Endosulfan Sulfate	86	84	10-181	2	50				
Endrin	88	87	30-152	2	50				
Endrin Aldehyde	92	87	10-152	6	35				
Endrin Ketone	57	54	10-160	5	50				
Heptachlor	83	81	16-152	1	50				
Heptachlor Epoxide	87	93	17-167	7	50				
Methoxychlor	79	87	34-168	10	50				
Batch number: 131160002A	Sample number(s): 7029644-7029646 UNSPK: P031213								
PCB-1016	108	102	16-146	6	50				
PCB-1260	114	102	40-134	11	50				
Batch number: 131140009A	Sample number(s): 7029644-7029646 UNSPK: P031213								
EFH (C12-C14)	99	91	49-123	8	20				
EFH (C15-C20)	124*	137*	49-123	10	20				
EFH (C21-C30)	127*	182*	49-123	18	20				
EFH (C30-C40)	203 (2)	296 (2)	49-123	14	20				
EFH (C8-C11)	106	95	49-123	11	20				
Batch number: 131150637001	Sample number(s): 7029644-7029646 UNSPK: P031213 BKG: P031213								
Aluminum	2585 (2)	2282 (2)	75-125	3	20	13,100	14,600	11	20
Antimony	67*	64*	75-125	4	20	3.96 U	0.540 J	200* (1)	20
Arsenic	95	105	75-125	7	20	4.95	5.12	3 (1)	20
Barium	104	106	75-125	1	20	70.7	77.9	10	20
Beryllium	106	104	75-125	1	20	0.522 J	0.579 J	10 (1)	20
Boron	101	100	75-125	1	20	5.72 J	7.99 J	33* (1)	20
Cadmium	97	98	75-125	1	20	0.116 J	0.138 J	17 (1)	20
Calcium	140 (2)	198 (2)	75-125	7	20	2,840	3,060	8	20
Chromium	107	104	75-125	2	20	19.7	20.4	3	20
Cobalt	100	100	75-125	0	20	4.62	5.28	13 (1)	20
Copper	111	110	75-125	0	20	12.4	13.2	7	20
Iron	3126 (2)	2463 (2)	75-125	3	20	21,800	23,500	7	20
Lead	104	185*	75-125	24*	20	28.1	43.6	43*	20
Lithium	103	101	75-125	1	20	25.6	25.7	0	20
Magnesium	249 (2)	221 (2)	75-125	1	20	5,100	5,180	2	20
Manganese	145 (2)	132 (2)	75-125	2	20	266	298	11	20
Molybdenum	99	99	75-125	0	20	0.291 J	0.314 J	8 (1)	20
Nickel	103	101	75-125	1	20	10.5	11.2	6	20
Phosphorus	78 (2)	113 (2)	75-125	7	20	420	439	4	20
Potassium	140*	137*	75-125	1	20	3,350	3,630	8	20
Sodium	99	98	75-125	1	20	73.1 J	77.5 J	6 (1)	20
Tin	94	95	75-125	1	20	3.02 J	3.24 J	7 (1)	20

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1384434
Reported: 05/02/13 at 02:25 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Titanium	359 (2)	334 (2)	75-125	2	20	1,120	1,230	9	20
Vanadium	114	112	75-125	1	20	35.4	39.1	10	20
Zinc	106	106	75-125	0	20	60.1	62.1	3	20
Zirconium	99	98	75-125	1	20	2.43 J	2.76 J	13 (1)	20
Batch number: 131150637001A	Sample number(s): 7029644-7029646 UNSPK: P031213 BKG: P031213								
Silver	96	98	75-125	2	20	0.0269 J	0.0419 J	44* (1)	20
Strontium	69*	75	75-125	3	20	12.7	13.0	2	20
Thallium	87	90	75-125	2	20	0.272	0.264	3 (1)	20
Batch number: 131150637001B	Sample number(s): 7029644-7029646 UNSPK: P031213 BKG: P031213								
Selenium	95	90	75-125	5	20	0.396 U	0.396 U	0 (1)	20
Batch number: 131150638001	Sample number(s): 7029644-7029646 UNSPK: P031213 BKG: P031213								
3a Mercury 7471A	105	104	65-135	2	20	0.0161	0.0142 J	13 (1)	20
Batch number: 13112039401A	Sample number(s): 7029644-7029646 BKG: 7029646								
15a pH by 9045C						7.34	7.32	0	3
Batch number: 13112162401B	Sample number(s): 7029644-7029646 BKG: P024684								
14a Moisture Content by 160.3						3.2	3.4	7	20

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 7a SVOC SIM EPA 8270D
Batch number: 13115SLD026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
7029644	105	107	105
7029645	97	113	102
7029646	101	97	100
Blank	90	108	103
LCS	94	111	105
MS	93	107	102
MSD	97	109	102
Limits:	54-129	61-134	55-129

Analysis Name: 22b Pesticides by EPA 8081B
Batch number: 131120022A

	Tetrachloro-m-xylene	Decachlorobiphenyl
7029647	93	86
Blank	93	80
LCS	85	66

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1384434
Reported: 05/02/13 at 02:25 PM

Surrogate Quality Control

LCSD	94	84
Limits:	60-140	20-120

Analysis Name: 20a Pesticides by EPA 8081B
Batch number: 131130011A

	Tetrachloro-m-xylene	Decachlorobiphenyl
7029646	82	110
Blank	89	107
LCS	91	113
MS	77	88
MSD	82	85
Limits:	50-130	20-120

Analysis Name: 19a PCBs and PCTs 8082A
Batch number: 131160002A

	Tetrachloro-m-xylene	Decachlorobiphenyl
7029644	108	119
7029645	118	112
7029646	106	100
Blank	121*	104
LCS	120	108
LCSD	128*	120
MS	127*	112
MSD	119	106
Limits:	45-120	45-120

Analysis Name: 10a TPH by EPA 8015B (DRO)
Batch number: 131140009A

	Chlorobenzene	Orthoterphenyl
7029644	96	91
7029645	91	94
7029646	95	93
Blank	87	77
LCS	91	91
MS	95	96
MSD	88	89
Limits:	37-125	66-123

Analysis Name: 23a Dioxin/Furan by EPA 1613B
Batch number: 13114001

	13C12-2378-TCDD	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF	13C12-234678-HxCDF	13C12-123789-HxCDF
7029644	82	76	83	83	81	88
7029645	74	71	78	82	78	78
7029646	76	68	77	80	78	77
Blank	74	74	82	86	83	80
OPR	68	69	77	81	78	77
Limits:	25-164	21-178	26-152	26-123	28-136	29-147

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1384434
Reported: 05/02/13 at 02:25 PM

Surrogate Quality Control

	13C12-1234678-HpCDF	13C12-1234789-HpCDF	13C12-OCDF	13C12-12378-PeCDD	13C12-123478-HxCDD	13C12-123678-HxCDD
7029644	85	80	79	81	83	84
7029645	93	72	69	78	80	84
7029646	88	73	71	74	80	84
Blank	96	78	76	79	88	86
OPR	89	70	68	75	79	81
Limits:	28-143	26-138	17-157	25-181	32-141	28-130

	13C12-123789-HxCDD	13C12-1234678-HpCDD	13C12-OCDD	13C12-2378-TCDF	13C12-12378-PeCDF
7029644	89	83	80	74	75
7029645	88	81	78	66	74
7029646	87	80	82	68	72
Blank	86	87	84	65	74
OPR	79	78	75	61	70
Limits:	28-130	23-140	17-157	24-169	24-185

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

acct# 13013 Cp# 1384434 Sample# 7029644-47

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 4/19/2013
CarrierName: FedEx
AirbillNo: 7995 7103 4032

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20130419-01
Cooler #: 1
Lab: Lancaster
Lab Phone: 717-556-7259
Lab Address: 2425 New Holland Pike, Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Other Analysis/Notes
SL-518-SA7-SB-0.0-0.5	4/19/13 08:50	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-518-SA7-SB-0.0-0.5	4/19/13 08:50	SO	None	1 - 4 oz glass	10 day													X																			
SL-520-SA7-SB-0.0-0.5	4/19/13 09:50	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-520-SA7-SB-0.0-0.5	4/19/13 09:50	SO	None	1 - 4 oz glass	10 day													X																			
SL-511-SA7-SB-0.0-0.5	4/19/13 11:05	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X							X				X											
SL-511-SA7-SB-0.0-0.5	4/19/13 11:05	SO	None	1 - 4 oz glass	10 day													X																			
EB-041913	4/19/13 13:00	WQ	None	1 - 250 mL Amber	10 day																	X															

Special Instructions:

Sampler: Steven Mercer

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
V. Catz	4/19/13										
									Pat Gh	4/20/13	0920

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C# 1384434

Environmental Sample Administration
Receipt Documentation Log

Client/Project: CDM Smith

Date of Receipt: 4/20/13

Time of Receipt: 0920

Source Code: 50

Shipping Container Sealed: YES NO

Custody Seal Present *: YES NO

* Custody seal was intact unless otherwise noted in the discrepancy section

Package: Chilled Not Chilled

Temperature of Shipping Containers							
Cooler #	Thermometer ID	Temperature (°C)	Temp Bottle (TB) or Surface Temp (ST)	Wet Ice (WI) or Dry Ice (DI) or Ice Packs (IP)	Ice Present? Y/N	Loose (L) Bagged Ice (B) or NA	Comments
1	DT 121	1.7	TB	WI	Y	B	
2							
3							
4							
5							
6							

Number of Trip Blanks received NOT listed on chain of custody: Ø

Paperwork Discrepancy/Unpacking Problems:

Unpacker Signature/Emp#: Pat Gr 3472 **Date/Time:** 4/20/13 1145

Issued by Dept. 6042 Management

2174.06

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	**BMQL**	Below Minimum Quantitation Level
N.D.	none detected	**MPN**	Most Probable Number
TNTC	Too Numerous To Count	**CP Units**	cobalt-chloroplatinate units
IU	International Units	**NTU**	nephelometric turbidity units
umhos/cm	micromhos/cm	**ng**	nanogram(s)
C	degrees Celsius	**F**	degrees Fahrenheit
meq	milliequivalents	**lb.**	pound(s)
g	gram(s)	**kg**	kilogram(s)
µg	microgram(s)	**mg**	milligram(s)
mL	milliliter(s)	**L**	liter(s)
m3	cubic meter(s)	**µL**	microliter(s)
		pg/L	picogram/liter

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

J estimated value – The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	**B**	Value is <CRDL, but ≥IDL
B	Analyte was also detected in the blank	**E**	Estimated due to interference
C	Pesticide result confirmed by GC/MS	**M**	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	**N**	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	**S**	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	**U**	Compound was not detected
P	Concentration difference between primary and confirmation columns >25%	**W**	Post digestion spike out of control limits
U	Compound was not detected	*****	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	**+**	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as “analyze immediately” are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL LANCASTER LABORATORIES BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF LANCASTER LABORATORIES AND (B) WHETHER LANCASTER LABORATORIES HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Lancaster Laboratories which includes any conditions that vary from the Standard Terms and Conditions, and Lancaster hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

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Analysis Report

ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

May 06, 2013

Project: Phase 3 Subarea 7

Submittal Date: 04/23/2013
Group Number: 1384759
SDG: PH036
PO Number: 1204-002-001-AL
State of Sample Origin: CA

Client Sample Description	Lancaster Labs (LLI) #
SL-510-SA7-SB-0.0-0.5 Soil	7031213
SL-510-SA7-SB-0.0-0.5MS Soil	7031214
SL-510-SA7-SB-0.0-0.5MSD Soil	7031215
SL-510-SA7-SB-0.0-0.5DUP Soil	7031216
SL-810-SA7-SB-0.0-0.5 Soil	7031217
SL-503-SA7-SB-0.0-0.5 Soil	7031218
SL-504-SA7-SB-0.0-0.5 Soil	7031219
SL-504-SA7-SB-4.0-5.0 Soil	7031220
TB-042213 Water	7031221
SL-517-SA7-SB-0.0-0.5 Soil	7031222

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO	LLI	Attn: Nicole Maljovec
ELECTRONIC COPY TO	Eurofins Lancaster Labs	Attn: Natalie Luciano

Respectfully Submitted,

Nicole L. Maljovec
Principal Specialist Group Leader

(717) 556-7259

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2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Analysis Report

Sample Description: SL-510-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7031213
LLI Group # 1384759
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/22/2013 08:45 by SM

Submitted: 04/23/2013 09:25
Reported: 05/06/2013 19:22

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51000 SDG#: PH036-01BKG

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.69	1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.35	1
12969	Anthracene	120-12-7	1.7	U	1.7	0.35	1
12969	Benzo(a)anthracene	56-55-3	1.3	J	1.7	0.69	1
12969	Benzo(a)pyrene	50-32-8	1.8		1.7	0.69	1
12969	Benzo(b)fluoranthene	205-99-2	5.0		1.7	0.69	1
12969	Benzo(e)pyrene	192-97-2	18	U	18	3.5	1
12969	Benzo(g,h,i)perylene	191-24-2	1.4	J	1.7	0.69	1
12969	Benzo(k)fluoranthene	207-08-9	9.4		1.7	0.69	1
12969	Butylbenzylphthalate	85-68-7	19	U	19	6.2	1
12969	Di-n-butylphthalate	84-74-2	19	U	19	6.2	1
12969	Chrysene	218-01-9	2.9		1.7	0.35	1
12969	Dibenz(a,h)anthracene	53-70-3	1.7	U	1.7	0.69	1
12969	Diethylphthalate	84-66-2	19	U	19	6.2	1
12969	Dimethylphthalate	131-11-3	19	U	19	6.2	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	7.3	J	19	6.2	1
12969	Fluoranthene	206-44-0	4.1		1.7	0.69	1
12969	Fluorene	86-73-7	1.7	U	1.7	0.69	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	2.0		1.7	0.69	1
12969	1-Methylnaphthalene	90-12-0	1.7	U	1.7	0.69	1
12969	2-Methylnaphthalene	91-57-6	1.7	U	1.7	0.69	1
12969	Naphthalene	91-20-3	0.93	J	1.7	0.69	1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.69	1
12969	Di-n-octylphthalate	117-84-0	19	U	19	6.2	1
12969	Phenanthrene	85-01-8	1.9		1.7	0.69	1
12969	Pyrene	129-00-0	3.4		1.7	0.69	1
Pesticides/PCBs	**SW-846 8081B**		**ug/kg**		**ug/kg**	**ug/kg**	
10590	Aldrin	309-00-2	0.86	U	0.86	0.18	1
10590	Alpha BHC	319-84-6	0.86	U	0.86	0.18	1
10590	Beta BHC	319-85-7	2.0	U	2.0	1.0	1
10590	Gamma BHC - Lindane	58-89-9	0.86	U	0.86	0.18	1
10590	Chlordane	57-74-9	18	U	18	4.2	1
10590	p,p-DDD	72-54-8	1.8	U	1.8	0.34	1
10590	p,p-DDE	72-55-9	0.67	J	1.8	0.34	1
10590	p,p-DDT	50-29-3	0.72	J	1.8	0.36	1
10590	Delta BHC	319-86-8	0.86	U	0.86	0.47	1
10590	Dieldrin	60-57-1	1.8	U	1.8	0.34	1
10590	Endosulfan I	959-98-8	0.86	U	0.86	0.23	1
10590	Endosulfan II	33213-65-9	1.8	U	1.8	0.34	1
10590	Endosulfan Sulfate	1031-07-8	1.8	U	1.8	0.34	1
10590	Endrin	72-20-8	1.8	U	1.8	0.34	1
10590	Endrin Aldehyde	7421-93-4	1.8	U	1.8	0.34	1
10590	Endrin Ketone	53494-70-5	1.9	U	1.9	0.62	1
10590	Heptachlor	76-44-8	0.86	U	0.86	0.18	1
10590	Heptachlor Epoxide	1024-57-3	0.86	U	0.86	0.18	1
10590	Methoxychlor	72-43-5	7.0	U	7.0	1.8	1
10590	Mirex	2385-85-5	1.8	U	1.8	0.36	1
10590	Toxaphene	8001-35-2	34	U	34	15	1

The response for a target analyte(s) in the continuing calibration verification standard is outside the QC acceptance

*=This limit was used in the evaluation of the final result

Sample Description: SL-510-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7031213
LLI Group # 1384759
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/22/2013 08:45 by SM

Submitted: 04/23/2013 09:25
Reported: 05/06/2013 19:22

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51000 SDG#: PH036-01BKG

limits. The following corrective action was taken:
The analysis was repeated and the continuing calibration verification standard bracketing the sample on the second trial is also outside the acceptance limits. This effect is attributed to the sample matrix and the data is reported.

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
10592	Aroclor 5432	63496-31-1	34	U	34	10	1
10592	Aroclor 5442	12642-23-8	34	U	34	10	1
10592	Aroclor 5460	11126-42-4	17	J	34	10	1
10592	PCB-1016	12674-11-2	18	U	18	3.4	1
10592	PCB-1221	11104-28-2	18	U	18	5.3	1
10592	PCB-1232	11141-16-5	18	U	18	4.3	1
10592	PCB-1242	53469-21-9	18	U	18	3.4	1
10592	PCB-1248	12672-29-6	18	U	18	3.4	1
10592	PCB-1254	11097-69-1	14	J	18	4.6	1
10592	PCB-1260	11096-82-5	18	U	18	4.0	1
10592	PCB-1262	37324-23-5	18	U	18	3.4	1
10592	PCB-1268	11100-14-4	18	U	18	3.4	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.2	U	5.2	2.1	1
12952	EFH (C15-C20)	n.a.	5.2	U	5.2	2.1	1
12952	EFH (C21-C30)	n.a.	6.9		5.2	2.1	1
12952	EFH (C30-C40)	n.a.	21		10	4.2	1
12952	EFH (C8-C11)	n.a.	5.2	U	5.2	2.1	1

The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.

Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	13,600		41.1	7.93	1
06944	Antimony	7440-36-0	4.11	U	4.11	0.514	1
06935	Arsenic	7440-38-2	5.14		4.11	0.339	1
06946	Barium	7440-39-3	73.5		1.03	0.0339	1
06947	Beryllium	7440-41-7	0.542	J	1.03	0.0689	1
07914	Boron	7440-42-8	5.94	J	10.3	0.853	1
06949	Cadmium	7440-43-9	0.120	J	1.03	0.0339	1
01650	Calcium	7440-70-2	2,950		20.6	4.13	1
06951	Chromium	7440-47-3	20.4		3.08	0.0905	1
06952	Cobalt	7440-48-4	4.80		1.03	0.0925	1
06953	Copper	7440-50-8	12.8		2.06	0.185	1
01654	Iron	7439-89-6	22,600		41.1	3.91	1
06955	Lead	7439-92-1	29.2		3.08	0.483	1
01656	Lithium	7439-93-2	26.6		4.1	0.57	1
01657	Magnesium	7439-95-4	5,300		10.3	1.78	1
06958	Manganese	7439-96-5	276		1.03	0.0853	1
06960	Molybdenum	7439-98-7	0.302	J	2.06	0.175	1
06961	Nickel	7440-02-0	10.9		2.06	0.113	1
10145	Phosphorus	7723-14-0	436		10.3	0.524	1
01662	Potassium	7440-09-7	3,480		103	13.9	1
01667	Sodium	7440-23-5	75.9	J	103	17.2	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-510-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7031213
LLI Group # 1384759
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/22/2013 08:45 by SM

Submitted: 04/23/2013 09:25
Reported: 05/06/2013 19:22

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51000 SDG#: PH036-01BKG

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
06969	Tin	7440-31-5	3.14	J	10.3	0.226	1
06970	Titanium	7440-32-6	1,170		1.03	0.175	1
06971	Vanadium	7440-62-2	36.7		1.03	0.113	1
06972	Zinc	7440-66-6	62.4		4.11	0.206	1
10146	Zirconium	7440-67-7	2.52	J	5.14	0.853	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.411	U	0.411	0.103	2
06142	Silver	7440-22-4	0.0279	J	0.206	0.0206	2
06144	Strontium	7440-24-6	13.2		0.411	0.0350	2
06145	Thallium	7440-28-0	0.283		0.206	0.0308	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0167		0.0164	0.0102	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045C	n.a.	6.77		0.0100	0.0100	1
	The pH was measured in water at 21.5 C.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	3.7		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-510-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7031213
LLI Group # 1384759
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/22/2013 08:45 by SM

Submitted: 04/23/2013 09:25
Reported: 05/06/2013 19:22

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51000 SDG#: PH036-01BKG

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.999	U	0.999	0.0212	1
11031	12378-PeCDD	40321-76-4	0.203	J	5.00	0.0248	1
11031	123478-HxCDD	39227-28-6	0.317	J	5.00	0.0266	1
11031	123678-HxCDD	57653-85-7	0.925	J	5.00	0.0266	1
11031	123789-HxCDD	19408-74-3	0.703	JB	5.00	0.0260	1
11031	1234678-HpCDD	35822-46-9	23.2	B	5.00	0.0296	1
11031	OCDD	3268-87-9	177	B	9.99	0.0224	1
11031	2378-TCDF	51207-31-9	0.258	J	0.999	0.0331	1
11031	12378-PeCDF	57117-41-6	0.591	JB	5.00	0.0160	1
11031	23478-PeCDF	57117-31-4	0.824	JB	5.00	0.0159	1
11031	123478-HxCDF	70648-26-9	1.97	JB	5.00	0.0228	1
11031	123678-HxCDF	57117-44-9	0.497	JB	5.00	0.0210	1
11031	123789-HxCDF	72918-21-9	0.175	JBQ	5.00	0.0249	1
11031	234678-HxCDF	60851-34-5	0.478	JB	5.00	0.0225	1
11031	1234678-HpCDF	67562-39-4	4.70	JB	5.00	0.0174	1
11031	1234789-HpCDF	55673-89-7	0.416	JB	5.00	0.0267	1
11031	OCDF	39001-02-0	10.9	B	9.99	0.0227	1
Toxic Equivalents	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	1.32				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	79	25 - 164
13C12-12378-PeCDD	82	25 - 181
13C12-123478-HxCDD	86	32 - 141
13C12-123678-HxCDD	86	28 - 130
13C12-123789-HxCDD	85	28 - 130
13C12-1234678-HpCDD	84	23 - 140
13C12-OCDD	83	17 - 157
13C12-2378-TCDF	78	24 - 169
13C12-12378-PeCDF	85	24 - 185
13C12-23478-PeCDF	81	21 - 178
13C12-123478-HxCDF	90	26 - 152
13C12-123678-HxCDF	94	26 - 123
13C12-234678-HxCDF	89	28 - 136
13C12-123789-HxCDF	91	29 - 147
13C12-1234678-HpCDF	106	28 - 143
13C12-1234789-HpCDF	79	26 - 138
13C12-OCDF	75	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration

*=This limit was used in the evaluation of the final result

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Analysis Report

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Sample Description: SL-510-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7031213
LLI Group # 1384759
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/22/2013 08:45 by SM

Submitted: 04/23/2013 09:25
Reported: 05/06/2013 19:22

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51000 SDG#: PH036-01BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-510-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7031213
LLI Group # 1384759
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/22/2013 08:45 by SM

Submitted: 04/23/2013 09:25
Reported: 05/06/2013 19:22

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51000 SDG#: PH036-01BKG

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13115SLD026	04/30/2013 09:17	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	13115SLD026	04/25/2013 15:45	Nicholas W Shroyer	1
10590	20a Pesticides by EPA 8081B	SW-846 8081B	1	131130011A	04/27/2013 13:57	Jamie L Brillhart	1
10592	19a PCBs and PCTs 8082A	SW-846 8082A	1	131130012A	04/27/2013 01:48	Monica M Souders	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	131130012A	04/23/2013 18:00	Sally L Appleyard	1
10497	PCB Microwave Soil Extraction	SW-846 3546	2	131160002A	04/26/2013 22:15	Karen L Beyer	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	131130011A	04/23/2013 18:10	Sally L Appleyard	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	131140009A	04/26/2013 07:25	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	131140009A	04/25/2013 02:00	Sherry L Morrow	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13120002	05/01/2013 20:01	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13120002	04/30/2013 11:15	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010C	1	131150637001	04/28/2013 18:26	Tara L Snyder	1
06944	Antimony	SW-846 6010C	1	131150637001	04/28/2013 18:26	Tara L Snyder	1
06935	Arsenic	SW-846 6010C	1	131150637001	04/28/2013 18:26	Tara L Snyder	1
06946	Barium	SW-846 6010C	1	131150637001	04/28/2013 18:26	Tara L Snyder	1
06947	Beryllium	SW-846 6010C	1	131150637001	04/28/2013 18:26	Tara L Snyder	1
07914	Boron	SW-846 6010C	1	131150637001	04/28/2013 18:26	Tara L Snyder	1
06949	Cadmium	SW-846 6010C	1	131150637001	04/28/2013 18:26	Tara L Snyder	1
01650	Calcium	SW-846 6010C	1	131150637001	04/28/2013 18:26	Tara L Snyder	1
06951	Chromium	SW-846 6010C	1	131150637001	04/28/2013 18:26	Tara L Snyder	1
06952	Cobalt	SW-846 6010C	1	131150637001	04/28/2013 18:26	Tara L Snyder	1
06953	Copper	SW-846 6010C	1	131150637001	04/28/2013 18:26	Tara L Snyder	1
01654	Iron	SW-846 6010C	1	131150637001	04/28/2013 18:26	Tara L Snyder	1
06955	Lead	SW-846 6010C	1	131150637001	04/28/2013 18:26	Tara L Snyder	1
01656	Lithium	SW-846 6010C	1	131150637001	04/28/2013 18:26	Tara L Snyder	1
01657	Magnesium	SW-846 6010C	1	131150637001	04/28/2013 18:26	Tara L Snyder	1
06958	Manganese	SW-846 6010C	1	131150637001	04/28/2013 18:26	Tara L Snyder	1
06960	Molybdenum	SW-846 6010C	1	131150637001	04/28/2013 18:26	Tara L Snyder	1
06961	Nickel	SW-846 6010C	1	131150637001	04/28/2013 18:26	Tara L Snyder	1
10145	Phosphorus	SW-846 6010C	1	131150637001	04/28/2013 18:26	Tara L Snyder	1
01662	Potassium	SW-846 6010C	1	131150637001	04/28/2013 18:26	Tara L Snyder	1
01667	Sodium	SW-846 6010C	1	131150637001	04/28/2013 18:26	Tara L Snyder	1
06969	Tin	SW-846 6010C	1	131150637001	04/28/2013 18:26	Tara L Snyder	1
06970	Titanium	SW-846 6010C	1	131150637001	04/28/2013 18:26	Tara L Snyder	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-510-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7031213
LLI Group # 1384759
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/22/2013 08:45 by SM

Submitted: 04/23/2013 09:25
Reported: 05/06/2013 19:22

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51000 SDG#: PH036-01BKG

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06971	Vanadium	SW-846 6010C	1	131150637001	04/28/2013 18:26	Tara L Snyder	1
06972	Zinc	SW-846 6010C	1	131150637001	04/28/2013 18:26	Tara L Snyder	1
10146	Zirconium	SW-846 6010C	1	131150637001	04/28/2013 18:26	Tara L Snyder	1
06141	Selenium	SW-846 6020A	1	131150637001B	04/29/2013 08:26	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	131150637001A	04/29/2013 08:26	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	131150637001A	04/29/2013 08:26	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	131150637001A	04/29/2013 08:26	Choon Y Tian	2
00159	3a Mercury 7471A	SW-846 7471B	1	131150638001	04/26/2013 08:55	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	131150637001	04/25/2013 22:32	Annamaria Stipkovits	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	131150638001	04/26/2013 03:00	Annamaria Stipkovits	1
00394	15a pH by 9045C	SW-846 9045D modified	1	13113039401A	04/23/2013 20:00	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13115162401B	04/25/2013 19:23	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-510-SA7-SB-0.0-0.5MS Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7031214
LLI Group # 1384759
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/22/2013 08:45 by SM

Submitted: 04/23/2013 09:25
Reported: 05/06/2013 19:22

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51000 SDG#: PH036-01MS

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	35		1.7	0.69	1
12969	Acenaphthylene	208-96-8	33		1.7	0.35	1
12969	Anthracene	120-12-7	33		1.7	0.35	1
12969	Benzo(a)anthracene	56-55-3	35		1.7	0.69	1
12969	Benzo(a)pyrene	50-32-8	36		1.7	0.69	1
12969	Benzo(b)fluoranthene	205-99-2	42		1.7	0.69	1
12969	Benzo(e)pyrene	192-97-2	34		18	3.5	1
12969	Benzo(g,h,i)perylene	191-24-2	23		1.7	0.69	1
12969	Benzo(k)fluoranthene	207-08-9	39		1.7	0.69	1
12969	Butylbenzylphthalate	85-68-7	45		19	6.2	1
12969	Di-n-butylphthalate	84-74-2	36		19	6.2	1
12969	Chrysene	218-01-9	35		1.7	0.35	1
12969	Dibenz(a,h)anthracene	53-70-3	29		1.7	0.69	1
12969	Diethylphthalate	84-66-2	33		19	6.2	1
12969	Dimethylphthalate	131-11-3	32		19	6.2	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	46		19	6.2	1
12969	Fluoranthene	206-44-0	36		1.7	0.69	1
12969	Fluorene	86-73-7	34		1.7	0.69	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	27		1.7	0.69	1
12969	1-Methylnaphthalene	90-12-0	36		1.7	0.69	1
12969	2-Methylnaphthalene	91-57-6	36		1.7	0.69	1
12969	Naphthalene	91-20-3	36		1.7	0.69	1
12969	N-Nitrosodimethylamine	62-75-9	45		1.7	0.69	1
12969	Di-n-octylphthalate	117-84-0	48		19	6.2	1
12969	Phenanthrene	85-01-8	35		1.7	0.69	1
12969	Pyrene	129-00-0	34		1.7	0.69	1
Pesticides/PCBs	**SW-846 8081B**		**ug/kg**		**ug/kg**	**ug/kg**	
10590	Aldrin	309-00-2	2.9		0.86	0.18	1
10590	Alpha BHC	319-84-6	2.8		0.86	0.18	1
10590	Beta BHC	319-85-7	2.7		2.0	1.0	1
10590	Gamma BHC - Lindane	58-89-9	2.8		0.86	0.18	1
10590	Chlordane	57-74-9	18	U	18	4.2	1
10590	p,p-DDD	72-54-8	6.5		1.8	0.34	1
10590	p,p-DDE	72-55-9	6.8		1.8	0.34	1
10590	p,p-DDT	50-29-3	7.5		1.8	0.36	1
10590	Delta BHC	319-86-8	3.2		0.86	0.47	1
10590	Dieldrin	60-57-1	6.9		1.8	0.34	1
10590	Endosulfan I	959-98-8	3.1		0.86	0.23	1
10590	Endosulfan II	33213-65-9	5.6		1.8	0.34	1
10590	Endosulfan Sulfate	1031-07-8	6.0		1.8	0.34	1
10590	Endrin	72-20-8	6.2		1.8	0.34	1
10590	Endrin Aldehyde	7421-93-4	6.7		1.8	0.34	1
10590	Endrin Ketone	53494-70-5	4.0		1.9	0.62	1
10590	Heptachlor	76-44-8	2.9		0.86	0.18	1
10590	Heptachlor Epoxide	1024-57-3	3.0		0.86	0.18	1
10590	Methoxychlor	72-43-5	29		7.0	1.8	1
10590	Mirex	2385-85-5	1.8	U	1.8	0.36	1
10590	Toxaphene	8001-35-2	34	U	34	15	1

The response for a target analyte(s) in the continuing calibration verification standard is outside the QC acceptance

*=This limit was used in the evaluation of the final result

Sample Description: SL-510-SA7-SB-0.0-0.5MS Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7031214
LLI Group # 1384759
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/22/2013 08:45 by SM

Submitted: 04/23/2013 09:25
Reported: 05/06/2013 19:22

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51000 SDG#: PH036-01MS

limits. The following corrective action was taken:
The analysis was repeated and the continuing calibration verification standard bracketing the sample on the second trial is also outside the acceptance limits. This effect is attributed to the sample matrix and the data is reported.

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
10592	Aroclor 5432	63496-31-1	34	U	34	10	1
10592	Aroclor 5442	12642-23-8	34	U	34	10	1
10592	Aroclor 5460	11126-42-4	16	J	34	10	1
10592	PCB-1016	12674-11-2	170		18	3.4	1
10592	PCB-1221	11104-28-2	18	U	18	5.3	1
10592	PCB-1232	11141-16-5	18	U	18	4.3	1
10592	PCB-1242	53469-21-9	18	U	18	3.4	1
10592	PCB-1248	12672-29-6	18	U	18	3.4	1
10592	PCB-1254	11097-69-1	79		18	4.6	1
10592	PCB-1260	11096-82-5	170		18	4.0	1
10592	PCB-1262	37324-23-5	18	U	18	3.4	1
10592	PCB-1268	11100-14-4	18	U	18	3.4	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.2	U	5.2	2.1	1
12952	EFH (C15-C20)	n.a.	3.2	J	5.2	2.1	1
12952	EFH (C21-C30)	n.a.	12		5.2	2.1	1
12952	EFH (C30-C40)	n.a.	32		10	4.2	1
12952	EFH (C8-C11)	n.a.	5.2	U	5.2	2.1	1

The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.

Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	18,900		41.1	7.93	1
06944	Antimony	7440-36-0	34.4		4.11	0.514	1
06935	Arsenic	7440-38-2	19.8		4.11	0.339	1
06946	Barium	7440-39-3	288		1.03	0.0339	1
06947	Beryllium	7440-41-7	5.97		1.03	0.0689	1
07914	Boron	7440-42-8	213		10.3	0.853	1
06949	Cadmium	7440-43-9	5.12		1.03	0.0339	1
01650	Calcium	7440-70-2	3,520		20.6	4.13	1
06951	Chromium	7440-47-3	42.4		3.08	0.0905	1
06952	Cobalt	7440-48-4	56.3		1.03	0.0925	1
06953	Copper	7440-50-8	41.3		2.06	0.185	1
01654	Iron	7439-89-6	25,900		41.1	3.91	1
06955	Lead	7439-92-1	45.3		3.08	0.483	1
01656	Lithium	7439-93-2	132		4.1	0.57	1
01657	Magnesium	7439-95-4	5,810		10.3	1.78	1
06958	Manganese	7439-96-5	351		1.03	0.0853	1
06960	Molybdenum	7439-98-7	203		2.06	0.175	1
06961	Nickel	7440-02-0	63.7		2.06	0.113	1
10145	Phosphorus	7723-14-0	516		10.3	0.524	1
01662	Potassium	7440-09-7	4,920		103	13.9	1
01667	Sodium	7440-23-5	1,090		103	17.2	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-510-SA7-SB-0.0-0.5MS Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7031214
LLI Group # 1384759
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/22/2013 08:45 by SM

Submitted: 04/23/2013 09:25
Reported: 05/06/2013 19:22

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51000 SDG#: PH036-01MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**	**mg/kg**	**mg/kg**	
06969	Tin	7440-31-5	391	10.3	0.226	1
06970	Titanium	7440-32-6	1,540	1.03	0.175	1
06971	Vanadium	7440-62-2	95.3	1.03	0.113	1
06972	Zinc	7440-66-6	117	4.11	0.206	1
10146	Zirconium	7440-67-7	104	5.14	0.853	1
	SW-846 6020A		**mg/kg**	**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	1.94	0.411	0.103	2
06142	Silver	7440-22-4	9.88	0.206	0.0206	2
06144	Strontium	7440-24-6	18.8	0.411	0.0350	2
06145	Thallium	7440-28-0	0.640	0.206	0.0308	2
	SW-846 7471B		**mg/kg**	**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.193	0.0168	0.0104	1
Wet Chemistry	**EPA 160.3 modified**		**%**	**%**	**%**	
11625	14a Moisture Content by 160.3	n.a.	3.7	0.10	0.10	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-510-SA7-SB-0.0-0.5MS Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7031214
LLI Group # 1384759
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/22/2013 08:45 by SM

Submitted: 04/23/2013 09:25
Reported: 05/06/2013 19:22

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51000 SDG#: PH036-01MS

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	18.4		1.00	0.0312	1
11031	12378-PeCDD	40321-76-4	96.9		5.02	0.0384	1
11031	123478-HxCDD	39227-28-6	102		5.02	0.0362	1
11031	123678-HxCDD	57653-85-7	99.4		5.02	0.0383	1
11031	123789-HxCDD	19408-74-3	101	B	5.02	0.0366	1
11031	1234678-HpCDD	35822-46-9	119	B	5.02	0.0359	1
11031	OCDD	3268-87-9	377	B	10.0	0.0321	1
11031	2378-TCDF	51207-31-9	20.0		1.00	0.0402	1
11031	12378-PeCDF	57117-41-6	99.4	B	5.02	0.0230	1
11031	23478-PeCDF	57117-31-4	101	B	5.02	0.0230	1
11031	123478-HxCDF	70648-26-9	105	B	5.02	0.0447	1
11031	123678-HxCDF	57117-44-9	100	B	5.02	0.0409	1
11031	123789-HxCDF	72918-21-9	103	B	5.02	0.0507	1
11031	234678-HxCDF	60851-34-5	101	B	5.02	0.0448	1
11031	1234678-HpCDF	67562-39-4	104	B	5.02	0.0292	1
11031	1234789-HpCDF	55673-89-7	100	B	5.02	0.0446	1
11031	OCDF	39001-02-0	212	B	10.0	0.0326	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	80	25 - 164
13C12-12378-PeCDD	85	25 - 181
13C12-123478-HxCDD	86	32 - 141
13C12-123678-HxCDD	86	28 - 130
13C12-123789-HxCDD	84	28 - 130
13C12-1234678-HpCDD	86	23 - 140
13C12-OCDD	82	17 - 157
13C12-2378-TCDF	79	24 - 169
13C12-12378-PeCDF	88	24 - 185
13C12-23478-PeCDF	85	21 - 178
13C12-123478-HxCDF	88	26 - 152
13C12-123678-HxCDF	93	26 - 123
13C12-234678-HxCDF	87	28 - 136
13C12-123789-HxCDF	83	29 - 147
13C12-1234678-HpCDF	102	28 - 143
13C12-1234789-HpCDF	80	26 - 138
13C12-OCDF	77	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present
S Saturation of detection signal

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-510-SA7-SB-0.0-0.5MS Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7031214
LLI Group # 1384759
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/22/2013 08:45 by SM

Submitted: 04/23/2013 09:25
Reported: 05/06/2013 19:22

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51000 SDG#: PH036-01MS

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13115SLD026	04/30/2013 09:48	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	13115SLD026	04/25/2013 15:45	Nicholas W Shroyer	1
10590	20a Pesticides by EPA 8081B	SW-846 8081B	1	131130011A	04/27/2013 14:09	Jamie L Brillhart	1
10592	19a PCBs and PCTs 8082A	SW-846 8082A	1	131130012A	04/27/2013 02:06	Monica M Souders	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	131130012A	04/23/2013 18:00	Sally L Appleyard	1
10497	PCB Microwave Soil Extraction	SW-846 3546	2	131160002A	04/26/2013 22:15	Karen L Beyer	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	131130011A	04/23/2013 18:10	Sally L Appleyard	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	131140009A	04/26/2013 07:46	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	131140009A	04/25/2013 02:00	Sherry L Morrow	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13120002	05/01/2013 20:58	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13120002	04/30/2013 11:15	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010C	1	131150637001	04/28/2013 18:38	Tara L Snyder	1
06944	Antimony	SW-846 6010C	1	131150637001	04/28/2013 18:38	Tara L Snyder	1
06935	Arsenic	SW-846 6010C	1	131150637001	04/28/2013 18:38	Tara L Snyder	1
06946	Barium	SW-846 6010C	1	131150637001	04/28/2013 18:38	Tara L Snyder	1
06947	Beryllium	SW-846 6010C	1	131150637001	04/28/2013 18:38	Tara L Snyder	1
07914	Boron	SW-846 6010C	1	131150637001	04/28/2013 18:38	Tara L Snyder	1
06949	Cadmium	SW-846 6010C	1	131150637001	04/28/2013 18:38	Tara L Snyder	1
01650	Calcium	SW-846 6010C	1	131150637001	04/28/2013 18:38	Tara L Snyder	1
06951	Chromium	SW-846 6010C	1	131150637001	04/28/2013 18:38	Tara L Snyder	1
06952	Cobalt	SW-846 6010C	1	131150637001	04/28/2013 18:38	Tara L Snyder	1
06953	Copper	SW-846 6010C	1	131150637001	04/28/2013 18:38	Tara L Snyder	1
01654	Iron	SW-846 6010C	1	131150637001	04/28/2013 18:38	Tara L Snyder	1
06955	Lead	SW-846 6010C	1	131150637001	04/28/2013 18:38	Tara L Snyder	1
01656	Lithium	SW-846 6010C	1	131150637001	04/28/2013 18:38	Tara L Snyder	1
01657	Magnesium	SW-846 6010C	1	131150637001	04/28/2013 18:38	Tara L Snyder	1
06958	Manganese	SW-846 6010C	1	131150637001	04/28/2013 18:38	Tara L Snyder	1
06960	Molybdenum	SW-846 6010C	1	131150637001	04/28/2013 18:38	Tara L Snyder	1
06961	Nickel	SW-846 6010C	1	131150637001	04/28/2013 18:38	Tara L Snyder	1
10145	Phosphorus	SW-846 6010C	1	131150637001	04/28/2013 18:38	Tara L Snyder	1
01662	Potassium	SW-846 6010C	1	131150637001	04/28/2013 18:38	Tara L Snyder	1
01667	Sodium	SW-846 6010C	1	131150637001	04/28/2013 18:38	Tara L Snyder	1
06969	Tin	SW-846 6010C	1	131150637001	04/28/2013 18:38	Tara L Snyder	1
06970	Titanium	SW-846 6010C	1	131150637001	04/28/2013 18:38	Tara L Snyder	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-510-SA7-SB-0.0-0.5MS Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7031214
LLI Group # 1384759
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/22/2013 08:45 by SM

Submitted: 04/23/2013 09:25
Reported: 05/06/2013 19:22

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51000 SDG#: PH036-01MS

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06971	Vanadium	SW-846 6010C	1	131150637001	04/28/2013 18:38	Tara L Snyder	1
06972	Zinc	SW-846 6010C	1	131150637001	04/28/2013 18:38	Tara L Snyder	1
10146	Zirconium	SW-846 6010C	1	131150637001	04/28/2013 18:38	Tara L Snyder	1
06141	Selenium	SW-846 6020A	1	131150637001B	04/29/2013 08:33	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	131150637001A	04/29/2013 08:33	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	131150637001A	04/29/2013 08:33	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	131150637001A	04/29/2013 08:33	Choon Y Tian	2
00159	3a Mercury 7471A	SW-846 7471B	1	131150638001	04/26/2013 09:01	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	131150637001	04/25/2013 22:32	Annamaria Stipkovits	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	131150638001	04/26/2013 03:00	Annamaria Stipkovits	1
11625	14a Moisture Content by 160.3	EPA 160.3 modified	1	13115162401B	04/25/2013 19:23	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-510-SA7-SB-0.0-0.5MSD Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7031215
LLI Group # 1384759
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/22/2013 08:45 by SM

Submitted: 04/23/2013 09:25
Reported: 05/06/2013 19:22

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51000 SDG#: PH036-01MSD

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	36		1.7	0.69	1
12969	Acenaphthylene	208-96-8	34		1.7	0.35	1
12969	Anthracene	120-12-7	34		1.7	0.35	1
12969	Benzo(a)anthracene	56-55-3	37		1.7	0.69	1
12969	Benzo(a)pyrene	50-32-8	38		1.7	0.69	1
12969	Benzo(b)fluoranthene	205-99-2	44		1.7	0.69	1
12969	Benzo(e)pyrene	192-97-2	35		18	3.5	1
12969	Benzo(g,h,i)perylene	191-24-2	27		1.7	0.69	1
12969	Benzo(k)fluoranthene	207-08-9	40		1.7	0.69	1
12969	Butylbenzylphthalate	85-68-7	42		19	6.2	1
12969	Di-n-butylphthalate	84-74-2	38		19	6.2	1
12969	Chrysene	218-01-9	37		1.7	0.35	1
12969	Dibenz(a,h)anthracene	53-70-3	31		1.7	0.69	1
12969	Diethylphthalate	84-66-2	35		19	6.2	1
12969	Dimethylphthalate	131-11-3	33		19	6.2	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	50		19	6.2	1
12969	Fluoranthene	206-44-0	37		1.7	0.69	1
12969	Fluorene	86-73-7	34		1.7	0.69	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	30		1.7	0.69	1
12969	1-Methylnaphthalene	90-12-0	36		1.7	0.69	1
12969	2-Methylnaphthalene	91-57-6	37		1.7	0.69	1
12969	Naphthalene	91-20-3	36		1.7	0.69	1
12969	N-Nitrosodimethylamine	62-75-9	47		1.7	0.69	1
12969	Di-n-octylphthalate	117-84-0	45		19	6.2	1
12969	Phenanthrene	85-01-8	35		1.7	0.69	1
12969	Pyrene	129-00-0	35		1.7	0.69	1
Pesticides/PCBs	**SW-846 8081B**		**ug/kg**		**ug/kg**	**ug/kg**	
10590	Aldrin	309-00-2	2.8		0.86	0.18	1
10590	Alpha BHC	319-84-6	2.9		0.86	0.18	1
10590	Beta BHC	319-85-7	2.9		2.0	1.0	1
10590	Gamma BHC - Lindane	58-89-9	3.1		0.86	0.18	1
10590	Chlordane	57-74-9	18	U	18	4.2	1
10590	p,p-DDD	72-54-8	6.4		1.8	0.34	1
10590	p,p-DDE	72-55-9	6.6		1.8	0.34	1
10590	p,p-DDT	50-29-3	8.5		1.8	0.36	1
10590	Delta BHC	319-86-8	3.2		0.86	0.47	1
10590	Dieldrin	60-57-1	6.2		1.8	0.34	1
10590	Endosulfan I	959-98-8	2.8		0.86	0.23	1
10590	Endosulfan II	33213-65-9	5.7		1.8	0.34	1
10590	Endosulfan Sulfate	1031-07-8	5.8		1.8	0.34	1
10590	Endrin	72-20-8	6.1		1.8	0.34	1
10590	Endrin Aldehyde	7421-93-4	6.3		1.8	0.34	1
10590	Endrin Ketone	53494-70-5	3.8		1.9	0.62	1
10590	Heptachlor	76-44-8	2.9		0.86	0.18	1
10590	Heptachlor Epoxide	1024-57-3	3.3		0.86	0.18	1
10590	Methoxychlor	72-43-5	32		7.0	1.8	1
10590	Mirex	2385-85-5	1.8	U	1.8	0.36	1
10590	Toxaphene	8001-35-2	34	U	34	15	1

The response for a target analyte(s) in the continuing calibration verification standard is outside the QC acceptance

*=This limit was used in the evaluation of the final result

Sample Description: SL-510-SA7-SB-0.0-0.5MSD Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7031215
LLI Group # 1384759
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/22/2013 08:45 by SM

Submitted: 04/23/2013 09:25
Reported: 05/06/2013 19:22

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51000 SDG#: PH036-01MSD

limits. The following corrective action was taken:
The analysis was repeated and the continuing calibration verification standard bracketing the sample on the second trial is also outside the acceptance limits. This effect is attributed to the sample matrix and the data is reported.

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
10592	Aroclor 5432	63496-31-1	34	U	34	10	1
10592	Aroclor 5442	12642-23-8	34	U	34	10	1
10592	Aroclor 5460	11126-42-4	34	U	34	10	1
10592	PCB-1016	12674-11-2	170		18	3.4	1
10592	PCB-1221	11104-28-2	18	U	18	5.3	1
10592	PCB-1232	11141-16-5	18	U	18	4.3	1
10592	PCB-1242	53469-21-9	18	U	18	3.4	1
10592	PCB-1248	12672-29-6	18	U	18	3.4	1
10592	PCB-1254	11097-69-1	65		18	4.6	1
10592	PCB-1260	11096-82-5	170		18	4.0	1
10592	PCB-1262	37324-23-5	18	U	18	3.4	1
10592	PCB-1268	11100-14-4	18	U	18	3.4	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.2	U	5.2	2.1	1
12952	EFH (C15-C20)	n.a.	3.6	J	5.2	2.1	1
12952	EFH (C21-C30)	n.a.	15		5.2	2.1	1
12952	EFH (C30-C40)	n.a.	37		10	4.2	1
12952	EFH (C8-C11)	n.a.	5.2	U	5.2	2.1	1

The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.

Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	18,200		41.1	7.93	1
06944	Antimony	7440-36-0	33.0		4.11	0.514	1
06935	Arsenic	7440-38-2	21.3		4.11	0.339	1
06946	Barium	7440-39-3	291		1.03	0.0339	1
06947	Beryllium	7440-41-7	5.89		1.03	0.0689	1
07914	Boron	7440-42-8	212		10.3	0.853	1
06949	Cadmium	7440-43-9	5.18		1.03	0.0339	1
01650	Calcium	7440-70-2	3,760		20.6	4.13	1
06951	Chromium	7440-47-3	41.7		3.08	0.0905	1
06952	Cobalt	7440-48-4	56.2		1.03	0.0925	1
06953	Copper	7440-50-8	41.2		2.06	0.185	1
01654	Iron	7439-89-6	25,200		41.1	3.91	1
06955	Lead	7439-92-1	57.8		3.08	0.483	1
01656	Lithium	7439-93-2	131		4.1	0.57	1
01657	Magnesium	7439-95-4	5,750		10.3	1.78	1
06958	Manganese	7439-96-5	344		1.03	0.0853	1
06960	Molybdenum	7439-98-7	203		2.06	0.175	1
06961	Nickel	7440-02-0	62.9		2.06	0.113	1
10145	Phosphorus	7723-14-0	552		10.3	0.524	1
01662	Potassium	7440-09-7	4,890		103	13.9	1
01667	Sodium	7440-23-5	1,090		103	17.2	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-510-SA7-SB-0.0-0.5MSD Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7031215
LLI Group # 1384759
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/22/2013 08:45 by SM

Submitted: 04/23/2013 09:25
Reported: 05/06/2013 19:22

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51000 SDG#: PH036-01MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**	**mg/kg**	**mg/kg**	
06969	Tin	7440-31-5	394	10.3	0.226	1
06970	Titanium	7440-32-6	1,510	1.03	0.175	1
06971	Vanadium	7440-62-2	94.1	1.03	0.113	1
06972	Zinc	7440-66-6	117	4.11	0.206	1
10146	Zirconium	7440-67-7	103	5.14	0.853	1
	SW-846 6020A		**mg/kg**	**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	1.86	0.411	0.103	2
06142	Silver	7440-22-4	10.1	0.206	0.0206	2
06144	Strontium	7440-24-6	19.3	0.411	0.0350	2
06145	Thallium	7440-28-0	0.654	0.206	0.0308	2
	SW-846 7471B		**mg/kg**	**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.189	0.0166	0.0103	1
Wet Chemistry	**EPA 160.3 modified**		**%**	**%**	**%**	
11625	14a Moisture Content by 160.3	n.a.	3.7	0.10	0.10	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-510-SA7-SB-0.0-0.5MSD Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7031215
LLI Group # 1384759
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/22/2013 08:45 by SM

Submitted: 04/23/2013 09:25
Reported: 05/06/2013 19:22

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51000 SDG#: PH036-01MSD

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	18.9		1.03	0.0341	1
11031	12378-PeCDD	40321-76-4	99.3		5.14	0.0413	1
11031	123478-HxCDD	39227-28-6	103		5.14	0.0431	1
11031	123678-HxCDD	57653-85-7	103		5.14	0.0430	1
11031	123789-HxCDD	19408-74-3	103	B	5.14	0.0412	1
11031	1234678-HpCDD	35822-46-9	127	B	5.14	0.0467	1
11031	OCDD	3268-87-9	464	B	10.3	0.0343	1
11031	2378-TCDF	51207-31-9	20.3		1.03	0.0460	1
11031	12378-PeCDF	57117-41-6	101	B	5.14	0.0308	1
11031	23478-PeCDF	57117-31-4	103	B	5.14	0.0294	1
11031	123478-HxCDF	70648-26-9	106	B	5.14	0.0495	1
11031	123678-HxCDF	57117-44-9	102	B	5.14	0.0475	1
11031	123789-HxCDF	72918-21-9	103	B	5.14	0.0542	1
11031	234678-HxCDF	60851-34-5	102	B	5.14	0.0470	1
11031	1234678-HpCDF	67562-39-4	106	B	5.14	0.0339	1
11031	1234789-HpCDF	55673-89-7	103	B	5.14	0.0484	1
11031	OCDF	39001-02-0	219	B	10.3	0.0366	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	80	25 - 164
13C12-12378-PeCDD	84	25 - 181
13C12-123478-HxCDD	88	32 - 141
13C12-123678-HxCDD	92	28 - 130
13C12-123789-HxCDD	88	28 - 130
13C12-1234678-HpCDD	87	23 - 140
13C12-OCDD	86	17 - 157
13C12-2378-TCDF	78	24 - 169
13C12-12378-PeCDF	86	24 - 185
13C12-23478-PeCDF	84	21 - 178
13C12-123478-HxCDF	89	26 - 152
13C12-123678-HxCDF	94	26 - 123
13C12-234678-HxCDF	90	28 - 136
13C12-123789-HxCDF	88	29 - 147
13C12-1234678-HpCDF	103	28 - 143
13C12-1234789-HpCDF	83	26 - 138
13C12-OCDF	80	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present
S Saturation of detection signal

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-510-SA7-SB-0.0-0.5MSD Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7031215
LLI Group # 1384759
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/22/2013 08:45 by SM

Submitted: 04/23/2013 09:25
Reported: 05/06/2013 19:22

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51000 SDG#: PH036-01MSD

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13115SLD026	04/30/2013 10:19	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	13115SLD026	04/25/2013 15:45	Nicholas W Shroyer	1
10590	20a Pesticides by EPA 8081B	SW-846 8081B	1	131130011A	04/27/2013 14:21	Jamie L Brillhart	1
10592	19a PCBs and PCTs 8082A	SW-846 8082A	1	131130012A	04/27/2013 02:25	Monica M Souders	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	131130012A	04/23/2013 18:00	Sally L Appleyard	1
10497	PCB Microwave Soil Extraction	SW-846 3546	2	131160002A	04/26/2013 22:15	Karen L Beyer	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	131130011A	04/23/2013 18:10	Sally L Appleyard	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	131140009A	04/26/2013 08:07	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	131140009A	04/25/2013 02:00	Sherry L Morrow	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13120002	05/01/2013 21:54	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13120002	04/30/2013 11:15	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010C	1	131150637001	04/28/2013 18:42	Tara L Snyder	1
06944	Antimony	SW-846 6010C	1	131150637001	04/28/2013 18:42	Tara L Snyder	1
06935	Arsenic	SW-846 6010C	1	131150637001	04/28/2013 18:42	Tara L Snyder	1
06946	Barium	SW-846 6010C	1	131150637001	04/28/2013 18:42	Tara L Snyder	1
06947	Beryllium	SW-846 6010C	1	131150637001	04/28/2013 18:42	Tara L Snyder	1
07914	Boron	SW-846 6010C	1	131150637001	04/28/2013 18:42	Tara L Snyder	1
06949	Cadmium	SW-846 6010C	1	131150637001	04/28/2013 18:42	Tara L Snyder	1
01650	Calcium	SW-846 6010C	1	131150637001	04/28/2013 18:42	Tara L Snyder	1
06951	Chromium	SW-846 6010C	1	131150637001	04/28/2013 18:42	Tara L Snyder	1
06952	Cobalt	SW-846 6010C	1	131150637001	04/28/2013 18:42	Tara L Snyder	1
06953	Copper	SW-846 6010C	1	131150637001	04/28/2013 18:42	Tara L Snyder	1
01654	Iron	SW-846 6010C	1	131150637001	04/28/2013 18:42	Tara L Snyder	1
06955	Lead	SW-846 6010C	1	131150637001	04/28/2013 18:42	Tara L Snyder	1
01656	Lithium	SW-846 6010C	1	131150637001	04/28/2013 18:42	Tara L Snyder	1
01657	Magnesium	SW-846 6010C	1	131150637001	04/28/2013 18:42	Tara L Snyder	1
06958	Manganese	SW-846 6010C	1	131150637001	04/28/2013 18:42	Tara L Snyder	1
06960	Molybdenum	SW-846 6010C	1	131150637001	04/28/2013 18:42	Tara L Snyder	1
06961	Nickel	SW-846 6010C	1	131150637001	04/28/2013 18:42	Tara L Snyder	1
10145	Phosphorus	SW-846 6010C	1	131150637001	04/28/2013 18:42	Tara L Snyder	1
01662	Potassium	SW-846 6010C	1	131150637001	04/28/2013 18:42	Tara L Snyder	1
01667	Sodium	SW-846 6010C	1	131150637001	04/28/2013 18:42	Tara L Snyder	1
06969	Tin	SW-846 6010C	1	131150637001	04/28/2013 18:42	Tara L Snyder	1
06970	Titanium	SW-846 6010C	1	131150637001	04/28/2013 18:42	Tara L Snyder	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-510-SA7-SB-0.0-0.5MSD Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7031215
LLI Group # 1384759
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/22/2013 08:45 by SM

Submitted: 04/23/2013 09:25
Reported: 05/06/2013 19:22

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51000 SDG#: PH036-01MSD

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06971	Vanadium	SW-846 6010C	1	131150637001	04/28/2013 18:42	Tara L Snyder	1
06972	Zinc	SW-846 6010C	1	131150637001	04/28/2013 18:42	Tara L Snyder	1
10146	Zirconium	SW-846 6010C	1	131150637001	04/28/2013 18:42	Tara L Snyder	1
06141	Selenium	SW-846 6020A	1	131150637001B	04/29/2013 08:35	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	131150637001A	04/29/2013 08:35	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	131150637001A	04/29/2013 08:35	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	131150637001A	04/29/2013 08:35	Choon Y Tian	2
00159	3a Mercury 7471A	SW-846 7471B	1	131150638001	04/26/2013 09:03	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	131150637001	04/25/2013 22:32	Annamaria Stipkovits	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	131150638001	04/26/2013 03:00	Annamaria Stipkovits	1
11625	14a Moisture Content by 160.3	EPA 160.3 modified	1	13115162401B	04/25/2013 19:23	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-510-SA7-SB-0.0-0.5DUP Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7031216
LLI Group # 1384759
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/22/2013 08:45 by SM

Submitted: 04/23/2013 09:25
Reported: 05/06/2013 19:22

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51000 SDG#: PH036-01DUP

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	15,100		41.1	7.93	1
06944	Antimony	7440-36-0	0.560	J	4.11	0.514	1
06935	Arsenic	7440-38-2	5.32		4.11	0.339	1
06946	Barium	7440-39-3	80.8		1.03	0.0339	1
06947	Beryllium	7440-41-7	0.601	J	1.03	0.0689	1
07914	Boron	7440-42-8	8.30	J	10.3	0.853	1
06949	Cadmium	7440-43-9	0.143	J	1.03	0.0339	1
01650	Calcium	7440-70-2	3,180		20.6	4.13	1
06951	Chromium	7440-47-3	21.1		3.08	0.0905	1
06952	Cobalt	7440-48-4	5.48		1.03	0.0925	1
06953	Copper	7440-50-8	13.8		2.06	0.185	1
01654	Iron	7439-89-6	24,400		41.1	3.91	1
06955	Lead	7439-92-1	45.3		3.08	0.483	1
01656	Lithium	7439-93-2	26.7		4.1	0.57	1
01657	Magnesium	7439-95-4	5,380		10.3	1.78	1
06958	Manganese	7439-96-5	309		1.03	0.0853	1
06960	Molybdenum	7439-98-7	0.326	J	2.06	0.175	1
06961	Nickel	7440-02-0	11.6		2.06	0.113	1
10145	Phosphorus	7723-14-0	455		10.3	0.524	1
01662	Potassium	7440-09-7	3,760		103	13.9	1
01667	Sodium	7440-23-5	80.5	J	103	17.2	1
06969	Tin	7440-31-5	3.36	J	10.3	0.226	1
06970	Titanium	7440-32-6	1,280		1.03	0.175	1
06971	Vanadium	7440-62-2	40.6		1.03	0.113	1
06972	Zinc	7440-66-6	64.5		4.11	0.206	1
10146	Zirconium	7440-67-7	2.87	J	5.14	0.853	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.411	U	0.411	0.103	2
06142	Silver	7440-22-4	0.0435	J	0.206	0.0206	2
06144	Strontium	7440-24-6	13.5		0.411	0.0350	2
06145	Thallium	7440-28-0	0.275		0.206	0.0308	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0147	J	0.0167	0.0104	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045C	n.a.	6.84		0.0100	0.0100	1
	The pH was measured in water at 21.7 C.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11625	14a Moisture Content by 160.3	n.a.	3.7		0.10	0.10	1
11626	14a Moisture Content by 160.3	n.a.	3.6		0.10	0.10	1
	The duplicate moisture value is provided to assess the precision of the moisture test. For comparability purposes, the initial moisture determination is the value used to perform dry weight calculations.						

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-510-SA7-SB-0.0-0.5DUP Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7031216
LLI Group # 1384759
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/22/2013 08:45 by SM

Submitted: 04/23/2013 09:25
Reported: 05/06/2013 19:22

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51000 SDG#: PH036-01DUP

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01643	Aluminum	SW-846 6010C	1	131150637001	04/28/2013 18:34	Tara L Snyder	1
06944	Antimony	SW-846 6010C	1	131150637001	04/28/2013 18:34	Tara L Snyder	1
06935	Arsenic	SW-846 6010C	1	131150637001	04/28/2013 18:34	Tara L Snyder	1
06946	Barium	SW-846 6010C	1	131150637001	04/28/2013 18:34	Tara L Snyder	1
06947	Beryllium	SW-846 6010C	1	131150637001	04/28/2013 18:34	Tara L Snyder	1
07914	Boron	SW-846 6010C	1	131150637001	04/28/2013 18:34	Tara L Snyder	1
06949	Cadmium	SW-846 6010C	1	131150637001	04/28/2013 18:34	Tara L Snyder	1
01650	Calcium	SW-846 6010C	1	131150637001	04/28/2013 18:34	Tara L Snyder	1
06951	Chromium	SW-846 6010C	1	131150637001	04/28/2013 18:34	Tara L Snyder	1
06952	Cobalt	SW-846 6010C	1	131150637001	04/28/2013 18:34	Tara L Snyder	1
06953	Copper	SW-846 6010C	1	131150637001	04/28/2013 18:34	Tara L Snyder	1
01654	Iron	SW-846 6010C	1	131150637001	04/28/2013 18:34	Tara L Snyder	1
06955	Lead	SW-846 6010C	1	131150637001	04/28/2013 18:34	Tara L Snyder	1
01656	Lithium	SW-846 6010C	1	131150637001	04/28/2013 18:34	Tara L Snyder	1
01657	Magnesium	SW-846 6010C	1	131150637001	04/28/2013 18:34	Tara L Snyder	1
06958	Manganese	SW-846 6010C	1	131150637001	04/28/2013 18:34	Tara L Snyder	1
06960	Molybdenum	SW-846 6010C	1	131150637001	04/28/2013 18:34	Tara L Snyder	1
06961	Nickel	SW-846 6010C	1	131150637001	04/28/2013 18:34	Tara L Snyder	1
10145	Phosphorus	SW-846 6010C	1	131150637001	04/28/2013 18:34	Tara L Snyder	1
01662	Potassium	SW-846 6010C	1	131150637001	04/28/2013 18:34	Tara L Snyder	1
01667	Sodium	SW-846 6010C	1	131150637001	04/28/2013 18:34	Tara L Snyder	1
06969	Tin	SW-846 6010C	1	131150637001	04/28/2013 18:34	Tara L Snyder	1
06970	Titanium	SW-846 6010C	1	131150637001	04/28/2013 18:34	Tara L Snyder	1
06971	Vanadium	SW-846 6010C	1	131150637001	04/28/2013 18:34	Tara L Snyder	1
06972	Zinc	SW-846 6010C	1	131150637001	04/28/2013 18:34	Tara L Snyder	1
10146	Zirconium	SW-846 6010C	1	131150637001	04/28/2013 18:34	Tara L Snyder	1
06141	Selenium	SW-846 6020A	1	131150637001B	04/29/2013 08:31	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	131150637001A	04/29/2013 08:31	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	131150637001A	04/29/2013 08:31	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	131150637001A	04/29/2013 08:31	Choon Y Tian	2
00159	3a Mercury 7471A	SW-846 7471B	1	131150638001	04/26/2013 08:59	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	131150637001	04/25/2013 22:32	Annamaria Stipkovits	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	131150638001	04/26/2013 03:00	Annamaria Stipkovits	1
00394	15a pH by 9045C	SW-846 9045D modified	1	13113039401A	04/23/2013 20:00	Luz M Groff	1
11625	14a Moisture Content by 160.3	EPA 160.3 modified	1	13115162401B	04/25/2013 19:23	Scott W Freisher	1
11626	14a Moisture Content by 160.3	EPA 160.3 modified	1	13115162401B	04/25/2013 19:23	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-810-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7031217
LLI Group # 1384759
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/22/2013 08:50 by SM

Submitted: 04/23/2013 09:25
Reported: 05/06/2013 19:22

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

81000 SDG#: PH036-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.69	1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.34	1
12969	Anthracene	120-12-7	1.7	U	1.7	0.34	1
12969	Benzo(a)anthracene	56-55-3	0.74	J	1.7	0.69	1
12969	Benzo(a)pyrene	50-32-8	1.0	J	1.7	0.69	1
12969	Benzo(b)fluoranthene	205-99-2	2.4		1.7	0.69	1
12969	Benzo(e)pyrene	192-97-2	18	U	18	3.4	1
12969	Benzo(g,h,i)perylene	191-24-2	0.83	J	1.7	0.69	1
12969	Benzo(k)fluoranthene	207-08-9	8.5		1.7	0.69	1
12969	Butylbenzylphthalate	85-68-7	19	U	19	6.2	1
12969	Di-n-butylphthalate	84-74-2	19	U	19	6.2	1
12969	Chrysene	218-01-9	1.9		1.7	0.34	1
12969	Dibenz(a,h)anthracene	53-70-3	1.7	U	1.7	0.69	1
12969	Diethylphthalate	84-66-2	19	U	19	6.2	1
12969	Dimethylphthalate	131-11-3	19	U	19	6.2	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	76		19	6.2	1
12969	Fluoranthene	206-44-0	2.1		1.7	0.69	1
12969	Fluorene	86-73-7	0.69	J	1.7	0.69	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	0.69	J	1.7	0.69	1
12969	1-Methylnaphthalene	90-12-0	1.7	U	1.7	0.69	1
12969	2-Methylnaphthalene	91-57-6	1.7	U	1.7	0.69	1
12969	Naphthalene	91-20-3	1.2	J	1.7	0.69	1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.69	1
12969	Di-n-octylphthalate	117-84-0	19	U	19	6.2	1
12969	Phenanthrene	85-01-8	1.3	J	1.7	0.69	1
12969	Pyrene	129-00-0	1.8		1.7	0.69	1
Pesticides/PCBs	**SW-846 8081B**		**ug/kg**		**ug/kg**	**ug/kg**	
10590	Aldrin	309-00-2	0.86	U	0.86	0.18	1
10590	Alpha BHC	319-84-6	0.86	U	0.86	0.18	1
10590	Beta BHC	319-85-7	2.0	U	2.0	0.99	1
10590	Gamma BHC - Lindane	58-89-9	0.86	U	0.86	0.18	1
10590	Chlordane	57-74-9	18	U	18	4.1	1
10590	p,p-DDD	72-54-8	1.8	U	1.8	0.34	1
10590	p,p-DDE	72-55-9	1.4	J	1.8	0.34	1
10590	p,p-DDT	50-29-3	1.8	U	1.8	0.59	1
10590	Delta BHC	319-86-8	0.86	U	0.86	0.46	1
10590	Dieldrin	60-57-1	1.8	U	1.8	0.34	1
10590	Endosulfan I	959-98-8	0.86	U	0.86	0.23	1
10590	Endosulfan II	33213-65-9	1.8	U	1.8	0.34	1
10590	Endosulfan Sulfate	1031-07-8	1.8	U	1.8	0.34	1
10590	Endrin	72-20-8	1.8	U	1.8	0.34	1
10590	Endrin Aldehyde	7421-93-4	1.8	U	1.8	0.34	1
10590	Endrin Ketone	53494-70-5	1.9	U	1.9	0.62	1
10590	Heptachlor	76-44-8	0.86	U	0.86	0.18	1
10590	Heptachlor Epoxide	1024-57-3	0.86	U	0.86	0.18	1
10590	Methoxychlor	72-43-5	6.9	U	6.9	1.8	1
10590	Mirex	2385-85-5	1.8	U	1.8	0.36	1
10590	Toxaphene	8001-35-2	34	U	34	14	1

The response for a target analyte(s) in the continuing calibration verification standard is outside the QC acceptance

*=This limit was used in the evaluation of the final result

Sample Description: SL-810-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7031217
LLI Group # 1384759
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/22/2013 08:50 by SM

Submitted: 04/23/2013 09:25
Reported: 05/06/2013 19:22

CDM Federal Programs Corp.
3201 Jermantown Road
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Fairfax VA 22030

81000 SDG#: PH036-02

limits. The following corrective action was taken:
The analysis was repeated and the continuing calibration verification standard bracketing the sample on the second trial is also outside the acceptance limits. This effect is attributed to the sample matrix and the data is reported.
Reporting limits were raised due to interference from the sample matrix.

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
10592	Aroclor 5432	63496-31-1	34	U	34	10	1
10592	Aroclor 5442	12642-23-8	34	U	34	10	1
10592	Aroclor 5460	11126-42-4	32	J	34	10	1
10592	PCB-1016	12674-11-2	17	U	17	3.4	1
10592	PCB-1221	11104-28-2	17	U	17	5.2	1
10592	PCB-1232	11141-16-5	17	U	17	4.2	1
10592	PCB-1242	53469-21-9	17	U	17	3.4	1
10592	PCB-1248	12672-29-6	17	U	17	3.4	1
10592	PCB-1254	11097-69-1	25		17	4.5	1
10592	PCB-1260	11096-82-5	17	U	17	4.0	1
10592	PCB-1262	37324-23-5	17	U	17	3.4	1
10592	PCB-1268	11100-14-4	17	U	17	3.4	1

Project defined QC acceptance limits are not met. All QC is compliant with the laboratory statistically generated limits.

GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.2	U	5.2	2.1	1
12952	EFH (C15-C20)	n.a.	5.2	U	5.2	2.1	1
12952	EFH (C21-C30)	n.a.	13		5.2	2.1	1
12952	EFH (C30-C40)	n.a.	39		10	4.1	1
12952	EFH (C8-C11)	n.a.	5.2	U	5.2	2.1	1

The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.

Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	14,600		40.8	7.87	1
06944	Antimony	7440-36-0	0.940	J	4.08	0.510	1
06935	Arsenic	7440-38-2	5.19		4.08	0.337	1
06946	Barium	7440-39-3	74.3		1.02	0.0337	1
06947	Beryllium	7440-41-7	0.589	J	1.02	0.0684	1
07914	Boron	7440-42-8	2.59	J	10.2	0.847	1
06949	Cadmium	7440-43-9	0.0868	J	1.02	0.0337	1
01650	Calcium	7440-70-2	2,670		20.4	4.10	1
06951	Chromium	7440-47-3	19.7		3.06	0.0898	1
06952	Cobalt	7440-48-4	5.14		1.02	0.0919	1
06953	Copper	7440-50-8	13.2		2.04	0.184	1
01654	Iron	7439-89-6	24,100		40.8	3.88	1
06955	Lead	7439-92-1	81.7		3.06	0.480	1
01656	Lithium	7439-93-2	26.9		4.1	0.56	1
01657	Magnesium	7439-95-4	5,060		10.2	1.77	1
06958	Manganese	7439-96-5	299		1.02	0.0847	1
06960	Molybdenum	7439-98-7	0.290	J	2.04	0.174	1
06961	Nickel	7440-02-0	10.5		2.04	0.112	1
10145	Phosphorus	7723-14-0	486		10.2	0.521	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-810-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7031217
LLI Group # 1384759
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/22/2013 08:50 by SM

Submitted: 04/23/2013 09:25
Reported: 05/06/2013 19:22

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

81000 SDG#: PH036-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01662	Potassium	7440-09-7	4,010		102	13.8	1
01667	Sodium	7440-23-5	73.3	J	102	17.0	1
06969	Tin	7440-31-5	3.05	J	10.2	0.225	1
06970	Titanium	7440-32-6	1,190		1.02	0.174	1
06971	Vanadium	7440-62-2	38.6		1.02	0.112	1
06972	Zinc	7440-66-6	69.1		4.08	0.204	1
10146	Zirconium	7440-67-7	2.72	J	5.10	0.847	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.144	J	0.408	0.102	2
06142	Silver	7440-22-4	0.0404	J	0.204	0.0204	2
06144	Strontium	7440-24-6	11.4		0.408	0.0347	2
06145	Thallium	7440-28-0	0.211		0.204	0.0306	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0219		0.0168	0.0104	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045C	n.a.	6.68		0.0100	0.0100	1
	The pH was measured in water at 21.4 C.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	3.0		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

*=This limit was used in the evaluation of the final result

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Analysis Report

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SSFL Phase 3 Subarea 7

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81000 SDG#: PH036-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	0.994	U	0.994	0.0259	1
11031	12378-PeCDD	40321-76-4	0.135	JQ	4.97	0.0284	1
11031	123478-HxCDD	39227-28-6	0.357	JQ	4.97	0.0388	1
11031	123678-HxCDD	57653-85-7	0.790	J	4.97	0.0407	1
11031	123789-HxCDD	19408-74-3	0.622	JB	4.97	0.0375	1
11031	1234678-HpCDD	35822-46-9	22.3	B	4.97	0.0368	1
11031	OCDD	3268-87-9	171	B	9.94	0.0294	1
11031	2378-TCDF	51207-31-9	0.249	JQ	0.994	0.0395	1
11031	12378-PeCDF	57117-41-6	0.591	JB	4.97	0.0200	1
11031	23478-PeCDF	57117-31-4	0.375	JB	4.97	0.0194	1
11031	123478-HxCDF	70648-26-9	0.435	JB	4.97	0.0270	1
11031	123678-HxCDF	57117-44-9	0.267	JB	4.97	0.0249	1
11031	123789-HxCDF	72918-21-9	0.111	JB	4.97	0.0300	1
11031	234678-HxCDF	60851-34-5	0.315	JB	4.97	0.0270	1
11031	1234678-HpCDF	67562-39-4	4.40	JB	4.97	0.0240	1
11031	1234789-HpCDF	55673-89-7	0.396	JB	4.97	0.0369	1
11031	OCDF	39001-02-0	11.8	B	9.94	0.0259	1
Toxic Equivalents	**EPA 1613B**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.710				1

Labeled Compounds	**%Rec**	**Windows**
13C12-2378-TCDD	76	25 - 164
13C12-12378-PeCDD	81	25 - 181
13C12-123478-HxCDD	84	32 - 141
13C12-123678-HxCDD	85	28 - 130
13C12-123789-HxCDD	84	28 - 130
13C12-1234678-HpCDD	84	23 - 140
13C12-OCDD	83	17 - 157
13C12-2378-TCDF	75	24 - 169
13C12-12378-PeCDF	82	24 - 185
13C12-23478-PeCDF	79	21 - 178
13C12-123478-HxCDF	87	26 - 152
13C12-123678-HxCDF	91	26 - 123
13C12-234678-HxCDF	86	28 - 136
13C12-123789-HxCDF	84	29 - 147
13C12-1234678-HpCDF	104	28 - 143
13C12-1234789-HpCDF	77	26 - 138
13C12-OCDF	74	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration

*=This limit was used in the evaluation of the final result

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Analysis Report

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Sample Description: SL-810-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7031217
LLI Group # 1384759
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/22/2013 08:50 by SM

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81000 SDG#: PH036-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

F *Interference is present*
S *Saturation of detection signal*

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81000 SDG#: PH036-02

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13115SLD026	04/30/2013	12:25	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	13115SLD026	04/25/2013	15:45	Nicholas W Shroyer	1
10590	20a Pesticides by EPA 8081B	SW-846 8081B	1	131130011A	04/27/2013	14:33	Jamie L Brillhart	1
10592	19a PCBs and PCTs 8082A	SW-846 8082A	1	131160002A	04/27/2013	07:20	Monica M Souders	1
10497	PCB Microwave Soil Extraction	SW-846 3546	2	131160002A	04/26/2013	22:15	Karen L Beyer	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	131130011A	04/23/2013	18:10	Sally L Appleyard	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	131140009A	04/26/2013	09:29	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	131140009A	04/25/2013	02:00	Sherry L Morrow	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13120002	05/01/2013	22:51	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13120002	04/30/2013	11:15	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010C	1	131150637001	04/28/2013	19:58	Tara L Snyder	1
06944	Antimony	SW-846 6010C	1	131150637001	04/28/2013	19:58	Tara L Snyder	1
06935	Arsenic	SW-846 6010C	1	131150637001	04/28/2013	19:58	Tara L Snyder	1
06946	Barium	SW-846 6010C	1	131150637001	04/28/2013	19:58	Tara L Snyder	1
06947	Beryllium	SW-846 6010C	1	131150637001	04/28/2013	19:58	Tara L Snyder	1
07914	Boron	SW-846 6010C	1	131150637001	04/28/2013	19:58	Tara L Snyder	1
06949	Cadmium	SW-846 6010C	1	131150637001	04/28/2013	19:58	Tara L Snyder	1
01650	Calcium	SW-846 6010C	1	131150637001	04/28/2013	19:58	Tara L Snyder	1
06951	Chromium	SW-846 6010C	1	131150637001	04/28/2013	19:58	Tara L Snyder	1
06952	Cobalt	SW-846 6010C	1	131150637001	04/28/2013	19:58	Tara L Snyder	1
06953	Copper	SW-846 6010C	1	131150637001	04/28/2013	19:58	Tara L Snyder	1
01654	Iron	SW-846 6010C	1	131150637001	04/28/2013	19:58	Tara L Snyder	1
06955	Lead	SW-846 6010C	1	131150637001	04/28/2013	19:58	Tara L Snyder	1
01656	Lithium	SW-846 6010C	1	131150637001	04/28/2013	19:58	Tara L Snyder	1
01657	Magnesium	SW-846 6010C	1	131150637001	04/28/2013	19:58	Tara L Snyder	1
06958	Manganese	SW-846 6010C	1	131150637001	04/28/2013	19:58	Tara L Snyder	1
06960	Molybdenum	SW-846 6010C	1	131150637001	04/28/2013	19:58	Tara L Snyder	1
06961	Nickel	SW-846 6010C	1	131150637001	04/28/2013	19:58	Tara L Snyder	1
10145	Phosphorus	SW-846 6010C	1	131150637001	04/28/2013	19:58	Tara L Snyder	1
01662	Potassium	SW-846 6010C	1	131150637001	04/28/2013	19:58	Tara L Snyder	1
01667	Sodium	SW-846 6010C	1	131150637001	04/28/2013	19:58	Tara L Snyder	1
06969	Tin	SW-846 6010C	1	131150637001	04/28/2013	19:58	Tara L Snyder	1
06970	Titanium	SW-846 6010C	1	131150637001	04/28/2013	19:58	Tara L Snyder	1
06971	Vanadium	SW-846 6010C	1	131150637001	04/28/2013	19:58	Tara L Snyder	1
06972	Zinc	SW-846 6010C	1	131150637001	04/28/2013	19:58	Tara L Snyder	1

*=This limit was used in the evaluation of the final result

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SSFL Phase 3 Subarea 7

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Account # 13013

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81000 SDG#: PH036-02

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10146	Zirconium	SW-846 6010C	1	131150637001	04/28/2013 19:58	Tara L Snyder	1
06141	Selenium	SW-846 6020A	1	131150637001B	04/29/2013 09:25	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	131150637001A	04/29/2013 09:25	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	131150637001A	04/29/2013 09:25	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	131150637001A	04/29/2013 09:25	Choon Y Tian	2
00159	3a Mercury 7471A	SW-846 7471B	1	131150638001	04/26/2013 09:09	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	131150637001	04/25/2013 22:32	Annamaria Stipkovits	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	131150638001	04/26/2013 03:00	Annamaria Stipkovits	1
00394	15a pH by 9045C	SW-846 9045D modified	1	13113039401A	04/23/2013 20:00	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13115162401B	04/25/2013 19:23	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-503-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7031218
LLI Group # 1384759
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/22/2013 10:45 by SM

Submitted: 04/23/2013 09:25
Reported: 05/06/2013 19:22

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

50300 SDG#: PH036-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.68	1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.34	1
12969	Anthracene	120-12-7	0.45	J	1.7	0.34	1
12969	Benzo(a)anthracene	56-55-3	1.1	J	1.7	0.68	1
12969	Benzo(a)pyrene	50-32-8	1.3	J	1.7	0.68	1
12969	Benzo(b)fluoranthene	205-99-2	3.2		1.7	0.68	1
12969	Benzo(e)pyrene	192-97-2	17	U	17	3.4	1
12969	Benzo(g,h,i)perylene	191-24-2	0.92	J	1.7	0.68	1
12969	Benzo(k)fluoranthene	207-08-9	5.3		1.7	0.68	1
12969	Butylbenzylphthalate	85-68-7	18	U	18	6.1	1
12969	Di-n-butylphthalate	84-74-2	18	U	18	6.1	1
12969	Chrysene	218-01-9	4.0		1.7	0.34	1
12969	Dibenz(a,h)anthracene	53-70-3	1.7	U	1.7	0.68	1
12969	Diethylphthalate	84-66-2	18	U	18	6.1	1
12969	Dimethylphthalate	131-11-3	18	U	18	6.1	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	8.4	J	18	6.1	1
12969	Fluoranthene	206-44-0	4.4		1.7	0.68	1
12969	Fluorene	86-73-7	1.7	U	1.7	0.68	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	0.77	J	1.7	0.68	1
12969	1-Methylnaphthalene	90-12-0	1.0	J	1.7	0.68	1
12969	2-Methylnaphthalene	91-57-6	1.6	J	1.7	0.68	1
12969	Naphthalene	91-20-3	8.7		1.7	0.68	1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.68	1
12969	Di-n-octylphthalate	117-84-0	18	U	18	6.1	1
12969	Phenanthrene	85-01-8	5.6		1.7	0.68	1
12969	Pyrene	129-00-0	3.9		1.7	0.68	1
Pesticides/PCBs	**SW-846 8081B**		**ug/kg**		**ug/kg**	**ug/kg**	
10590	Aldrin	309-00-2	0.85	U	0.85	0.17	1
10590	Alpha BHC	319-84-6	0.85	U	0.85	0.17	1
10590	Beta BHC	319-85-7	1.9	U	1.9	0.98	1
10590	Gamma BHC - Lindane	58-89-9	0.85	U	0.85	0.17	1
10590	Chlordane	57-74-9	17	U	17	4.1	1
10590	p,p-DDD	72-54-8	1.7	U	1.7	0.34	1
10590	p,p-DDE	72-55-9	1.7	U	1.7	0.34	1
10590	p,p-DDT	50-29-3	0.83	J	1.7	0.36	1
10590	Delta BHC	319-86-8	0.85	U	0.85	0.46	1
10590	Dieldrin	60-57-1	1.7	U	1.7	0.34	1
10590	Endosulfan I	959-98-8	0.85	U	0.85	0.23	1
10590	Endosulfan II	33213-65-9	1.7	U	1.7	0.34	1
10590	Endosulfan Sulfate	1031-07-8	1.7	U	1.7	0.34	1
10590	Endrin	72-20-8	1.7	U	1.7	0.34	1
10590	Endrin Aldehyde	7421-93-4	1.7	U	1.7	0.34	1
10590	Endrin Ketone	53494-70-5	1.8	U	1.8	0.61	1
10590	Heptachlor	76-44-8	0.85	U	0.85	0.17	1
10590	Heptachlor Epoxide	1024-57-3	0.85	U	0.85	0.17	1
10590	Methoxychlor	72-43-5	6.9	U	6.9	1.7	1
10590	Mirex	2385-85-5	1.7	U	1.7	0.36	1
10590	Toxaphene	8001-35-2	34	U	34	14	1

The response for a target analyte(s) in the continuing calibration verification standard is outside the QC acceptance

*=This limit was used in the evaluation of the final result

Sample Description: SL-503-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7031218
LLI Group # 1384759
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/22/2013 10:45 by SM

Submitted: 04/23/2013 09:25
Reported: 05/06/2013 19:22

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

50300 SDG#: PH036-03

limits. The following corrective action was taken:
The analysis was repeated and the continuing calibration verification standard bracketing the sample on the second trial is also outside the acceptance limits. This effect is attributed to the sample matrix and the data is reported.

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
10592	Aroclor 5432	63496-31-1	34	U	34	10	1
10592	Aroclor 5442	12642-23-8	34	U	34	10	1
10592	Aroclor 5460	11126-42-4	16	J	34	10	1
10592	PCB-1016	12674-11-2	17	U	17	3.4	1
10592	PCB-1221	11104-28-2	17	U	17	5.2	1
10592	PCB-1232	11141-16-5	17	U	17	4.2	1
10592	PCB-1242	53469-21-9	17	U	17	3.4	1
10592	PCB-1248	12672-29-6	17	U	17	3.4	1
10592	PCB-1254	11097-69-1	11	J	17	4.5	1
10592	PCB-1260	11096-82-5	17	U	17	4.0	1
10592	PCB-1262	37324-23-5	17	U	17	3.4	1
10592	PCB-1268	11100-14-4	17	U	17	3.4	1

Project defined QC acceptance limits are not met. All QC is compliant with the laboratory statistically generated limits.

GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.1	U	5.1	2.0	1
12952	EFH (C15-C20)	n.a.	2.3	J	5.1	2.0	1
12952	EFH (C21-C30)	n.a.	13		5.1	2.0	1
12952	EFH (C30-C40)	n.a.	48		10	4.1	1
12952	EFH (C8-C11)	n.a.	5.1	U	5.1	2.0	1

The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.

Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	11,100		40.5	7.81	1
06944	Antimony	7440-36-0	4.05	U	4.05	0.507	1
06935	Arsenic	7440-38-2	4.97		4.05	0.334	1
06946	Barium	7440-39-3	103		1.01	0.0334	1
06947	Beryllium	7440-41-7	0.454	J	1.01	0.0679	1
07914	Boron	7440-42-8	6.61	J	10.1	0.841	1
06949	Cadmium	7440-43-9	0.462	J	1.01	0.0334	1
01650	Calcium	7440-70-2	7,680		20.3	4.07	1
06951	Chromium	7440-47-3	16.7		3.04	0.0892	1
06952	Cobalt	7440-48-4	4.89		1.01	0.0912	1
06953	Copper	7440-50-8	13.4		2.03	0.182	1
01654	Iron	7439-89-6	19,100		40.5	3.85	1
06955	Lead	7439-92-1	23.7		3.04	0.476	1
01656	Lithium	7439-93-2	21.1		4.1	0.56	1
01657	Magnesium	7439-95-4	4,670		10.1	1.75	1
06958	Manganese	7439-96-5	310		1.01	0.0841	1
06960	Molybdenum	7439-98-7	0.331	J	2.03	0.172	1
06961	Nickel	7440-02-0	11.2		2.03	0.111	1
10145	Phosphorus	7723-14-0	561		10.1	0.517	1
01662	Potassium	7440-09-7	3,420		101	13.7	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-503-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7031218
LLI Group # 1384759
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/22/2013 10:45 by SM

Submitted: 04/23/2013 09:25
Reported: 05/06/2013 19:22

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

50300 SDG#: PH036-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01667	Sodium	7440-23-5	70.3	J	101	16.9	1
06969	Tin	7440-31-5	2.92	J	10.1	0.223	1
06970	Titanium	7440-32-6	926		1.01	0.172	1
06971	Vanadium	7440-62-2	32.2		1.01	0.111	1
06972	Zinc	7440-66-6	71.9		4.05	0.203	1
10146	Zirconium	7440-67-7	2.45	J	5.07	0.841	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.131	J	0.405	0.101	2
06142	Silver	7440-22-4	0.0521	J	0.203	0.0203	2
06144	Strontium	7440-24-6	37.0		0.405	0.0345	2
06145	Thallium	7440-28-0	0.220		0.203	0.0304	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0293		0.0162	0.0100	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045C	n.a.	7.88		0.0100	0.0100	1
	The pH was measured in water at 21.4 C.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	2.3		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-503-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7031218
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CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

50300 SDG#: PH036-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0642	JQ	0.998	0.0291	1
11031	12378-PeCDD	40321-76-4	0.335	J	4.99	0.0396	1
11031	123478-HxCDD	39227-28-6	0.442	J	4.99	0.0245	1
11031	123678-HxCDD	57653-85-7	1.09	JQ	4.99	0.0246	1
11031	123789-HxCDD	19408-74-3	1.00	JB	4.99	0.0232	1
11031	1234678-HpCDD	35822-46-9	25.0	B	4.99	0.0324	1
11031	OCDD	3268-87-9	192	B	9.98	0.0233	1
11031	2378-TCDF	51207-31-9	0.815	J	0.998	0.0465	1
11031	12378-PeCDF	57117-41-6	0.856	JB	4.99	0.0213	1
11031	23478-PeCDF	57117-31-4	0.547	JB	4.99	0.0206	1
11031	123478-HxCDF	70648-26-9	0.420	JB	4.99	0.0228	1
11031	123678-HxCDF	57117-44-9	0.402	JB	4.99	0.0212	1
11031	123789-HxCDF	72918-21-9	0.141	JB	4.99	0.0241	1
11031	234678-HxCDF	60851-34-5	0.309	JB	4.99	0.0220	1
11031	1234678-HpCDF	67562-39-4	2.35	JB	4.99	0.0240	1
11031	1234789-HpCDF	55673-89-7	0.247	JB	4.99	0.0357	1
11031	OCDF	39001-02-0	4.30	JB	9.98	0.0227	1
Toxic Equivalents	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	1.21				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	77	25 - 164
13C12-12378-PeCDD	82	25 - 181
13C12-123478-HxCDD	85	32 - 141
13C12-123678-HxCDD	85	28 - 130
13C12-123789-HxCDD	84	28 - 130
13C12-1234678-HpCDD	83	23 - 140
13C12-OCDD	83	17 - 157
13C12-2378-TCDF	74	24 - 169
13C12-12378-PeCDF	81	24 - 185
13C12-23478-PeCDF	79	21 - 178
13C12-123478-HxCDF	85	26 - 152
13C12-123678-HxCDF	90	26 - 123
13C12-234678-HxCDF	84	28 - 136
13C12-123789-HxCDF	84	29 - 147
13C12-1234678-HpCDF	101	28 - 143
13C12-1234789-HpCDF	76	26 - 138
13C12-OCDF	73	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration

*=This limit was used in the evaluation of the final result

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Analysis Report

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Sample Description: SL-503-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7031218
LLI Group # 1384759
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/22/2013 10:45 by SM

Submitted: 04/23/2013 09:25
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CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

50300 SDG#: PH036-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-503-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7031218
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Fairfax VA 22030

50300 SDG#: PH036-03

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13115SLD026	04/30/2013	12:56	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	13115SLD026	04/25/2013	15:45	Nicholas W Shroyer	1
10590	20a Pesticides by EPA 8081B	SW-846 8081B	1	131130011A	04/27/2013	14:45	Jamie L Brillhart	1
10592	19a PCBs and PCTs 8082A	SW-846 8082A	1	131160002A	04/27/2013	07:38	Monica M Souders	1
10497	PCB Microwave Soil Extraction	SW-846 3546	2	131160002A	04/26/2013	22:15	Karen L Beyer	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	131130011A	04/23/2013	18:10	Sally L Appleyard	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	131140009A	04/26/2013	08:48	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	131140009A	04/25/2013	02:00	Sherry L Morrow	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13120002	05/01/2013	23:47	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13120002	04/30/2013	11:15	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010C	1	131150637001	04/28/2013	20:02	Tara L Snyder	1
06944	Antimony	SW-846 6010C	1	131150637001	04/28/2013	20:02	Tara L Snyder	1
06935	Arsenic	SW-846 6010C	1	131150637001	04/28/2013	20:02	Tara L Snyder	1
06946	Barium	SW-846 6010C	1	131150637001	04/28/2013	20:02	Tara L Snyder	1
06947	Beryllium	SW-846 6010C	1	131150637001	04/28/2013	20:02	Tara L Snyder	1
07914	Boron	SW-846 6010C	1	131150637001	04/28/2013	20:02	Tara L Snyder	1
06949	Cadmium	SW-846 6010C	1	131150637001	04/28/2013	20:02	Tara L Snyder	1
01650	Calcium	SW-846 6010C	1	131150637001	04/28/2013	20:02	Tara L Snyder	1
06951	Chromium	SW-846 6010C	1	131150637001	04/28/2013	20:02	Tara L Snyder	1
06952	Cobalt	SW-846 6010C	1	131150637001	04/28/2013	20:02	Tara L Snyder	1
06953	Copper	SW-846 6010C	1	131150637001	04/28/2013	20:02	Tara L Snyder	1
01654	Iron	SW-846 6010C	1	131150637001	04/28/2013	20:02	Tara L Snyder	1
06955	Lead	SW-846 6010C	1	131150637001	04/28/2013	20:02	Tara L Snyder	1
01656	Lithium	SW-846 6010C	1	131150637001	04/28/2013	20:02	Tara L Snyder	1
01657	Magnesium	SW-846 6010C	1	131150637001	04/28/2013	20:02	Tara L Snyder	1
06958	Manganese	SW-846 6010C	1	131150637001	04/28/2013	20:02	Tara L Snyder	1
06960	Molybdenum	SW-846 6010C	1	131150637001	04/28/2013	20:02	Tara L Snyder	1
06961	Nickel	SW-846 6010C	1	131150637001	04/28/2013	20:02	Tara L Snyder	1
10145	Phosphorus	SW-846 6010C	1	131150637001	04/28/2013	20:02	Tara L Snyder	1
01662	Potassium	SW-846 6010C	1	131150637001	04/28/2013	20:02	Tara L Snyder	1
01667	Sodium	SW-846 6010C	1	131150637001	04/28/2013	20:02	Tara L Snyder	1
06969	Tin	SW-846 6010C	1	131150637001	04/28/2013	20:02	Tara L Snyder	1
06970	Titanium	SW-846 6010C	1	131150637001	04/28/2013	20:02	Tara L Snyder	1
06971	Vanadium	SW-846 6010C	1	131150637001	04/28/2013	20:02	Tara L Snyder	1
06972	Zinc	SW-846 6010C	1	131150637001	04/28/2013	20:02	Tara L Snyder	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-503-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7031218
LLI Group # 1384759
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/22/2013 10:45 by SM

Submitted: 04/23/2013 09:25
Reported: 05/06/2013 19:22

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

50300 SDG#: PH036-03

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10146	Zirconium	SW-846 6010C	1	131150637001	04/28/2013 20:02	Tara L Snyder	1
06141	Selenium	SW-846 6020A	1	131150637001B	04/29/2013 09:28	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	131150637001A	04/29/2013 09:28	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	131150637001A	04/29/2013 09:28	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	131150637001A	04/29/2013 09:28	Choon Y Tian	2
00159	3a Mercury 7471A	SW-846 7471B	1	131150638001	04/26/2013 09:11	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	131150637001	04/25/2013 22:32	Annamaria Stipkovits	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	131150638001	04/26/2013 03:00	Annamaria Stipkovits	1
00394	15a pH by 9045C	SW-846 9045D modified	1	13113039401A	04/23/2013 20:00	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13115162401B	04/25/2013 19:23	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-504-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7031219
LLI Group # 1384759
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/22/2013 12:50 by SM

Submitted: 04/23/2013 09:25
Reported: 05/06/2013 19:22

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

50400 SDG#: PH036-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	17	U	17	6.9	10
12969	Acenaphthylene	208-96-8	17	U	17	3.4	10
12969	Anthracene	120-12-7	17	U	17	3.4	10
12969	Benzo(a)anthracene	56-55-3	17	U	17	6.9	10
12969	Benzo(a)pyrene	50-32-8	17	U	17	6.9	10
12969	Benzo(b)fluoranthene	205-99-2	8.7	J	17	6.9	10
12969	Benzo(e)pyrene	192-97-2	180	U	180	34	10
12969	Benzo(g,h,i)perylene	191-24-2	17	U	17	6.9	10
12969	Benzo(k)fluoranthene	207-08-9	52		17	6.9	10
12969	Butylbenzylphthalate	85-68-7	190	U	190	62	10
12969	Di-n-butylphthalate	84-74-2	190	U	190	62	10
12969	Chrysene	218-01-9	8.2	J	17	3.4	10
12969	Dibenz(a,h)anthracene	53-70-3	17	U	17	6.9	10
12969	Diethylphthalate	84-66-2	190	U	190	62	10
12969	Dimethylphthalate	131-11-3	190	U	190	62	10
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	190	U	190	62	10
12969	Fluoranthene	206-44-0	10	J	17	6.9	10
12969	Fluorene	86-73-7	17	U	17	6.9	10
12969	Indeno(1,2,3-cd)pyrene	193-39-5	17	U	17	6.9	10
12969	1-Methylnaphthalene	90-12-0	17	U	17	6.9	10
12969	2-Methylnaphthalene	91-57-6	17	U	17	6.9	10
12969	Naphthalene	91-20-3	17	U	17	6.9	10
12969	N-Nitrosodimethylamine	62-75-9	17	U	17	6.9	10
12969	Di-n-octylphthalate	117-84-0	190	U	190	62	10
12969	Phenanthrene	85-01-8	17	U	17	6.9	10
12969	Pyrene	129-00-0	8.7	J	17	6.9	10
Pesticides/PCBs	**SW-846 8081B**		**ug/kg**		**ug/kg**	**ug/kg**	
10590	Aldrin	309-00-2	0.86	U	0.86	0.18	1
10590	Alpha BHC	319-84-6	0.86	U	0.86	0.18	1
10590	Beta BHC	319-85-7	2.0	U	2.0	0.99	1
10590	Gamma BHC - Lindane	58-89-9	0.86	U	0.86	0.18	1
10590	Chlordane	57-74-9	18	U	18	4.1	1
10590	p,p-DDD	72-54-8	1.8	U	1.8	0.34	1
10590	p,p-DDE	72-55-9	1.9	U	1.9	1.9	1
10590	p,p-DDT	50-29-3	5.1	U	5.1	5.1	1
10590	Delta BHC	319-86-8	0.86	U	0.86	0.46	1
10590	Dieldrin	60-57-1	1.8	U	1.8	0.42	1
10590	Endosulfan I	959-98-8	0.86	U	0.86	0.23	1
10590	Endosulfan II	33213-65-9	1.8	U	1.8	0.34	1
10590	Endosulfan Sulfate	1031-07-8	1.8	U	1.8	0.34	1
10590	Endrin	72-20-8	1.8	U	1.8	0.40	1
10590	Endrin Aldehyde	7421-93-4	1.8	U	1.8	0.34	1
10590	Endrin Ketone	53494-70-5	1.9	U	1.9	0.62	1
10590	Heptachlor	76-44-8	0.86	U	0.86	0.18	1
10590	Heptachlor Epoxide	1024-57-3	0.86	U	0.86	0.39	1
10590	Methoxychlor	72-43-5	6.9	U	6.9	1.8	1
10590	Mirex	2385-85-5	1.8	U	1.8	0.36	1
10590	Toxaphene	8001-35-2	34	U	34	14	1

The response for a target analyte(s) in the continuing calibration verification standard is outside the QC acceptance

*=This limit was used in the evaluation of the final result

Sample Description: SL-504-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7031219
LLI Group # 1384759
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/22/2013 12:50 by SM

Submitted: 04/23/2013 09:25
Reported: 05/06/2013 19:22

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

50400 SDG#: PH036-04

limits. The following corrective action was taken:
The analysis was repeated and the continuing calibration verification standard bracketing the sample on the second trial is also outside the acceptance limits. This effect is attributed to the sample matrix and the data is reported.
Reporting limits were raised due to interference from the sample matrix.

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
10592	Aroclor 5432	63496-31-1	34	U	34	10	1
10592	Aroclor 5442	12642-23-8	34	U	34	10	1
10592	Aroclor 5460	11126-42-4	57		34	10	1
10592	PCB-1016	12674-11-2	18	U	18	3.4	1
10592	PCB-1221	11104-28-2	18	U	18	5.3	1
10592	PCB-1232	11141-16-5	18	U	18	4.2	1
10592	PCB-1242	53469-21-9	18	U	18	3.4	1
10592	PCB-1248	12672-29-6	18	U	18	3.4	1
10592	PCB-1254	11097-69-1	41		18	4.5	1
10592	PCB-1260	11096-82-5	18	U	18	4.0	1
10592	PCB-1262	37324-23-5	18	U	18	3.4	1
10592	PCB-1268	11100-14-4	18	U	18	3.4	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	26	U	26	10	5
12952	EFH (C15-C20)	n.a.	26	U	26	10	5
12952	EFH (C21-C30)	n.a.	77		26	10	5
12952	EFH (C30-C40)	n.a.	230		52	21	5
12952	EFH (C8-C11)	n.a.	26	U	26	10	5

The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.

Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	12,200		39.7	7.64	1
06944	Antimony	7440-36-0	0.866	J	3.97	0.496	1
06935	Arsenic	7440-38-2	5.04		3.97	0.327	1
06946	Barium	7440-39-3	86.9		0.991	0.0327	1
06947	Beryllium	7440-41-7	0.515	J	0.991	0.0664	1
07914	Boron	7440-42-8	2.39	J	9.91	0.823	1
06949	Cadmium	7440-43-9	0.239	J	0.991	0.0327	1
01650	Calcium	7440-70-2	4,370		19.8	3.98	1
06951	Chromium	7440-47-3	23.7		2.97	0.0872	1
06952	Cobalt	7440-48-4	5.25		0.991	0.0892	1
06953	Copper	7440-50-8	14.9		1.98	0.178	1
01654	Iron	7439-89-6	25,100		39.7	3.77	1
06955	Lead	7439-92-1	11.3		2.97	0.466	1
01656	Lithium	7439-93-2	26.6		4.0	0.55	1
01657	Magnesium	7439-95-4	5,290		9.91	1.71	1
06958	Manganese	7439-96-5	287		0.991	0.0823	1
06960	Molybdenum	7439-98-7	0.279	J	1.98	0.169	1
06961	Nickel	7440-02-0	12.8		1.98	0.109	1
10145	Phosphorus	7723-14-0	495		9.91	0.506	1
01662	Potassium	7440-09-7	3,580		99.1	13.4	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-504-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7031219
LLI Group # 1384759
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/22/2013 12:50 by SM

Submitted: 04/23/2013 09:25
Reported: 05/06/2013 19:22

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

50400 SDG#: PH036-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01667	Sodium	7440-23-5	107		99.1	16.6	1
06969	Tin	7440-31-5	3.18	J	9.91	0.218	1
06970	Titanium	7440-32-6	1,200		0.991	0.169	1
06971	Vanadium	7440-62-2	47.8		0.991	0.109	1
06972	Zinc	7440-66-6	115		3.97	0.198	1
10146	Zirconium	7440-67-7	2.35	J	4.96	0.823	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.397	U	0.397	0.0991	2
06142	Silver	7440-22-4	0.0222	J	0.198	0.0198	2
06144	Strontium	7440-24-6	15.8		0.397	0.0337	2
06145	Thallium	7440-28-0	0.241		0.198	0.0297	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0197		0.0166	0.0103	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045C	n.a.	7.96		0.0100	0.0100	1
	The pH was measured in water at 21.6 C.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	3.0		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

*=This limit was used in the evaluation of the final result

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Analysis Report

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LLI Sample # SW 7031219
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Project Name: Phase 3 Subarea 7

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CDM Federal Programs Corp.
3201 Jermantown Road
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50400 SDG#: PH036-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0782	J	1.03	0.0251	1
11031	12378-PeCDD	40321-76-4	1.13	J	5.13	0.0473	1
11031	123478-HxCDD	39227-28-6	3.10	J	5.13	0.0381	1
11031	123678-HxCDD	57653-85-7	7.06		5.13	0.0374	1
11031	123789-HxCDD	19408-74-3	5.53	B	5.13	0.0358	1
11031	1234678-HpCDD	35822-46-9	214	B	5.13	0.0604	1
11031	OCDD	3268-87-9	1,470	B	10.3	0.0410	1
11031	2378-TCDF	51207-31-9	1.04	C	1.03	0.0577	1
11031	12378-PeCDF	57117-41-6	1.35	JB	5.13	0.0266	1
11031	23478-PeCDF	57117-31-4	0.950	JB	5.13	0.0248	1
11031	123478-HxCDF	70648-26-9	1.49	JB	5.13	0.0398	1
11031	123678-HxCDF	57117-44-9	1.22	JB	5.13	0.0383	1
11031	123789-HxCDF	72918-21-9	5.13	U	5.13	0.0392	1
11031	234678-HxCDF	60851-34-5	1.70	JB	5.13	0.0373	1
11031	1234678-HpCDF	67562-39-4	36.6	B	5.13	0.0381	1
11031	1234789-HpCDF	55673-89-7	2.32	JB	5.13	0.0471	1
11031	OCDF	39001-02-0	108	B	10.3	0.0270	1
Toxic Equivalents	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	6.64				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	84	25 - 164
13C12-12378-PeCDD	83	25 - 181
13C12-123478-HxCDD	85	32 - 141
13C12-123678-HxCDD	87	28 - 130
13C12-123789-HxCDD	85	28 - 130
13C12-1234678-HpCDD	85	23 - 140
13C12-OCDD	88	17 - 157
13C12-2378-TCDF	82	24 - 169
13C12-12378-PeCDF	83	24 - 185
13C12-23478-PeCDF	83	21 - 178
13C12-123478-HxCDF	91	26 - 152
13C12-123678-HxCDF	91	26 - 123
13C12-234678-HxCDF	89	28 - 136
13C12-123789-HxCDF	93	29 - 147
13C12-1234678-HpCDF	95	28 - 143
13C12-1234789-HpCDF	87	26 - 138
13C12-OCDF	88	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration

*=This limit was used in the evaluation of the final result

Sample Description: SL-504-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7031219
LLI Group # 1384759
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/22/2013 12:50 by SM

Submitted: 04/23/2013 09:25
Reported: 05/06/2013 19:22

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

50400 SDG#: PH036-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-504-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7031219
LLI Group # 1384759
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/22/2013 12:50 by SM

Submitted: 04/23/2013 09:25
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Fairfax VA 22030

50400 SDG#: PH036-04

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13115SLD026	04/30/2013	13:27	Mark A Clark	10
10811	BNA Soil Microwave SIM	SW-846 3546	1	13115SLD026	04/25/2013	15:45	Nicholas W Shroyer	1
10590	20a Pesticides by EPA 8081B	SW-846 8081B	1	131130011A	04/27/2013	14:57	Jamie L Brillhart	1
10592	19a PCBs and PCTs 8082A	SW-846 8082A	1	131130012A	04/27/2013	02:43	Monica M Souders	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	131130012A	04/23/2013	18:00	Sally L Appleyard	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	131130011A	04/23/2013	18:10	Sally L Appleyard	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	131140009A	04/26/2013	13:38	Heather E Williams	5
12959	EFH soil ext.(microwave)	SW-846 3546	1	131140009A	04/25/2013	02:00	Sherry L Morrow	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13120002	05/02/2013	00:44	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13120002	04/30/2013	11:15	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010C	1	131150637001	04/28/2013	20:06	Tara L Snyder	1
06944	Antimony	SW-846 6010C	1	131150637001	04/28/2013	20:06	Tara L Snyder	1
06935	Arsenic	SW-846 6010C	1	131150637001	04/28/2013	20:06	Tara L Snyder	1
06946	Barium	SW-846 6010C	1	131150637001	04/28/2013	20:06	Tara L Snyder	1
06947	Beryllium	SW-846 6010C	1	131150637001	04/28/2013	20:06	Tara L Snyder	1
07914	Boron	SW-846 6010C	1	131150637001	04/28/2013	20:06	Tara L Snyder	1
06949	Cadmium	SW-846 6010C	1	131150637001	04/28/2013	20:06	Tara L Snyder	1
01650	Calcium	SW-846 6010C	1	131150637001	04/28/2013	20:06	Tara L Snyder	1
06951	Chromium	SW-846 6010C	1	131150637001	04/28/2013	20:06	Tara L Snyder	1
06952	Cobalt	SW-846 6010C	1	131150637001	04/28/2013	20:06	Tara L Snyder	1
06953	Copper	SW-846 6010C	1	131150637001	04/28/2013	20:06	Tara L Snyder	1
01654	Iron	SW-846 6010C	1	131150637001	04/28/2013	20:06	Tara L Snyder	1
06955	Lead	SW-846 6010C	1	131150637001	04/28/2013	20:06	Tara L Snyder	1
01656	Lithium	SW-846 6010C	1	131150637001	04/28/2013	20:06	Tara L Snyder	1
01657	Magnesium	SW-846 6010C	1	131150637001	04/28/2013	20:06	Tara L Snyder	1
06958	Manganese	SW-846 6010C	1	131150637001	04/28/2013	20:06	Tara L Snyder	1
06960	Molybdenum	SW-846 6010C	1	131150637001	04/28/2013	20:06	Tara L Snyder	1
06961	Nickel	SW-846 6010C	1	131150637001	04/28/2013	20:06	Tara L Snyder	1
10145	Phosphorus	SW-846 6010C	1	131150637001	04/28/2013	20:06	Tara L Snyder	1
01662	Potassium	SW-846 6010C	1	131150637001	04/28/2013	20:06	Tara L Snyder	1
01667	Sodium	SW-846 6010C	1	131150637001	04/28/2013	20:06	Tara L Snyder	1
06969	Tin	SW-846 6010C	1	131150637001	04/28/2013	20:06	Tara L Snyder	1
06970	Titanium	SW-846 6010C	1	131150637001	04/28/2013	20:06	Tara L Snyder	1
06971	Vanadium	SW-846 6010C	1	131150637001	04/28/2013	20:06	Tara L Snyder	1
06972	Zinc	SW-846 6010C	1	131150637001	04/28/2013	20:06	Tara L Snyder	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-504-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7031219
LLI Group # 1384759
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/22/2013 12:50 by SM

Submitted: 04/23/2013 09:25
Reported: 05/06/2013 19:22

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

50400 SDG#: PH036-04

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10146	Zirconium	SW-846 6010C	1	131150637001	04/28/2013 20:06	Tara L Snyder	1
06141	Selenium	SW-846 6020A	1	131150637001B	04/29/2013 09:30	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	131150637001A	04/29/2013 09:30	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	131150637001A	04/29/2013 09:30	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	131150637001A	04/29/2013 09:30	Choon Y Tian	2
00159	3a Mercury 7471A	SW-846 7471B	1	131150638001	04/26/2013 09:13	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	131150637001	04/25/2013 22:32	Annamaria Stipkovits	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	131150638001	04/26/2013 03:00	Annamaria Stipkovits	1
00394	15a pH by 9045C	SW-846 9045D modified	1	13113039401A	04/23/2013 20:00	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13115162401B	04/25/2013 19:23	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-504-SA7-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7031220
LLI Group # 1384759
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/22/2013 13:55 by SM

Submitted: 04/23/2013 09:25
Reported: 05/06/2013 19:22

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

50445 SDG#: PH036-05

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.8	U	1.8	0.71	1
12969	Acenaphthylene	208-96-8	1.8	U	1.8	0.35	1
12969	Anthracene	120-12-7	1.8	U	1.8	0.35	1
12969	Benzo(a)anthracene	56-55-3	1.8	U	1.8	0.71	1
12969	Benzo(a)pyrene	50-32-8	0.85	J	1.8	0.71	1
12969	Benzo(b)fluoranthene	205-99-2	1.8		1.8	0.71	1
12969	Benzo(e)pyrene	192-97-2	18	U	18	3.5	1
12969	Benzo(g,h,i)perylene	191-24-2	0.74	J	1.8	0.71	1
12969	Benzo(k)fluoranthene	207-08-9	12		1.8	0.71	1
12969	Butylbenzylphthalate	85-68-7	19	U	19	6.3	1
12969	Di-n-butylphthalate	84-74-2	19	U	19	6.3	1
12969	Chrysene	218-01-9	2.2		1.8	0.35	1
12969	Dibenz(a,h)anthracene	53-70-3	1.8	U	1.8	0.71	1
12969	Diethylphthalate	84-66-2	19	U	19	6.3	1
12969	Dimethylphthalate	131-11-3	19	U	19	6.3	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	6.6	J	19	6.3	1
12969	Fluoranthene	206-44-0	1.3	J	1.8	0.71	1
12969	Fluorene	86-73-7	0.86	J	1.8	0.71	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.8	U	1.8	0.71	1
12969	1-Methylnaphthalene	90-12-0	1.8	U	1.8	0.71	1
12969	2-Methylnaphthalene	91-57-6	1.8	U	1.8	0.71	1
12969	Naphthalene	91-20-3	1.8	U	1.8	0.71	1
12969	N-Nitrosodimethylamine	62-75-9	1.8	U	1.8	0.71	1
12969	Di-n-octylphthalate	117-84-0	19	U	19	6.3	1
12969	Phenanthrene	85-01-8	0.84	J	1.8	0.71	1
12969	Pyrene	129-00-0	1.1	J	1.8	0.71	1
GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	1	U	1	0.2	23.15
Pesticides/PCBs	**SW-846 8081B**		**ug/kg**		**ug/kg**	**ug/kg**	
10590	Aldrin	309-00-2	0.88	U	0.88	0.18	1
10590	Alpha BHC	319-84-6	0.88	U	0.88	0.31	1
10590	Beta BHC	319-85-7	2.0	U	2.0	1.0	1
10590	Gamma BHC - Lindane	58-89-9	0.88	U	0.88	0.18	1
10590	Chlordane	57-74-9	18	U	18	4.2	1
10590	p,p-DDD	72-54-8	1.8	U	1.8	0.35	1
10590	p,p-DDE	72-55-9	1.8	U	1.8	1.5	1
10590	p,p-DDT	50-29-3	4.0		1.8	0.37	1
10590	Delta BHC	319-86-8	0.88	U	0.88	0.48	1
10590	Dieldrin	60-57-1	1.8	U	1.8	0.72	1
10590	Endosulfan I	959-98-8	0.88	U	0.88	0.23	1
10590	Endosulfan II	33213-65-9	1.8	U	1.8	0.35	1
10590	Endosulfan Sulfate	1031-07-8	1.8	U	1.8	0.35	1
10590	Endrin	72-20-8	1.8	U	1.8	0.35	1
10590	Endrin Aldehyde	7421-93-4	1.8	U	1.8	0.35	1
10590	Endrin Ketone	53494-70-5	1.9	U	1.9	0.63	1
10590	Heptachlor	76-44-8	0.88	U	0.88	0.18	1
10590	Heptachlor Epoxide	1024-57-3	0.88	U	0.88	0.65	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-504-SA7-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7031220
LLI Group # 1384759
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/22/2013 13:55 by SM

Submitted: 04/23/2013 09:25
Reported: 05/06/2013 19:22

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

50445 SDG#: PH036-05

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs	**SW-846 8081B**		**ug/kg**		**ug/kg**	**ug/kg**	
10590	Methoxychlor	72-43-5	7.1	U	7.1	1.8	1
10590	Mirex	2385-85-5	1.8	U	1.8	0.37	1
10590	Toxaphene	8001-35-2	35	U	35	15	1

The response for a target analyte(s) in the continuing calibration verification standard is outside the QC acceptance limits. The following corrective action was taken:
The analysis was repeated and the continuing calibration verification standard bracketing the sample on the second trial is also outside the acceptance limits. This effect is attributed to the sample matrix and the data is reported.
Reporting limits were raised due to interference from the sample matrix.

Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
10592	Aroclor 5432	63496-31-1	35	U	35	10	1
10592	Aroclor 5442	12642-23-8	35	U	35	10	1
10592	Aroclor 5460	11126-42-4	13	J	35	10	1
10592	PCB-1016	12674-11-2	18	U	18	3.5	1
10592	PCB-1221	11104-28-2	18	U	18	5.3	1
10592	PCB-1232	11141-16-5	18	U	18	4.3	1
10592	PCB-1242	53469-21-9	18	U	18	3.5	1
10592	PCB-1248	12672-29-6	18	U	18	3.5	1
10592	PCB-1254	11097-69-1	8.3	J	18	4.6	1
10592	PCB-1260	11096-82-5	18	U	18	4.1	1
10592	PCB-1262	37324-23-5	18	U	18	3.5	1
10592	PCB-1268	11100-14-4	18	U	18	3.5	1

Project defined QC acceptance limits are not met. All QC is compliant with the laboratory statistically generated limits.

GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.3	U	5.3	2.1	1
12952	EFH (C15-C20)	n.a.	4.7	J	5.3	2.1	1
12952	EFH (C21-C30)	n.a.	57		5.3	2.1	1
12952	EFH (C30-C40)	n.a.	77		11	4.2	1
12952	EFH (C8-C11)	n.a.	5.3	U	5.3	2.1	1

The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.

Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	15,700		41.5	8.00	1
06944	Antimony	7440-36-0	0.826	J	4.15	0.519	1
06935	Arsenic	7440-38-2	5.06		4.15	0.342	1
06946	Barium	7440-39-3	82.5		1.04	0.0342	1
06947	Beryllium	7440-41-7	0.657	J	1.04	0.0695	1
07914	Boron	7440-42-8	1.56	J	10.4	0.861	1
06949	Cadmium	7440-43-9	0.0757	J	1.04	0.0342	1
01650	Calcium	7440-70-2	2,380		20.7	4.17	1
06951	Chromium	7440-47-3	18.3		3.11	0.0913	1
06952	Cobalt	7440-48-4	4.82		1.04	0.0934	1
06953	Copper	7440-50-8	12.4		2.07	0.187	1
01654	Iron	7439-89-6	24,800		41.5	3.94	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-504-SA7-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7031220
LLI Group # 1384759
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/22/2013 13:55 by SM

Submitted: 04/23/2013 09:25
Reported: 05/06/2013 19:22

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

50445 SDG#: PH036-05

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
06955	Lead	7439-92-1	7.48		3.11	0.488	1
01656	Lithium	7439-93-2	26.4		4.1	0.57	1
01657	Magnesium	7439-95-4	4,540		10.4	1.79	1
06958	Manganese	7439-96-5	265		1.04	0.0861	1
06960	Molybdenum	7439-98-7	0.289	J	2.07	0.176	1
06961	Nickel	7440-02-0	10.3		2.07	0.114	1
10145	Phosphorus	7723-14-0	339		10.4	0.529	1
01662	Potassium	7440-09-7	3,060		104	14.0	1
01667	Sodium	7440-23-5	98.1	J	104	17.3	1
06969	Tin	7440-31-5	3.42	J	10.4	0.228	1
06970	Titanium	7440-32-6	1,180		1.04	0.176	1
06971	Vanadium	7440-62-2	35.4		1.04	0.114	1
06972	Zinc	7440-66-6	62.0		4.15	0.207	1
10146	Zirconium	7440-67-7	2.53	J	5.19	0.861	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.415	U	0.415	0.104	2
06142	Silver	7440-22-4	0.0686	J	0.207	0.0207	2
06144	Strontium	7440-24-6	16.3		0.415	0.0353	2
06145	Thallium	7440-28-0	0.231		0.207	0.0311	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0170	J	0.0175	0.0108	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045C	n.a.	7.33		0.0100	0.0100	1
	The pH was measured in water at 21.5 C.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	5.5		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-504-SA7-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7031220
LLI Group # 1384759
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/22/2013 13:55 by SM

Submitted: 04/23/2013 09:25
Reported: 05/06/2013 19:22

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

50445 SDG#: PH036-05

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	1.04	U	1.04	0.0195	1
11031	12378-PeCDD	40321-76-4	0.163	J	5.20	0.0254	1
11031	123478-HxCDD	39227-28-6	0.329	JQ	5.20	0.0280	1
11031	123678-HxCDD	57653-85-7	0.835	J	5.20	0.0286	1
11031	123789-HxCDD	19408-74-3	0.755	JB	5.20	0.0275	1
11031	1234678-HpCDD	35822-46-9	21.2	B	5.20	0.0275	1
11031	OCDD	3268-87-9	153	B	10.4	0.0222	1
11031	2378-TCDF	51207-31-9	0.133	J	1.04	0.0306	1
11031	12378-PeCDF	57117-41-6	0.203	JBQ	5.20	0.0152	1
11031	23478-PeCDF	57117-31-4	0.187	JB	5.20	0.0145	1
11031	123478-HxCDF	70648-26-9	0.235	JBQ	5.20	0.0240	1
11031	123678-HxCDF	57117-44-9	0.206	JBQ	5.20	0.0232	1
11031	123789-HxCDF	72918-21-9	0.181	JB	5.20	0.0246	1
11031	234678-HxCDF	60851-34-5	0.255	JBQ	5.20	0.0227	1
11031	1234678-HpCDF	67562-39-4	3.96	JB	5.20	0.0236	1
11031	1234789-HpCDF	55673-89-7	0.313	JBQ	5.20	0.0322	1
11031	OCDF	39001-02-0	11.1	B	10.4	0.0227	1
Toxic Equivalents	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.711				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	75	25 - 164
13C12-12378-PeCDD	78	25 - 181
13C12-123478-HxCDD	83	32 - 141
13C12-123678-HxCDD	84	28 - 130
13C12-123789-HxCDD	81	28 - 130
13C12-1234678-HpCDD	82	23 - 140
13C12-OCDD	81	17 - 157
13C12-2378-TCDF	71	24 - 169
13C12-12378-PeCDF	79	24 - 185
13C12-23478-PeCDF	77	21 - 178
13C12-123478-HxCDF	84	26 - 152
13C12-123678-HxCDF	87	26 - 123
13C12-234678-HxCDF	84	28 - 136
13C12-123789-HxCDF	87	29 - 147
13C12-1234678-HpCDF	95	28 - 143
13C12-1234789-HpCDF	79	26 - 138
13C12-OCDF	76	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration

*=This limit was used in the evaluation of the final result

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Analysis Report

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Sample Description: SL-504-SA7-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7031220
LLI Group # 1384759
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/22/2013 13:55 by SM

Submitted: 04/23/2013 09:25
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3201 Jermantown Road
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Fairfax VA 22030

50445 SDG#: PH036-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-504-SA7-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7031220
LLI Group # 1384759
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/22/2013 13:55 by SM

Submitted: 04/23/2013 09:25
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CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

50445 SDG#: PH036-05

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13115SLD026	04/30/2013	13:59	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	13115SLD026	04/25/2013	15:45	Nicholas W Shroyer	1
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	13108A16D	04/26/2013	18:19	Laura M Krieger	23.15
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201311330846	04/23/2013	21:20	Lois E Hiltz	n.a.
10590	20a Pesticides by EPA 8081B	SW-846 8081B	1	131130011A	04/27/2013	15:09	Jamie L Brillhart	1
10592	19a PCBs and PCTs 8082A	SW-846 8082A	1	131160002A	04/27/2013	07:56	Monica M Souders	1
10497	PCB Microwave Soil Extraction	SW-846 3546	2	131160002A	04/26/2013	22:15	Karen L Beyer	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	131130011A	04/23/2013	18:10	Sally L Appleyard	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	131140009A	04/26/2013	12:57	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	131140009A	04/25/2013	02:00	Sherry L Morrow	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13120002	05/02/2013	01:40	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13120002	04/30/2013	11:15	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010C	1	131150637001	04/28/2013	20:10	Tara L Snyder	1
06944	Antimony	SW-846 6010C	1	131150637001	04/28/2013	20:10	Tara L Snyder	1
06935	Arsenic	SW-846 6010C	1	131150637001	04/28/2013	20:10	Tara L Snyder	1
06946	Barium	SW-846 6010C	1	131150637001	04/28/2013	20:10	Tara L Snyder	1
06947	Beryllium	SW-846 6010C	1	131150637001	04/28/2013	20:10	Tara L Snyder	1
07914	Boron	SW-846 6010C	1	131150637001	04/28/2013	20:10	Tara L Snyder	1
06949	Cadmium	SW-846 6010C	1	131150637001	04/28/2013	20:10	Tara L Snyder	1
01650	Calcium	SW-846 6010C	1	131150637001	04/28/2013	20:10	Tara L Snyder	1
06951	Chromium	SW-846 6010C	1	131150637001	04/28/2013	20:10	Tara L Snyder	1
06952	Cobalt	SW-846 6010C	1	131150637001	04/28/2013	20:10	Tara L Snyder	1
06953	Copper	SW-846 6010C	1	131150637001	04/28/2013	20:10	Tara L Snyder	1
01654	Iron	SW-846 6010C	1	131150637001	04/28/2013	20:10	Tara L Snyder	1
06955	Lead	SW-846 6010C	1	131150637001	04/28/2013	20:10	Tara L Snyder	1
01656	Lithium	SW-846 6010C	1	131150637001	04/28/2013	20:10	Tara L Snyder	1
01657	Magnesium	SW-846 6010C	1	131150637001	04/28/2013	20:10	Tara L Snyder	1
06958	Manganese	SW-846 6010C	1	131150637001	04/28/2013	20:10	Tara L Snyder	1
06960	Molybdenum	SW-846 6010C	1	131150637001	04/28/2013	20:10	Tara L Snyder	1
06961	Nickel	SW-846 6010C	1	131150637001	04/28/2013	20:10	Tara L Snyder	1
10145	Phosphorus	SW-846 6010C	1	131150637001	04/28/2013	20:10	Tara L Snyder	1
01662	Potassium	SW-846 6010C	1	131150637001	04/28/2013	20:10	Tara L Snyder	1
01667	Sodium	SW-846 6010C	1	131150637001	04/28/2013	20:10	Tara L Snyder	1
06969	Tin	SW-846 6010C	1	131150637001	04/28/2013	20:10	Tara L Snyder	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-504-SA7-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7031220
LLI Group # 1384759
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/22/2013 13:55 by SM

Submitted: 04/23/2013 09:25
Reported: 05/06/2013 19:22

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

50445 SDG#: PH036-05

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06970	Titanium	SW-846 6010C	1	131150637001	04/28/2013 20:10	Tara L Snyder	1
06971	Vanadium	SW-846 6010C	1	131150637001	04/28/2013 20:10	Tara L Snyder	1
06972	Zinc	SW-846 6010C	1	131150637001	04/28/2013 20:10	Tara L Snyder	1
10146	Zirconium	SW-846 6010C	1	131150637001	04/28/2013 20:10	Tara L Snyder	1
06141	Selenium	SW-846 6020A	1	131150637001B	04/29/2013 09:40	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	131150637001A	04/29/2013 09:40	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	131150637001A	04/29/2013 09:40	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	131150637001A	04/29/2013 09:40	Choon Y Tian	2
00159	3a Mercury 7471A	SW-846 7471B	1	131150638001	04/26/2013 09:15	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	131150637001	04/25/2013 22:32	Annamaria Stipkovits	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	131150638001	04/26/2013 03:00	Annamaria Stipkovits	1
00394	15a pH by 9045C	SW-846 9045D modified	1	13113039401A	04/23/2013 20:00	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13115162401B	04/25/2013 19:23	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: TB-042213 Water
SSFL Phase 3 Subarea 7

LLI Sample # WW 7031221
LLI Group # 1384759
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/22/2013 08:00

Submitted: 04/23/2013 09:25
Reported: 05/06/2013 19:22

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

CTB22 SDG#: PH036-06TB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC Volatiles	**TPH GRO SW-8015B**		ug/l		ug/l	ug/l	
08229	TPH-GRO S.CA water C5-C12	n.a.	50	U	50	20	1

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08229	11b TPH by EPA 8015B GRO	TPH GRO SW-8015B	1	13115B20A	04/26/2013 11:35	Catherine J Schwarz	1
01146	GC VOA Water Prep	SW-846 5030B	1	13115B20A	04/26/2013 11:35	Catherine J Schwarz	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-517-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7031222
LLI Group # 1384759
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/22/2013 14:50 by SM

Submitted: 04/23/2013 09:25
Reported: 05/06/2013 19:22

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51700 SDG#: PH036-07*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	17	U	17	6.8	10
12969	Acenaphthylene	208-96-8	17	U	17	3.4	10
12969	Anthracene	120-12-7	17	U	17	3.4	10
12969	Benzo(a)anthracene	56-55-3	17	U	17	6.8	10
12969	Benzo(a)pyrene	50-32-8	17	U	17	6.8	10
12969	Benzo(b)fluoranthene	205-99-2	14	J	17	6.8	10
12969	Benzo(e)pyrene	192-97-2	170	U	170	34	10
12969	Benzo(g,h,i)perylene	191-24-2	17	U	17	6.8	10
12969	Benzo(k)fluoranthene	207-08-9	8.6	J	17	6.8	10
12969	Butylbenzylphthalate	85-68-7	180	U	180	61	10
12969	Di-n-butylphthalate	84-74-2	180	U	180	61	10
12969	Chrysene	218-01-9	9.1	J	17	3.4	10
12969	Dibenz(a,h)anthracene	53-70-3	17	U	17	6.8	10
12969	Diethylphthalate	84-66-2	180	U	180	61	10
12969	Dimethylphthalate	131-11-3	180	U	180	61	10
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	150	J	180	61	10
12969	Fluoranthene	206-44-0	11	J	17	6.8	10
12969	Fluorene	86-73-7	17	U	17	6.8	10
12969	Indeno(1,2,3-cd)pyrene	193-39-5	17	U	17	6.8	10
12969	1-Methylnaphthalene	90-12-0	17	U	17	6.8	10
12969	2-Methylnaphthalene	91-57-6	13	J	17	6.8	10
12969	Naphthalene	91-20-3	8.6	J	17	6.8	10
12969	N-Nitrosodimethylamine	62-75-9	17	U	17	6.8	10
12969	Di-n-octylphthalate	117-84-0	180	U	180	61	10
12969	Phenanthrene	85-01-8	14	J	17	6.8	10
12969	Pyrene	129-00-0	10	J	17	6.8	10
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
10592	Aroclor 5432	63496-31-1	170	U	170	51	5
10592	Aroclor 5442	12642-23-8	170	U	170	51	5
10592	Aroclor 5460	11126-42-4	250		170	51	5
10592	PCB-1016	12674-11-2	87	U	87	17	5
10592	PCB-1221	11104-28-2	87	U	87	26	5
10592	PCB-1232	11141-16-5	87	U	87	21	5
10592	PCB-1242	53469-21-9	87	U	87	17	5
10592	PCB-1248	12672-29-6	87	U	87	17	5
10592	PCB-1254	11097-69-1	87	U	87	22	5
10592	PCB-1260	11096-82-5	280		87	20	5
10592	PCB-1262	37324-23-5	87	U	87	17	5
10592	PCB-1268	11100-14-4	87	U	87	17	5
	Project defined QC acceptance limits are not met. All QC is compliant with the laboratory statistically generated limits.						
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.1	U	5.1	2.0	1
12952	EFH (C15-C20)	n.a.	5.1	U	5.1	2.0	1
12952	EFH (C21-C30)	n.a.	9.5		5.1	2.0	1
12952	EFH (C30-C40)	n.a.	29		10	4.1	1
12952	EFH (C8-C11)	n.a.	5.1	U	5.1	2.0	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-517-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7031222
LLI Group # 1384759
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/22/2013 14:50 by SM

Submitted: 04/23/2013 09:25
Reported: 05/06/2013 19:22

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51700 SDG#: PH036-07*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
	The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.						
Metals		**SW-846 6010C**	**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	12,500		40.5	7.80	1
06944	Antimony	7440-36-0	1.06	J	4.05	0.506	1
06935	Arsenic	7440-38-2	5.22		4.05	0.334	1
06946	Barium	7440-39-3	80.8		1.01	0.0334	1
06947	Beryllium	7440-41-7	0.510	J	1.01	0.0678	1
07914	Boron	7440-42-8	3.35	J	10.1	0.839	1
06949	Cadmium	7440-43-9	0.399	J	1.01	0.0334	1
01650	Calcium	7440-70-2	4,080		20.2	4.07	1
06951	Chromium	7440-47-3	30.2		3.03	0.0890	1
06952	Cobalt	7440-48-4	5.57		1.01	0.0910	1
06953	Copper	7440-50-8	15.1		2.02	0.182	1
01654	Iron	7439-89-6	22,300		40.5	3.84	1
06955	Lead	7439-92-1	17.5		3.03	0.475	1
01656	Lithium	7439-93-2	24.3		4.0	0.56	1
01657	Magnesium	7439-95-4	4,870		10.1	1.75	1
06958	Manganese	7439-96-5	434		1.01	0.0839	1
06960	Molybdenum	7439-98-7	0.345	J	2.02	0.172	1
06961	Nickel	7440-02-0	18.2		2.02	0.111	1
10145	Phosphorus	7723-14-0	460		10.1	0.516	1
01662	Potassium	7440-09-7	3,300		101	13.7	1
01667	Sodium	7440-23-5	86.4	J	101	16.9	1
06969	Tin	7440-31-5	3.19	J	10.1	0.222	1
06970	Titanium	7440-32-6	1,100		1.01	0.172	1
06971	Vanadium	7440-62-2	36.9		1.01	0.111	1
06972	Zinc	7440-66-6	94.5		4.05	0.202	1
10146	Zirconium	7440-67-7	12.5		5.06	0.839	1
		SW-846 6020A	**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.405	U	0.405	0.101	2
06142	Silver	7440-22-4	0.0593	J	0.202	0.0202	2
06144	Strontium	7440-24-6	16.7		0.405	0.0344	2
06145	Thallium	7440-28-0	0.245		0.202	0.0303	2
		SW-846 7471B	**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.123		0.0166	0.0103	1
Wet Chemistry		**SW-846 9045D modified**	**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045C	n.a.	7.67		0.0100	0.0100	1
	The pH was measured in water at 21.7 C.						
Wet Chemistry		**EPA 160.3 modified**	**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	2.1		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-517-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7031222
LLI Group # 1384759
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/22/2013 14:50 by SM

Submitted: 04/23/2013 09:25
Reported: 05/06/2013 19:22

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51700 SDG#: PH036-07*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.126	J	1.02	0.0248	1
11031	12378-PeCDD	40321-76-4	0.758	JQ	5.08	0.0555	1
11031	123478-HxCDD	39227-28-6	1.84	J	5.08	0.0378	1
11031	123678-HxCDD	57653-85-7	5.96		5.08	0.0393	1
11031	123789-HxCDD	19408-74-3	3.72	JB	5.08	0.0388	1
11031	1234678-HpCDD	35822-46-9	187	B	5.08	0.0706	1
11031	OCDD	3268-87-9	1,350	B	10.2	0.0489	1
11031	2378-TCDF	51207-31-9	3.69	C	1.02	0.0728	1
11031	12378-PeCDF	57117-41-6	18.0	B	5.08	0.0332	1
11031	23478-PeCDF	57117-31-4	2.93	JB	5.08	0.0331	1
11031	123478-HxCDF	70648-26-9	2.90	JB	5.08	0.0455	1
11031	123678-HxCDF	57117-44-9	4.56	JB	5.08	0.0434	1
11031	123789-HxCDF	72918-21-9	5.08	U	5.08	0.0475	1
11031	234678-HxCDF	60851-34-5	2.02	JB	5.08	0.0439	1
11031	1234678-HpCDF	67562-39-4	30.9	B	5.08	0.0369	1
11031	1234789-HpCDF	55673-89-7	1.86	JB	5.08	0.0435	1
11031	OCDF	39001-02-0	99.7	B	10.2	0.0246	1
Toxic Equivalents	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	6.64				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	96	25 - 164
13C12-12378-PeCDD	93	25 - 181
13C12-123478-HxCDD	105	32 - 141
13C12-123678-HxCDD	103	28 - 130
13C12-123789-HxCDD	103	28 - 130
13C12-1234678-HpCDD	104	23 - 140
13C12-OCDD	105	17 - 157
13C12-2378-TCDF	96	24 - 169
13C12-12378-PeCDF	96	24 - 185
13C12-23478-PeCDF	93	21 - 178
13C12-123478-HxCDF	107	26 - 152
13C12-123678-HxCDF	108	26 - 123
13C12-234678-HxCDF	108	28 - 136
13C12-123789-HxCDF	111	29 - 147
13C12-1234678-HpCDF	111	28 - 143
13C12-1234789-HpCDF	105	26 - 138
13C12-OCDF	104	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration

*=This limit was used in the evaluation of the final result

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Analysis Report

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Sample Description: SL-517-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7031222
LLI Group # 1384759
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/22/2013 14:50 by SM

Submitted: 04/23/2013 09:25
Reported: 05/06/2013 19:22

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51700 SDG#: PH036-07*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-517-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7031222
LLI Group # 1384759
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/22/2013 14:50 by SM

Submitted: 04/23/2013 09:25
Reported: 05/06/2013 19:22

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51700 SDG#: PH036-07*

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13115SLD026	04/30/2013	14:30	Mark A Clark	10
10811	BNA Soil Microwave SIM	SW-846 3546	1	13115SLD026	04/25/2013	15:45	Nicholas W Shroyer	1
10592	19a PCBs and PCTs 8082A	SW-846 8082A	1	131160002A	04/27/2013	08:51	Monica M Souders	5
10497	PCB Microwave Soil Extraction	SW-846 3546	2	131160002A	04/26/2013	22:15	Karen L Beyer	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	131140009A	04/26/2013	10:52	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	131140009A	04/25/2013	02:00	Sherry L Morrow	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13120002	05/02/2013	02:37	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13120002	04/30/2013	11:15	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010C	1	131150637001	04/28/2013	20:14	Tara L Snyder	1
06944	Antimony	SW-846 6010C	1	131150637001	04/28/2013	20:14	Tara L Snyder	1
06935	Arsenic	SW-846 6010C	1	131150637001	04/28/2013	20:14	Tara L Snyder	1
06946	Barium	SW-846 6010C	1	131150637001	04/28/2013	20:14	Tara L Snyder	1
06947	Beryllium	SW-846 6010C	1	131150637001	04/28/2013	20:14	Tara L Snyder	1
07914	Boron	SW-846 6010C	1	131150637001	04/28/2013	20:14	Tara L Snyder	1
06949	Cadmium	SW-846 6010C	1	131150637001	04/28/2013	20:14	Tara L Snyder	1
01650	Calcium	SW-846 6010C	1	131150637001	04/28/2013	20:14	Tara L Snyder	1
06951	Chromium	SW-846 6010C	1	131150637001	04/28/2013	20:14	Tara L Snyder	1
06952	Cobalt	SW-846 6010C	1	131150637001	04/28/2013	20:14	Tara L Snyder	1
06953	Copper	SW-846 6010C	1	131150637001	04/28/2013	20:14	Tara L Snyder	1
01654	Iron	SW-846 6010C	1	131150637001	04/28/2013	20:14	Tara L Snyder	1
06955	Lead	SW-846 6010C	1	131150637001	04/28/2013	20:14	Tara L Snyder	1
01656	Lithium	SW-846 6010C	1	131150637001	04/28/2013	20:14	Tara L Snyder	1
01657	Magnesium	SW-846 6010C	1	131150637001	04/28/2013	20:14	Tara L Snyder	1
06958	Manganese	SW-846 6010C	1	131150637001	04/28/2013	20:14	Tara L Snyder	1
06960	Molybdenum	SW-846 6010C	1	131150637001	04/28/2013	20:14	Tara L Snyder	1
06961	Nickel	SW-846 6010C	1	131150637001	04/28/2013	20:14	Tara L Snyder	1
10145	Phosphorus	SW-846 6010C	1	131150637001	04/28/2013	20:14	Tara L Snyder	1
01662	Potassium	SW-846 6010C	1	131150637001	04/28/2013	20:14	Tara L Snyder	1
01667	Sodium	SW-846 6010C	1	131150637001	04/28/2013	20:14	Tara L Snyder	1
06969	Tin	SW-846 6010C	1	131150637001	04/28/2013	20:14	Tara L Snyder	1
06970	Titanium	SW-846 6010C	1	131150637001	04/28/2013	20:14	Tara L Snyder	1
06971	Vanadium	SW-846 6010C	1	131150637001	04/28/2013	20:14	Tara L Snyder	1
06972	Zinc	SW-846 6010C	1	131150637001	04/28/2013	20:14	Tara L Snyder	1
10146	Zirconium	SW-846 6010C	1	131150637001	04/28/2013	20:14	Tara L Snyder	1
06141	Selenium	SW-846 6020A	1	131150637001B	04/29/2013	09:42	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	131150637001A	04/29/2013	09:42	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	131150637001A	04/29/2013	09:42	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-517-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7031222
LLI Group # 1384759
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/22/2013 14:50 by SM

Submitted: 04/23/2013 09:25
Reported: 05/06/2013 19:22

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51700 SDG#: PH036-07*

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06145	Thallium	SW-846 6020A	1	131150637001A	04/29/2013 09:42	Choon Y Tian	2
00159	3a Mercury 7471A	SW-846 7471B	1	131150638001	04/26/2013 09:17	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	131150637001	04/25/2013 22:32	Annamaria Stipkovits	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	131150638001	04/26/2013 03:00	Annamaria Stipkovits	1
00394	15a pH by 9045C	SW-846 9045D modified	1	13113039401A	04/23/2013 20:00	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13115162401B	04/25/2013 19:23	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1384759
Reported: 05/06/13 at 07:22 PM

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 13115SLD026	Sample number(s): 7031213-7031215,7031217-7031220,7031222									
Acenaphthene	1.7	U	1.7	0.67	ug/kg	104		69-114		
Acenaphthylene	1.7	U	1.7	0.33	ug/kg	102		71-113		
Anthracene	1.7	U	1.7	0.33	ug/kg	101		75-116		
Benzo(a)anthracene	1.7	U	1.7	0.67	ug/kg	103		76-115		
Benzo(a)pyrene	1.7	U	1.7	0.67	ug/kg	106		76-117		
Benzo(b)fluoranthene	1.7	U	1.7	0.67	ug/kg	118		77-129		
Benzo(e)pyrene	17	U	17.	3.3	ug/kg	97		70-130		
Benzo(g,h,i)perylene	1.7	U	1.7	0.67	ug/kg	104		64-120		
Benzo(k)fluoranthene	1.7	U	1.7	0.67	ug/kg	104		71-120		
Butylbenzylphthalate	18	U	18.	6.0	ug/kg	111		65-131		
Di-n-butylphthalate	18	U	18.	6.0	ug/kg	109		67-140		
Chrysene	1.7	U	1.7	0.33	ug/kg	97		78-111		
Dibenz(a,h)anthracene	1.7	U	1.7	0.67	ug/kg	104		65-124		
Diethylphthalate	18	U	18.	6.0	ug/kg	108		68-125		
Dimethylphthalate	18	U	18.	6.0	ug/kg	103		70-130		
Bis(2-Ethylhexyl)phthalate	18	U	18.	6.0	ug/kg	108		67-143		
Fluoranthene	1.7	U	1.7	0.67	ug/kg	99		68-119		
Fluorene	1.7	U	1.7	0.67	ug/kg	103		75-123		
Indeno(1,2,3-cd)pyrene	1.7	U	1.7	0.67	ug/kg	101		66-122		
1-Methylnaphthalene	1.7	U	1.7	0.67	ug/kg	107		74-113		
2-Methylnaphthalene	1.7	U	1.7	0.67	ug/kg	106		78-121		
Naphthalene	1.7	U	1.7	0.67	ug/kg	102		64-120		
N-Nitrosodimethylamine	1.7	U	1.7	0.67	ug/kg	92		30-125		
Di-n-octylphthalate	18	U	18.	6.0	ug/kg	111		57-133		
Phenanthrene	1.7	U	1.7	0.67	ug/kg	99		72-110		
Pyrene	1.7	U	1.7	0.67	ug/kg	95		71-120		
Batch number: 13108A16D	Sample number(s): 7031220									
11a TPH by EPA 8015B GRO	1.0	U	1.0	0.2	mg/kg	89	82	67-119	8	30
Batch number: 13115B20A	Sample number(s): 7031221									
TPH-GRO S.CA water C5-C12	50	U	50.	20	ug/l	95	97	75-135	2	30
Batch number: 131130011A	Sample number(s): 7031213-7031215,7031217-7031220									
Aldrin	0.83	U	0.83	0.17	ug/kg	91		73-119		
Alpha BHC	0.83	U	0.83	0.17	ug/kg	98		72-126		
Beta BHC	1.9	U	1.9	0.96	ug/kg	95		76-123		
Gamma BHC - Lindane	0.83	U	0.83	0.17	ug/kg	101		72-128		
Chlordane	17	U	17.	4.0	ug/kg					
p,p-DDD	1.7	U	1.7	0.33	ug/kg	112		76-138		
p,p-DDE	1.7	U	1.7	0.33	ug/kg	103		76-126		
p,p-DDT	1.7	U	1.7	0.35	ug/kg	87		72-131		
Delta BHC	0.83	U	0.83	0.45	ug/kg	102		73-128		

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1384759
Reported: 05/06/13 at 07:22 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Dieldrin	1.7	U	1.7	0.33	ug/kg	109		78-135		
Endosulfan I	0.83	U	0.83	0.22	ug/kg	103		62-125		
Endosulfan II	1.7	U	1.7	0.33	ug/kg	105		68-128		
Endosulfan Sulfate	1.7	U	1.7	0.33	ug/kg	102		72-138		
Endrin	1.7	U	1.7	0.33	ug/kg	91		75-130		
Endrin Aldehyde	1.7	U	1.7	0.33	ug/kg	96		55-132		
Endrin Ketone	1.8	U	1.8	0.60	ug/kg	103		74-127		
Heptachlor	0.83	U	0.83	0.17	ug/kg	91		69-125		
Heptachlor Epoxide	0.83	U	0.83	0.17	ug/kg	97		78-125		
Methoxychlor	6.7	U	6.7	1.7	ug/kg	90		59-125		
Mirex	1.7	U	1.7	0.35	ug/kg					
Toxaphene	33	U	33.	14	ug/kg					
Batch number: 131130012A	Sample number(s): 7031213-7031215,7031219									
Aroclor 5432	33	U	33.	10	ug/kg					
Aroclor 5442	33	U	33.	10	ug/kg	70	70	36-106	0	30
Aroclor 5460	33	U	33.	10	ug/kg					
PCB-1016	17	U	17.	3.3	ug/kg	102		80-120		
PCB-1221	17	U	17.	5.1	ug/kg					
PCB-1232	17	U	17.	4.1	ug/kg					
PCB-1242	17	U	17.	3.3	ug/kg					
PCB-1248	17	U	17.	3.3	ug/kg					
PCB-1254	17	U	17.	4.4	ug/kg					
PCB-1260	17	U	17.	3.9	ug/kg	106		72-120		
PCB-1262	17	U	17.	3.3	ug/kg					
PCB-1268	17	U	17.	3.3	ug/kg					
Batch number: 131160002A	Sample number(s): 7031217-7031218,7031220,7031222									
Aroclor 5432	33	U	33.	10	ug/kg					
Aroclor 5442	33	U	33.	10	ug/kg	81	81	36-106	0	30
Aroclor 5460	33	U	33.	10	ug/kg					
PCB-1016	17	U	17.	3.3	ug/kg	99		80-120		
PCB-1221	17	U	17.	5.1	ug/kg					
PCB-1232	17	U	17.	4.1	ug/kg					
PCB-1242	17	U	17.	3.3	ug/kg					
PCB-1248	17	U	17.	3.3	ug/kg					
PCB-1254	17	U	17.	4.4	ug/kg					
PCB-1260	17	U	17.	3.9	ug/kg	103		72-120		
PCB-1262	17	U	17.	3.3	ug/kg					
PCB-1268	17	U	17.	3.3	ug/kg					
Batch number: 131140009A	Sample number(s): 7031213-7031215,7031217-7031220,7031222									
EFH (C12-C14)	5.0	U	5.0	2.0	mg/kg	90		70-123		
EFH (C15-C20)	5.0	U	5.0	2.0	mg/kg	94		75-128		
EFH (C21-C30)	5.0	U	5.0	2.0	mg/kg	95		64-134		
EFH (C30-C40)	10	U	10.	4.0	mg/kg	55*		65-128		
EFH (C8-C11)	5.0	U	5.0	2.0	mg/kg	74		49-107		
Batch number: 131150637001	Sample number(s): 7031213-7031220,7031222									
Aluminum	10.3	J	40.0	7.71	mg/kg	105		80-120		
Antimony	4.00	U	4.00	0.500	mg/kg	105		80-120		
Arsenic	4.00	U	4.00	0.330	mg/kg	104		80-120		
Barium	1.00	U	1.00	0.0330	mg/kg	102		80-120		
Beryllium	1.00	U	1.00	0.0670	mg/kg	103		80-120		
Boron	1.62	J	10.0	0.830	mg/kg	100		80-120		
Cadmium	1.00	U	1.00	0.0330	mg/kg	102		80-120		

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1384759
Reported: 05/06/13 at 07:22 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Calcium	25.6		20.0	4.02	mg/kg	107		80-120		
Chromium	3.00	U	3.00	0.0880	mg/kg	103		80-120		
Cobalt	1.00	U	1.00	0.0900	mg/kg	103		80-120		
Copper	2.00	U	2.00	0.180	mg/kg	106		80-120		
Iron	40.0	U	40.0	3.80	mg/kg	101		80-120		
Lead	3.00	U	3.00	0.470	mg/kg	104		80-120		
Lithium	4.0	U	4.0	0.55	mg/kg	103		80-120		
Magnesium	10.0	U	10.0	1.73	mg/kg	100		80-120		
Manganese	1.00	U	1.00	0.0830	mg/kg	104		80-120		
Molybdenum	2.00	U	2.00	0.170	mg/kg	101		80-120		
Nickel	2.00	U	2.00	0.110	mg/kg	106		80-120		
Phosphorus	1.45	J	10.0	0.510	mg/kg	106		80-120		
Potassium	100 U		100.	13.5	mg/kg	101		80-120		
Sodium	100 U		100.	16.7	mg/kg	100		80-120		
Tin	1.45	J	10.0	0.220	mg/kg	103		80-120		
Titanium	1.00	U	1.00	0.170	mg/kg	103		80-120		
Vanadium	1.00	U	1.00	0.110	mg/kg	102		80-120		
Zinc	4.00	U	4.00	0.200	mg/kg	105		80-120		
Zirconium	5.00	U	5.00	0.830	mg/kg	102		80-120		
Batch number: 131150637001A	Sample number(s): 7031213-7031220,7031222									
Silver	0.200	U	0.200	0.0200	mg/kg	100		80-120		
Strontium	0.179	J	0.400	0.0340	mg/kg	98		80-120		
Thallium	0.200	U	0.200	0.0300	mg/kg	111		80-120		
Batch number: 131150637001B	Sample number(s): 7031213-7031220,7031222									
Selenium	0.400	U	0.400	0.100	mg/kg	98		80-120		
Batch number: 131150638001	Sample number(s): 7031213-7031220,7031222									
3a Mercury 7471A	0.0167	U	0.0167	0.0103	mg/kg	111		85-120		
Batch number: 13113039401A	Sample number(s): 7031213,7031216-7031220,7031222									
15a pH by 9045C						99		95-105		
Batch number: 13115162401B	Sample number(s): 7031213-7031220,7031222									
14a Moisture Content by 160.3						100		80-120		
14a Moisture Content by 160.3						100		80-120		
14a Moisture Content by 160.3						100		80-120		

Analysis Name	Blank Result		Blank MRL**	Blank EDL	Report Units	OPR %REC	OPRD %REC	OPR/OPRD Limits	RPD	RPD Max
Batch number: 13120002	Sample number(s): 7031213-7031215,7031217-7031220,7031222									
2378-TCDD	1.00	U	1.00	0.0200	ng/kg	93		67-158		
12378-PeCDD	5.00	U	5.00	0.0209	ng/kg	96		70-142		
123478-HxCDD	5.00	U	5.00	0.0137	ng/kg	102		70-164		
123678-HxCDD	5.00	U	5.00	0.0147	ng/kg	99		76-134		
123789-HxCDD	0.0225	J	5.00	0.0141	ng/kg	99		64-162		
1234678-HpCDD	0.0731	J	5.00	0.0152	ng/kg	98		70-140		
OCDD	0.155	J	10.0	0.0149	ng/kg	98		78-144		
2378-TCDF	1.00	U	1.00	0.0167	ng/kg	96		75-158		
12378-PeCDF	0.0365	J	5.00	0.00978	ng/kg	100		80-134		
23478-PeCDF	0.0100	J	5.00	0.00992	ng/kg	101		68-160		

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1384759
Reported: 05/06/13 at 07:22 PM

Analysis Name	Blank Result	Blank MRL**	Blank EDL	Report Units	OPR %REC	OPRD %REC	OPR/OPRD Limits	RPD	RPD Max
123478-HxCDF	0.0375 J	5.00	0.0105	ng/kg	103		72-134		
123678-HxCDF	0.0203 J	5.00	0.00971	ng/kg	100		84-130		
123789-HxCDF	0.0140 J	5.00	0.0114	ng/kg	101		78-130		
234678-HxCDF	0.0283 J	5.00	0.0104	ng/kg	100		70-156		
1234678-HpCDF	0.0401 J	5.00	0.00639	ng/kg	98		82-122		
1234789-HpCDF	0.0269 J	5.00	0.0103	ng/kg	100		78-138		
OCDF	0.107 J	10.0	0.0237	ng/kg	99		63-170		
TEQ WHO 2005 - EDLx0.0	0.00349			ng/kg					

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 13115SLD026	Sample number(s): 7031213-7031215,7031217-7031220,7031222 UNSPK: 7031213								
Acenaphthene	100	103	48-127	3	30				
Acenaphthylene	95	98	49-121	3	30				
Anthracene	95	99	52-126	4	30				
Benzo(a)anthracene	96	102	32-135	5	30				
Benzo(a)pyrene	100	105	36-138	5	30				
Benzo(b)fluoranthene	107	113	26-142	5	30				
Benzo(e)pyrene	97	102	70-130	5	30				
Benzo(g,h,i)perylene	63	73	33-141	13	30				
Benzo(k)fluoranthene	87	87	47-129	0	30				
Butylbenzylphthalate	130	121	59-153	7	30				
Di-n-butylphthalate	105	109	62-154	4	30				
Chrysene	92	97	29-148	5	30				
Dibenz(a,h)anthracene	83	91	34-125	9	30				
Diethylphthalate	96	101	76-127	5	30				
Dimethylphthalate	93	96	62-136	2	30				
Bis(2-Ethylhexyl)phthalate	111	125	39-167	10	30				
Fluoranthene	91	95	47-135	4	30				
Fluorene	98	99	50-129	2	30				
Indeno(1,2,3-cd)pyrene	72	81	17-136	10	30				
1-Methylnaphthalene	104	104	50-131	0	30				
2-Methylnaphthalene	105	106	28-144	0	30				
Naphthalene	102	101	31-148	1	30				
N-Nitrosodimethylamine	131*	135*	48-113	3	30				
Di-n-octylphthalate	138	129	52-162	6	30				
Phenanthrene	97	96	29-142	0	30				
Pyrene	88	93	26-143	5	30				
Batch number: 131130011A	Sample number(s): 7031213-7031215,7031217-7031220 UNSPK: 7031213								
Aldrin	84	81	16-126	3	50				
Alpha BHC	79	83	14-140	5	50				
Beta BHC	77	82	10-173	6	50				
Gamma BHC - Lindane	80	86	30-137	8	50				

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Quality Control Summary

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Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
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Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
p,p-DDD	93	91	43-149	2	50				
p,p-DDE	88	85	18-161	3	50				
p,p-DDT	92	105	12-193	12	50				
Delta BHC	90	92	13-153	2	50				
Dieldrin	98	88	19-154	11	50				
Endosulfan I	88	80	16-137	9	50				
Endosulfan II	80	81	10-156	1	50				
Endosulfan Sulfate	86	84	10-181	2	50				
Endrin	88	87	30-152	2	50				
Endrin Aldehyde	92	87	10-152	6	35				
Endrin Ketone	57	54	10-160	5	50				
Heptachlor	83	81	16-152	1	50				
Heptachlor Epoxide	87	93	17-167	7	50				
Methoxychlor	79	87	34-168	10	50				
Batch number: 131130012A	Sample number(s): 7031213-7031215,7031219 UNSPK: 7031213								
PCB-1016	100	95	16-146	4	50				
PCB-1260	95	99	40-134	4	50				
Batch number: 131160002A	Sample number(s): 7031217-7031218,7031220,7031222 UNSPK: P031213								
PCB-1016	108	102	16-146	6	50				
PCB-1260	114	102	40-134	11	50				
Batch number: 131140009A	Sample number(s): 7031213-7031215,7031217-7031220,7031222 UNSPK: 7031213								
EFH (C12-C14)	99	91	49-123	8	20				
EFH (C15-C20)	124*	137*	49-123	10	20				
EFH (C21-C30)	127*	182*	49-123	18	20				
EFH (C30-C40)	203 (2)	296 (2)	49-123	14	20				
EFH (C8-C11)	106	95	49-123	11	20				
Batch number: 131150637001	Sample number(s): 7031213-7031220,7031222 UNSPK: 7031213 BKG: 7031213								
Aluminum	2585 (2)	2282 (2)	75-125	3	20	13,100	14,600	11	20
Antimony	67*	64*	75-125	4	20	3.96 U	0.540 J	200* (1)	20
Arsenic	95	105	75-125	7	20	4.95	5.12	3 (1)	20
Barium	104	106	75-125	1	20	70.7	77.9	10	20
Beryllium	106	104	75-125	1	20	0.522 J	0.579 J	10 (1)	20
Boron	101	100	75-125	1	20	5.72 J	7.99 J	33* (1)	20
Cadmium	97	98	75-125	1	20	0.116 J	0.138 J	17 (1)	20
Calcium	140 (2)	198 (2)	75-125	7	20	2,840	3,060	8	20
Chromium	107	104	75-125	2	20	19.7	20.4	3	20
Cobalt	100	100	75-125	0	20	4.62	5.28	13 (1)	20
Copper	111	110	75-125	0	20	12.4	13.2	7	20
Iron	3126 (2)	2463 (2)	75-125	3	20	21,800	23,500	7	20
Lead	104	185*	75-125	24*	20	28.1	43.6	43*	20
Lithium	103	101	75-125	1	20	25.6	25.7	0	20
Magnesium	249 (2)	221 (2)	75-125	1	20	5,100	5,180	2	20
Manganese	145 (2)	132 (2)	75-125	2	20	266	298	11	20
Molybdenum	99	99	75-125	0	20	0.291 J	0.314 J	8 (1)	20
Nickel	103	101	75-125	1	20	10.5	11.2	6	20
Phosphorus	78 (2)	113 (2)	75-125	7	20	420	439	4	20

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Quality Control Summary

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Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
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Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Potassium	140*	137*	75-125	1	20	3,350	3,630	8	20
Sodium	99	98	75-125	1	20	73.1 J	77.5 J	6 (1)	20
Tin	94	95	75-125	1	20	3.02 J	3.24 J	7 (1)	20
Titanium	359 (2)	334 (2)	75-125	2	20	1,120	1,230	9	20
Vanadium	114	112	75-125	1	20	35.4	39.1	10	20
Zinc	106	106	75-125	0	20	60.1	62.1	3	20
Zirconium	99	98	75-125	1	20	2.43 J	2.76 J	13 (1)	20
Batch number: 131150637001A	Sample number(s): 7031213-7031220,7031222 UNSPK: 7031213 BKG: 7031213								
Silver	96	98	75-125	2	20	0.0269 J	0.0419 J	44* (1)	20
Strontium	69*	75	75-125	3	20	12.7	13.0	2	20
Thallium	87	90	75-125	2	20	0.272	0.264	3 (1)	20
Batch number: 131150637001B	Sample number(s): 7031213-7031220,7031222 UNSPK: 7031213 BKG: 7031213								
Selenium	95	90	75-125	5	20	0.396 U	0.396 U	0 (1)	20
Batch number: 131150638001	Sample number(s): 7031213-7031220,7031222 UNSPK: 7031213 BKG: 7031213								
3a Mercury 7471A	105	104	65-135	2	20	0.0161	0.0142 J	13 (1)	20
Batch number: 13113039401A	Sample number(s): 7031213,7031216-7031220,7031222 BKG: 7031213								
15a pH by 9045C						6.77	6.84	1	3
Batch number: 13115162401B	Sample number(s): 7031213-7031220,7031222 BKG: 7031213								
14a Moisture Content by 160.3						3.7	3.6	4	20
14a Moisture Content by 160.3						3.7	3.6	4	20
14a Moisture Content by 160.3						3.7	3.6	4	20
Batch number: 13120002	Sample number(s): 7031213-7031215,7031217-7031220,7031222 UNSPK: 7031213								
2378-TCDD	92	92	40-135	2	20				
12378-PeCDD	96	96	40-135	2	20				
123478-HxCDD	101	100	40-135	2	20				
123678-HxCDD	98	99	40-135	4	20				
123789-HxCDD	100	99	40-135	2	20				
1234678-HpCDD	96	101	40-135	6	20				
OCDD	99	139*	40-135	21*	20				
2378-TCDF	99	97	40-135	1	20				
12378-PeCDF	99	97	40-135	1	20				
23478-PeCDF	100	99	40-135	1	20				
123478-HxCDF	103	101	40-135	1	20				
123678-HxCDF	99	98	40-135	2	20				
123789-HxCDF	102	100	40-135	0	20				
234678-HxCDF	100	99	40-135	1	20				
1234678-HpCDF	99	98	40-135	2	20				
1234789-HpCDF	100	100	40-135	3	20				
OCDF	100	101	40-135	3	20				

Surrogate Quality Control

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1384759
Reported: 05/06/13 at 07:22 PM

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 7a SVOC SIM EPA 8270D
Batch number: 13115SLD026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
7031213	95	106	101
7031214	93	107	102
7031215	97	109	102
7031217	93	106	97
7031218	97	97	101
7031219	103	101	96
7031220	94	109	99
7031222	101	111	102
Blank	90	108	103
LCS	94	111	105
MS	93	107	102
MSD	97	109	102
Limits:	54-129	61-134	55-129

Analysis Name: 11a TPH by EPA 8015B GRO
Batch number: 13108A16D

	Trifluorotoluene-F
7031220	82
Blank	85
LCS	86
LCSD	80
Limits:	61-122

Analysis Name: 11b TPH by EPA 8015B GRO
Batch number: 13115B20A

	Trifluorotoluene-F
7031221	89
Blank	88
LCS	113
LCSD	112
Limits:	63-135

Analysis Name: 20a Pesticides by EPA 8081B
Batch number: 131130011A

	Tetrachloro-m-xylene	Decachlorobiphenyl
7031213	85	89
7031214	77	88
7031215	82	85
7031217	79	98
7031218	88	93
7031219	87	97
7031220	88	81

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1384759
Reported: 05/06/13 at 07:22 PM

Surrogate Quality Control

Blank	89	107
LCS	91	113
MS	77	88
MSD	82	85
Limits:	50-130	20-120

Analysis Name: 19a PCBs and PCTs 8082A
Batch number: 131130012A

	Tetrachloro-m-xylene	Decachlorobiphenyl
7031213	112	99
7031214	120	103
7031215	118	104
7031219	107	96
Blank	122*	97
LCS	118	102
LCSD	122*	106
MS	120	103
MSD	118	104
Limits:	45-120	45-120

Analysis Name: 19a PCBs and PCTs 8082A
Batch number: 131160002A

	Tetrachloro-m-xylene	Decachlorobiphenyl
7031217	122*	106
7031218	129*	107
7031220	127*	109
7031222	123*	132*
Blank	121*	104
LCS	120	108
LCSD	128*	120
MS	127*	112
MSD	119	106
Limits:	45-120	45-120

Analysis Name: 10a TPH by EPA 8015B (DRO)
Batch number: 131140009A

	Chlorobenzene	Orthoterphenyl
7031213	89	90
7031214	95	96
7031215	88	89
7031217	86	89
7031218	92	96
7031219	92	95
7031220	98	100
7031222	87	89
Blank	87	77
LCS	91	91
MS	95	96
MSD	88	89

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1384759
Reported: 05/06/13 at 07:22 PM

Surrogate Quality Control

Limits: 37-125 66-123

Analysis Name: 23a Dioxin/Furan by EPA 1613B
Batch number: 13120002

	13C12-2378-TCDD	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF	13C12-234678-HxCDF	13C12-123789-HxCDF
7031213	79	81	90	94	89	91
7031214	80	85	88	93	87	83
7031215	80	84	89	94	90	88
7031217	76	79	87	91	86	84
7031218	77	79	85	90	84	84
7031219	84	83	91	91	89	93
7031220	75	77	84	87	84	87
7031222	96	93	107	108	108	111
Blank	79	84	96	101	96	98
MS	80	85	88	93	87	83
MSD	80	84	89	94	90	88
OPR	70	72	83	89	83	82
Limits:	25-164	21-178	26-152	26-123	28-136	29-147

	13C12-1234678-HpCDF	13C12-1234789-HpCDF	13C12-OCDF	13C12-12378-PeCDD	13C12-123478-HxCDD	13C12-123678-HxCDD
7031213	106	79	75	82	86	86
7031214	102	80	77	85	86	86
7031215	103	83	80	84	88	92
7031217	104	77	74	81	84	85
7031218	101	76	73	82	85	85
7031219	95	87	88	83	85	87
7031220	95	79	76	78	83	84
7031222	111	105	104	93	105	103
Blank	121	87	81	90	94	93
MS	102	80	77	85	86	86
MSD	103	83	80	84	88	92
OPR	105	72	68	75	82	83
Limits:	28-143	26-138	17-157	25-181	32-141	28-130

	13C12-123789-HxCDD	13C12-1234678-HpCDD	13C12-OCDD	13C12-2378-TCDF	13C12-12378-PeCDF
7031213	85	84	83	78	85
7031214	84	86	82	79	88
7031215	88	87	86	78	86
7031217	84	84	83	75	82
7031218	84	83	83	74	81
7031219	85	85	88	82	83
7031220	81	82	81	71	79
7031222	103	104	105	96	96
Blank	92	95	93	78	88
MS	84	86	82	79	88
MSD	88	87	86	78	86
OPR	83	81	79	66	75
Limits:	28-130	23-140	17-157	24-169	24-185

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1384759
Reported: 05/06/13 at 07:22 PM

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

SSFL Phase 3 Chain of Custody

13013 1384759 7031213-22

CDM Smith

DateShipped: 4/22/2013
CarrierName: FedEx
AirbillNo: 7995 8528 1095

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20130422-01
Cooler #: 1
Lab: Lancaster
Lab Phone: 717-556-7259
Lab Address: 2425 New Holland Pike Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Other Analysis/Notes
SL-510-SA7-SB-0.0-0.5MS	4/22/13 08:45	SO	None	6 - SS-Sleeve	10 day	X	X					X		X	X							X				X											
SL-510-SA7-SB-0.0-0.5MS	4/22/13 08:45	SO	None	1 - 8 oz glass	10 day													X																			
SL-810-SA7-SB-0.0-0.5	4/22/13 08:50	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X							X				X											
SL-810-SA7-SB-0.0-0.5	4/22/13 08:50	SO	None	1 - 4 oz glass	10 day													X																			
SL-503-SA7-SB-0.0-0.5	4/22/13 10:45	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X							X				X											
SL-503-SA7-SB-0.0-0.5	4/22/13 10:45	SO	None	1 - 4 oz glass	10 day													X																			
SL-504-SA7-SB-0.0-0.5	4/22/13 12:50	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X							X				X											
SL-504-SA7-SB-0.0-0.5	4/22/13 12:50	SO	None	1 - 4 oz glass	10 day													X																			
SL-504-SA7-SB-4.0-5.0	4/22/13 13:55	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X							X				X											
SL-504-SA7-SB-4.0-5.0	4/22/13 13:55	SO	None	1 - 4 oz glass	10 day													X																			
SL-504-SA7-SB-4.0-5.0	4/22/13 13:55	SO	None	1 - Encore	10 day																				X												
TB-042213	4/22/13 08:00	WQ	HCl	3 - 40 mL Vial	10 day																				X												
SL-517-SA7-SB-0.0-0.5	4/22/13 14:50	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-517-SA7-SB-0.0-0.5	4/22/13 14:50	SO	None	1 - 4 oz glass	10 day													X																			

Special Instructions:

Sampler: Steve Mercer

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
V. Gt	4/22/13										
									CCshl	4/23/13	0925

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Environmental Sample Administration Receipt Documentation Log

1384759

Client/Project: CDM Smith

Date of Receipt: 4/23/13

Time of Receipt: 0925

Source Code: 50-1

Shipping Container Sealed: (YES) NO

Custody Seal Present * : (YES) NO

* Custody seal was intact unless otherwise noted in the discrepancy section

Package: (Chilled) Not Chilled

Temperature of Shipping Containers							
Cooler #	Thermometer ID	Temperature (°C)	Temp Bottle (TB) or Surface Temp (ST)	Wet Ice (WI) or Dry Ice (DI) or Ice Packs (IP)	Ice Present? Y/N	Loose (L) Bagged Ice (B) or NA	Comments
1	2737	3.2	TB	WI	Y	B	
2							
3							
4							
5							
6							

Number of Trip Blanks received NOT listed on chain of custody: Ø

Paperwork Discrepancy/Unpacking Problems:

Unpacker Signature/Emp#: [signature] 3647 **Date/Time:** 4/23/13 1015

Issued by Dept. 6042 Management

2174.06

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	**BMQL**	Below Minimum Quantitation Level
N.D.	none detected	**MPN**	Most Probable Number
TNTC	Too Numerous To Count	**CP Units**	cobalt-chloroplatinate units
IU	International Units	**NTU**	nephelometric turbidity units
umhos/cm	micromhos/cm	**ng**	nanogram(s)
C	degrees Celsius	**F**	degrees Fahrenheit
meq	milliequivalents	**lb.**	pound(s)
g	gram(s)	**kg**	kilogram(s)
µg	microgram(s)	**mg**	milligram(s)
mL	milliliter(s)	**L**	liter(s)
m3	cubic meter(s)	**µL**	microliter(s)
		pg/L	picogram/liter

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

J estimated value – The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	**B**	Value is <CRDL, but ≥IDL
B	Analyte was also detected in the blank	**E**	Estimated due to interference
C	Pesticide result confirmed by GC/MS	**M**	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	**N**	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	**S**	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	**U**	Compound was not detected
P	Concentration difference between primary and confirmation columns >25%	**W**	Post digestion spike out of control limits
U	Compound was not detected	*****	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	**+**	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as “analyze immediately” are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL LANCASTER LABORATORIES BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF LANCASTER LABORATORIES AND (B) WHETHER LANCASTER LABORATORIES HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Lancaster Laboratories which includes any conditions that vary from the Standard Terms and Conditions, and Lancaster hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

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2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Analysis Report

ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

May 06, 2013

Project: Phase 3 Subarea 7

Submittal Date: 04/24/2013
Group Number: 1385148
SDG: PH037
PO Number: 1204-002-001-AL
State of Sample Origin: CA

Client Sample Description	Lancaster Labs (LLI) #
TB-042313 Water	7032823
SL-526-SA7-SB-0.0-0.5 Soil	7032824
SL-526-SA7-SB-3.5-4.5 Soil	7032825
SL-512-SA7-SB-0.0-0.5 Soil	7032826
SL-525-SA7-SB-0.0-0.5 Soil	7032827

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO	LLI	Attn: Nicole Maljovec
ELECTRONIC COPY TO	Eurofins Lancaster Labs	Attn: Natalie Luciano

Respectfully Submitted,

Nicole L. Maljovec
Principal Specialist Group Leader

(717) 556-7259

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2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Analysis Report

Sample Description: TB-042313 Water
SSFL Phase 3 Subarea 7

LLI Sample # WW 7032823
LLI Group # 1385148
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/23/2013 08:00

Submitted: 04/24/2013 09:30
Reported: 05/06/2013 13:36

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SLT23 SDG#: PH037-01

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC Volatiles	**TPH GRO SW-8015B**		ug/l		ug/l	ug/l	
08229	TPH-GRO S.CA water C5-C12	n.a.	50	U	50	20	1

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08229	11b TPH by EPA 8015B GRO	TPH GRO SW-8015B	1	13115B20A	04/26/2013 11:56	Catherine J Schwarz	1
01146	GC VOA Water Prep	SW-846 5030B	1	13115B20A	04/26/2013 11:56	Catherine J Schwarz	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-526-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7032824
LLI Group # 1385148
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/23/2013 09:25 by SM

Submitted: 04/24/2013 09:30
Reported: 05/06/2013 13:36

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL526 SDG#: PH037-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.8	U	1.8	0.74	1
12969	Acenaphthylene	208-96-8	1.8	U	1.8	0.37	1
12969	Anthracene	120-12-7	1.8	U	1.8	0.37	1
12969	Benzo(a)anthracene	56-55-3	0.88	J	1.8	0.74	1
12969	Benzo(a)pyrene	50-32-8	0.86	J	1.8	0.74	1
12969	Benzo(b)fluoranthene	205-99-2	1.9		1.8	0.74	1
12969	Benzo(e)pyrene	192-97-2	19	U	19	3.7	1
12969	Benzo(g,h,i)perylene	191-24-2	0.94	J	1.8	0.74	1
12969	Benzo(k)fluoranthene	207-08-9	0.75	J	1.8	0.74	1
12969	Butylbenzylphthalate	85-68-7	20	U	20	6.6	1
12969	Di-n-butylphthalate	84-74-2	20	U	20	6.6	1
12969	Chrysene	218-01-9	1.9		1.8	0.37	1
12969	Dibenz(a,h)anthracene	53-70-3	1.8	U	1.8	0.74	1
12969	Diethylphthalate	84-66-2	20	U	20	6.6	1
12969	Dimethylphthalate	131-11-3	20	U	20	6.6	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	36		20	6.6	1
12969	Fluoranthene	206-44-0	2.3		1.8	0.74	1
12969	Fluorene	86-73-7	1.3	J	1.8	0.74	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.0	J	1.8	0.74	1
12969	1-Methylnaphthalene	90-12-0	1.8	U	1.8	0.74	1
12969	2-Methylnaphthalene	91-57-6	1.8	U	1.8	0.74	1
12969	Naphthalene	91-20-3	1.2	J	1.8	0.74	1
12969	N-Nitrosodimethylamine	62-75-9	0.81	J	1.8	0.74	1
12969	Di-n-octylphthalate	117-84-0	20	U	20	6.6	1
12969	Phenanthrene	85-01-8	1.4	J	1.8	0.74	1
12969	Pyrene	129-00-0	2.0		1.8	0.74	1
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
10592	Aroclor 5432	63496-31-1	36	U	36	11	1
10592	Aroclor 5442	12642-23-8	36	U	36	11	1
10592	Aroclor 5460	11126-42-4	36	U	36	11	1
10592	PCB-1016	12674-11-2	19	U	19	3.6	1
10592	PCB-1221	11104-28-2	19	U	19	5.6	1
10592	PCB-1232	11141-16-5	19	U	19	4.5	1
10592	PCB-1242	53469-21-9	19	U	19	3.6	1
10592	PCB-1248	12672-29-6	19	U	19	3.6	1
10592	PCB-1254	11097-69-1	19	U	19	4.8	1
10592	PCB-1260	11096-82-5	19	U	19	4.3	1
10592	PCB-1262	37324-23-5	19	U	19	3.6	1
10592	PCB-1268	11100-14-4	19	U	19	3.6	1
	Project defined QC acceptance limits are not met. All QC is compliant with the laboratory statistically generated limits.						
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.5	U	5.5	2.2	1
12952	EFH (C15-C20)	n.a.	5.5	U	5.5	2.2	1
12952	EFH (C21-C30)	n.a.	15		5.5	2.2	1
12952	EFH (C30-C40)	n.a.	27		11	4.4	1
12952	EFH (C8-C11)	n.a.	5.5	U	5.5	2.2	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-526-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7032824
LLI Group # 1385148
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/23/2013 09:25 by SM

Submitted: 04/24/2013 09:30
Reported: 05/06/2013 13:36

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL526 SDG#: PH037-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
	The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.						
Metals		**SW-846 6010C**	**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	15,400		43.3	8.35	1
06944	Antimony	7440-36-0	4.33	U	4.33	0.542	1
06935	Arsenic	7440-38-2	4.97		4.33	0.357	1
06946	Barium	7440-39-3	69.9		1.08	0.0357	1
06947	Beryllium	7440-41-7	0.629	J	1.08	0.0726	1
07914	Boron	7440-42-8	12.6		10.8	0.899	1
06949	Cadmium	7440-43-9	0.233	J	1.08	0.0357	1
01650	Calcium	7440-70-2	3,050		21.7	4.35	1
06951	Chromium	7440-47-3	20.3		3.25	0.0953	1
06952	Cobalt	7440-48-4	4.64		1.08	0.0975	1
06953	Copper	7440-50-8	11.1		2.17	0.195	1
01654	Iron	7439-89-6	21,500		43.3	4.12	1
06955	Lead	7439-92-1	6.86		3.25	0.509	1
01656	Lithium	7439-93-2	22.4		4.3	0.60	1
01657	Magnesium	7439-95-4	4,640		10.8	1.87	1
06958	Manganese	7439-96-5	251		1.08	0.0899	1
06960	Molybdenum	7439-98-7	0.354	J	2.17	0.184	1
06961	Nickel	7440-02-0	9.24		2.17	0.119	1
10145	Phosphorus	7723-14-0	300		10.8	0.552	1
01662	Potassium	7440-09-7	2,980		108	14.6	1
01667	Sodium	7440-23-5	90.5	J	108	18.1	1
06969	Tin	7440-31-5	3.05	J	10.8	0.238	1
06970	Titanium	7440-32-6	1,140		1.08	0.184	1
06971	Vanadium	7440-62-2	38.1		1.08	0.119	1
06972	Zinc	7440-66-6	50.5		4.33	0.217	1
10146	Zirconium	7440-67-7	2.78	J	5.42	0.899	1
		SW-846 6020A	**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.159	J	0.433	0.108	2
06142	Silver	7440-22-4	0.0470	J	0.217	0.0217	2
06144	Strontium	7440-24-6	21.8		0.433	0.0368	2
06145	Thallium	7440-28-0	0.297		0.217	0.0325	2
		SW-846 7471B	**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0165	J	0.0178	0.0110	1
Wet Chemistry		**SW-846 9045D modified**	**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045C	n.a.	7.26		0.0100	0.0100	1
	The pH was measured in water at 22 C.						
Wet Chemistry		**EPA 160.3 modified**	**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	9.5		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-526-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7032824
LLI Group # 1385148
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/23/2013 09:25 by SM

Submitted: 04/24/2013 09:30
Reported: 05/06/2013 13:36

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL526 SDG#: PH037-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0301	JQ	1.06	0.0258	1
11031	12378-PeCDD	40321-76-4	0.231	JQ	5.30	0.0330	1
11031	123478-HxCDD	39227-28-6	0.212	JQ	5.30	0.0341	1
11031	123678-HxCDD	57653-85-7	0.518	J	5.30	0.0355	1
11031	123789-HxCDD	19408-74-3	0.401	JB	5.30	0.0337	1
11031	1234678-HpCDD	35822-46-9	8.17	B	5.30	0.0285	1
11031	OCDD	3268-87-9	92.6	B	10.6	0.0275	1
11031	2378-TCDF	51207-31-9	0.0866	JQ	1.06	0.0331	1
11031	12378-PeCDF	57117-41-6	1.70	JB	5.30	0.0193	1
11031	23478-PeCDF	57117-31-4	0.258	JBQ	5.30	0.0184	1
11031	123478-HxCDF	70648-26-9	0.206	JB	5.30	0.0283	1
11031	123678-HxCDF	57117-44-9	0.226	JB	5.30	0.0256	1
11031	123789-HxCDF	72918-21-9	0.129	JBQ	5.30	0.0282	1
11031	234678-HxCDF	60851-34-5	0.184	JB	5.30	0.0250	1
11031	1234678-HpCDF	67562-39-4	1.65	JB	5.30	0.0225	1
11031	1234789-HpCDF	55673-89-7	0.149	JB	5.30	0.0299	1
11031	OCDF	39001-02-0	2.71	JB	10.6	0.0267	1
Toxic Equivalents	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.333				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	81	25 - 164
13C12-12378-PeCDD	81	25 - 181
13C12-123478-HxCDD	88	32 - 141
13C12-123678-HxCDD	87	28 - 130
13C12-123789-HxCDD	86	28 - 130
13C12-1234678-HpCDD	86	23 - 140
13C12-OCDD	85	17 - 157
13C12-2378-TCDF	76	24 - 169
13C12-12378-PeCDF	82	24 - 185
13C12-23478-PeCDF	80	21 - 178
13C12-123478-HxCDF	89	26 - 152
13C12-123678-HxCDF	93	26 - 123
13C12-234678-HxCDF	89	28 - 136
13C12-123789-HxCDF	89	29 - 147
13C12-1234678-HpCDF	100	28 - 143
13C12-1234789-HpCDF	82	26 - 138
13C12-OCDF	78	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-526-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7032824
LLI Group # 1385148
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/23/2013 09:25 by SM

Submitted: 04/24/2013 09:30
Reported: 05/06/2013 13:36

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL526 SDG#: PH037-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-526-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7032824
LLI Group # 1385148
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/23/2013 09:25 by SM

Submitted: 04/24/2013 09:30
Reported: 05/06/2013 13:36

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL526 SDG#: PH037-02

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13115SLD026	05/03/2013 04:18	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	13115SLD026	04/25/2013 15:45	Nicholas W Shroyer	1
10592	19a PCBs and PCTs 8082A	SW-846 8082A	1	131160002A	04/27/2013 09:10	Monica M Souders	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	131160002A	04/26/2013 22:15	Karen L Beyer	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	131140009A	04/26/2013 06:02	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	131140009A	04/25/2013 02:00	Sherry L Morrow	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13120002	05/02/2013 06:31	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13120002	04/30/2013 11:15	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010C	1	131220637001	05/03/2013 11:33	Joanne M Gates	1
06944	Antimony	SW-846 6010C	1	131220637001	05/03/2013 11:33	Joanne M Gates	1
06935	Arsenic	SW-846 6010C	1	131220637001	05/03/2013 11:33	Joanne M Gates	1
06946	Barium	SW-846 6010C	1	131220637001	05/03/2013 11:33	Joanne M Gates	1
06947	Beryllium	SW-846 6010C	1	131220637001	05/03/2013 11:33	Joanne M Gates	1
07914	Boron	SW-846 6010C	1	131220637001	05/03/2013 11:33	Joanne M Gates	1
06949	Cadmium	SW-846 6010C	1	131220637001	05/03/2013 11:33	Joanne M Gates	1
01650	Calcium	SW-846 6010C	1	131220637001	05/03/2013 11:33	Joanne M Gates	1
06951	Chromium	SW-846 6010C	1	131220637001	05/03/2013 11:33	Joanne M Gates	1
06952	Cobalt	SW-846 6010C	1	131220637001	05/03/2013 11:33	Joanne M Gates	1
06953	Copper	SW-846 6010C	1	131220637001	05/03/2013 11:33	Joanne M Gates	1
01654	Iron	SW-846 6010C	1	131220637001	05/03/2013 11:33	Joanne M Gates	1
06955	Lead	SW-846 6010C	1	131220637001	05/03/2013 11:33	Joanne M Gates	1
01656	Lithium	SW-846 6010C	1	131220637001	05/03/2013 11:33	Joanne M Gates	1
01657	Magnesium	SW-846 6010C	1	131220637001	05/03/2013 11:33	Joanne M Gates	1
06958	Manganese	SW-846 6010C	1	131220637001	05/03/2013 11:33	Joanne M Gates	1
06960	Molybdenum	SW-846 6010C	1	131220637001	05/03/2013 11:33	Joanne M Gates	1
06961	Nickel	SW-846 6010C	1	131220637001	05/03/2013 11:33	Joanne M Gates	1
10145	Phosphorus	SW-846 6010C	1	131220637001	05/03/2013 11:33	Joanne M Gates	1
01662	Potassium	SW-846 6010C	1	131220637001	05/03/2013 11:33	Joanne M Gates	1
01667	Sodium	SW-846 6010C	1	131220637001	05/03/2013 11:33	Joanne M Gates	1
06969	Tin	SW-846 6010C	1	131220637001	05/03/2013 11:33	Joanne M Gates	1
06970	Titanium	SW-846 6010C	1	131220637001	05/03/2013 11:33	Joanne M Gates	1
06971	Vanadium	SW-846 6010C	1	131220637001	05/03/2013 11:33	Joanne M Gates	1
06972	Zinc	SW-846 6010C	1	131220637001	05/03/2013 11:33	Joanne M Gates	1
10146	Zirconium	SW-846 6010C	1	131220637001	05/03/2013 11:33	Joanne M Gates	1
06141	Selenium	SW-846 6020A	1	131220637001B	05/06/2013 11:05	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	131220637001A	05/06/2013 11:05	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	131220637001A	05/06/2013 11:05	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-526-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7032824
LLI Group # 1385148
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/23/2013 09:25 by SM

Submitted: 04/24/2013 09:30
Reported: 05/06/2013 13:36

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL526 SDG#: PH037-02

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06145	Thallium	SW-846 6020A	1	131220637001A	05/06/2013 11:05	Choon Y Tian	2
00159	3a Mercury 7471A	SW-846 7471B	1	131150638001	04/26/2013 09:19	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	131220637001	05/02/2013 23:16	Annamaria Stipkovits	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	131150638001	04/26/2013 03:00	Annamaria Stipkovits	1
00394	15a pH by 9045C	SW-846 9045D modified	1	13114039401A	04/24/2013 23:01	Clayton C Litchmore	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13115162401B	04/25/2013 19:23	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-526-SA7-SB-3.5-4.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7032825
LLI Group # 1385148
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/23/2013 10:55 by SM

Submitted: 04/24/2013 09:30
Reported: 05/06/2013 13:36

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

S5263 SDG#: PH037-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.8	U	1.8	0.72	1
12969	Acenaphthylene	208-96-8	1.8	U	1.8	0.36	1
12969	Anthracene	120-12-7	1.8	U	1.8	0.36	1
12969	Benzo(a)anthracene	56-55-3	1.8	U	1.8	0.72	1
12969	Benzo(a)pyrene	50-32-8	1.8	U	1.8	0.72	1
12969	Benzo(b)fluoranthene	205-99-2	1.8	U	1.8	0.72	1
12969	Benzo(e)pyrene	192-97-2	18	U	18	3.6	1
12969	Benzo(g,h,i)perylene	191-24-2	1.8	U	1.8	0.72	1
12969	Benzo(k)fluoranthene	207-08-9	1.8	U	1.8	0.72	1
12969	Butylbenzylphthalate	85-68-7	19	U	19	6.5	1
12969	Di-n-butylphthalate	84-74-2	19	U	19	6.5	1
12969	Chrysene	218-01-9	1.8	U	1.8	0.36	1
12969	Dibenz(a,h)anthracene	53-70-3	1.8	U	1.8	0.72	1
12969	Diethylphthalate	84-66-2	19	U	19	6.5	1
12969	Dimethylphthalate	131-11-3	19	U	19	6.5	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	19	U	19	6.5	1
12969	Fluoranthene	206-44-0	1.8	U	1.8	0.72	1
12969	Fluorene	86-73-7	1.8	U	1.8	0.72	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.8	U	1.8	0.72	1
12969	1-Methylnaphthalene	90-12-0	1.8	U	1.8	0.72	1
12969	2-Methylnaphthalene	91-57-6	1.8	U	1.8	0.72	1
12969	Naphthalene	91-20-3	1.8	U	1.8	0.72	1
12969	N-Nitrosodimethylamine	62-75-9	1.8	U	1.8	0.72	1
12969	Di-n-octylphthalate	117-84-0	19	U	19	6.5	1
12969	Phenanthrene	85-01-8	1.8	U	1.8	0.72	1
12969	Pyrene	129-00-0	1.8	U	1.8	0.72	1
GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	1.6	U	1.6	0.3	36.13
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
10592	Aroclor 5432	63496-31-1	35	U	35	11	1
10592	Aroclor 5442	12642-23-8	35	U	35	11	1
10592	Aroclor 5460	11126-42-4	35	U	35	11	1
10592	PCB-1016	12674-11-2	18	U	18	3.5	1
10592	PCB-1221	11104-28-2	18	U	18	5.5	1
10592	PCB-1232	11141-16-5	18	U	18	4.4	1
10592	PCB-1242	53469-21-9	18	U	18	3.5	1
10592	PCB-1248	12672-29-6	18	U	18	3.5	1
10592	PCB-1254	11097-69-1	18	U	18	4.7	1
10592	PCB-1260	11096-82-5	18	U	18	4.2	1
10592	PCB-1262	37324-23-5	18	U	18	3.5	1
10592	PCB-1268	11100-14-4	18	U	18	3.5	1
	Project defined QC acceptance limits are not met. All QC is compliant with the laboratory statistically generated limits.						
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.4	U	5.4	2.2	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-526-SA7-SB-3.5-4.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7032825
LLI Group # 1385148
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/23/2013 10:55 by SM

Submitted: 04/24/2013 09:30
Reported: 05/06/2013 13:36

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

S5263 SDG#: PH037-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C15-C20)	n.a.	5.4	U	5.4	2.2	1
12952	EFH (C21-C30)	n.a.	9.2		5.4	2.2	1
12952	EFH (C30-C40)	n.a.	24		11	4.3	1
12952	EFH (C8-C11)	n.a.	5.4	U	5.4	2.2	1
	The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.						
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	20,000		41.4	7.98	1
06944	Antimony	7440-36-0	0.729	J	4.14	0.518	1
06935	Arsenic	7440-38-2	5.22		4.14	0.342	1
06946	Barium	7440-39-3	65.3		1.04	0.0342	1
06947	Beryllium	7440-41-7	0.817	J	1.04	0.0693	1
07914	Boron	7440-42-8	11.6		10.4	0.859	1
06949	Cadmium	7440-43-9	0.0952	J	1.04	0.0342	1
01650	Calcium	7440-70-2	2,520		20.7	4.16	1
06951	Chromium	7440-47-3	21.9		3.11	0.0911	1
06952	Cobalt	7440-48-4	3.89		1.04	0.0932	1
06953	Copper	7440-50-8	9.60		2.07	0.186	1
01654	Iron	7439-89-6	23,500		41.4	3.93	1
06955	Lead	7439-92-1	6.34		3.11	0.486	1
01656	Lithium	7439-93-2	24.5		4.1	0.57	1
01657	Magnesium	7439-95-4	4,360		10.4	1.79	1
06958	Manganese	7439-96-5	171		1.04	0.0859	1
06960	Molybdenum	7439-98-7	0.528	J	2.07	0.176	1
06961	Nickel	7440-02-0	9.17		2.07	0.114	1
10145	Phosphorus	7723-14-0	164		10.4	0.528	1
01662	Potassium	7440-09-7	1,370		104	14.0	1
01667	Sodium	7440-23-5	118		104	17.3	1
06969	Tin	7440-31-5	3.24	J	10.4	0.228	1
06970	Titanium	7440-32-6	1,100		1.04	0.176	1
06971	Vanadium	7440-62-2	40.4		1.04	0.114	1
06972	Zinc	7440-66-6	41.0		4.14	0.207	1
10146	Zirconium	7440-67-7	2.90	J	5.18	0.859	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.104	J	0.414	0.104	2
06142	Silver	7440-22-4	0.0711	J	0.207	0.0207	2
06144	Strontium	7440-24-6	22.4		0.414	0.0352	2
06145	Thallium	7440-28-0	0.280		0.207	0.0311	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0156	J	0.0174	0.0108	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045C	n.a.	6.78		0.0100	0.0100	1
	The pH was measured in water at 22 C.						

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-526-SA7-SB-3.5-4.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7032825
LLI Group # 1385148
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/23/2013 10:55 by SM

Submitted: 04/24/2013 09:30
Reported: 05/06/2013 13:36

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

S5263 SDG#: PH037-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Wet Chemistry	**EPA 160.3 modified**		%	%	%	
11624	14a Moisture Content by 160.3	n.a.	7.1	0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.					

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-526-SA7-SB-3.5-4.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7032825
LLI Group # 1385148
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/23/2013 10:55 by SM

Submitted: 04/24/2013 09:30
Reported: 05/06/2013 13:36

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

S5263 SDG#: PH037-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	1.03	U	1.03	0.0193	1
11031	12378-PeCDD	40321-76-4	0.0848	JQ	5.16	0.0208	1
11031	123478-HxCDD	39227-28-6	0.0344	JQ	5.16	0.0198	1
11031	123678-HxCDD	57653-85-7	0.0768	JQ	5.16	0.0201	1
11031	123789-HxCDD	19408-74-3	0.0729	JB	5.16	0.0187	1
11031	1234678-HpCDD	35822-46-9	1.41	JB	5.16	0.0233	1
11031	OCDD	3268-87-9	72.0	B	10.3	0.0206	1
11031	2378-TCDF	51207-31-9	0.0316	J	1.03	0.0198	1
11031	12378-PeCDF	57117-41-6	0.316	JB	5.16	0.0134	1
11031	23478-PeCDF	57117-31-4	0.0855	JB	5.16	0.0128	1
11031	123478-HxCDF	70648-26-9	0.0698	JB	5.16	0.0156	1
11031	123678-HxCDF	57117-44-9	0.0623	JBQ	5.16	0.0150	1
11031	123789-HxCDF	72918-21-9	5.16	U	5.16	0.0157	1
11031	234678-HxCDF	60851-34-5	0.0431	JBQ	5.16	0.0144	1
11031	1234678-HpCDF	67562-39-4	0.358	JB	5.16	0.0141	1
11031	1234789-HpCDF	55673-89-7	0.0558	JBQ	5.16	0.0174	1
11031	OCDF	39001-02-0	0.578	JB	10.3	0.0202	1
Toxic Equivalents	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.0920				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	74	25 - 164
13C12-12378-PeCDD	79	25 - 181
13C12-123478-HxCDD	84	32 - 141
13C12-123678-HxCDD	86	28 - 130
13C12-123789-HxCDD	85	28 - 130
13C12-1234678-HpCDD	84	23 - 140
13C12-OCDD	85	17 - 157
13C12-2378-TCDF	71	24 - 169
13C12-12378-PeCDF	79	24 - 185
13C12-23478-PeCDF	79	21 - 178
13C12-123478-HxCDF	87	26 - 152
13C12-123678-HxCDF	90	26 - 123
13C12-234678-HxCDF	87	28 - 136
13C12-123789-HxCDF	90	29 - 147
13C12-1234678-HpCDF	97	28 - 143
13C12-1234789-HpCDF	84	26 - 138
13C12-OCDF	82	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration

*=This limit was used in the evaluation of the final result

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Analysis Report

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Sample Description: SL-526-SA7-SB-3.5-4.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7032825
LLI Group # 1385148
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/23/2013 10:55 by SM

Submitted: 04/24/2013 09:30
Reported: 05/06/2013 13:36

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

S5263 SDG#: PH037-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-526-SA7-SB-3.5-4.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7032825
LLI Group # 1385148
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/23/2013 10:55 by SM

Submitted: 04/24/2013 09:30
Reported: 05/06/2013 13:36

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

S5263 SDG#: PH037-03

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13115SLD026	05/03/2013	04:49	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	13115SLD026	04/25/2013	15:45	Nicholas W Shroyer	1
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	13108A16D	04/26/2013	18:57	Laura M Krieger	36.13
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201311430857	04/24/2013	15:42	Mitchell R Washel	n.a.
10592	19a PCBs and PCTs 8082A	SW-846 8082A	1	131160002A	04/27/2013	09:28	Monica M Souders	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	131160002A	04/26/2013	22:15	Karen L Beyer	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	131140009A	04/26/2013	06:23	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	131140009A	04/25/2013	02:00	Sherry L Morrow	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13120002	05/02/2013	07:28	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13120002	04/30/2013	11:15	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010C	1	131220637001	05/03/2013	11:36	Joanne M Gates	1
06944	Antimony	SW-846 6010C	1	131220637001	05/03/2013	11:36	Joanne M Gates	1
06935	Arsenic	SW-846 6010C	1	131220637001	05/03/2013	11:36	Joanne M Gates	1
06946	Barium	SW-846 6010C	1	131220637001	05/03/2013	11:36	Joanne M Gates	1
06947	Beryllium	SW-846 6010C	1	131220637001	05/03/2013	11:36	Joanne M Gates	1
07914	Boron	SW-846 6010C	1	131220637001	05/03/2013	11:36	Joanne M Gates	1
06949	Cadmium	SW-846 6010C	1	131220637001	05/03/2013	11:36	Joanne M Gates	1
01650	Calcium	SW-846 6010C	1	131220637001	05/03/2013	11:36	Joanne M Gates	1
06951	Chromium	SW-846 6010C	1	131220637001	05/03/2013	11:36	Joanne M Gates	1
06952	Cobalt	SW-846 6010C	1	131220637001	05/03/2013	11:36	Joanne M Gates	1
06953	Copper	SW-846 6010C	1	131220637001	05/03/2013	11:36	Joanne M Gates	1
01654	Iron	SW-846 6010C	1	131220637001	05/03/2013	11:36	Joanne M Gates	1
06955	Lead	SW-846 6010C	1	131220637001	05/03/2013	11:36	Joanne M Gates	1
01656	Lithium	SW-846 6010C	1	131220637001	05/03/2013	11:36	Joanne M Gates	1
01657	Magnesium	SW-846 6010C	1	131220637001	05/03/2013	11:36	Joanne M Gates	1
06958	Manganese	SW-846 6010C	1	131220637001	05/03/2013	11:36	Joanne M Gates	1
06960	Molybdenum	SW-846 6010C	1	131220637001	05/03/2013	11:36	Joanne M Gates	1
06961	Nickel	SW-846 6010C	1	131220637001	05/03/2013	11:36	Joanne M Gates	1
10145	Phosphorus	SW-846 6010C	1	131220637001	05/03/2013	11:36	Joanne M Gates	1
01662	Potassium	SW-846 6010C	1	131220637001	05/03/2013	11:36	Joanne M Gates	1
01667	Sodium	SW-846 6010C	1	131220637001	05/03/2013	11:36	Joanne M Gates	1
06969	Tin	SW-846 6010C	1	131220637001	05/03/2013	11:36	Joanne M Gates	1
06970	Titanium	SW-846 6010C	1	131220637001	05/03/2013	11:36	Joanne M Gates	1
06971	Vanadium	SW-846 6010C	1	131220637001	05/03/2013	11:36	Joanne M Gates	1
06972	Zinc	SW-846 6010C	1	131220637001	05/03/2013	11:36	Joanne M Gates	1
10146	Zirconium	SW-846 6010C	1	131220637001	05/03/2013	11:36	Joanne M Gates	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-526-SA7-SB-3.5-4.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7032825
LLI Group # 1385148
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/23/2013 10:55 by SM

Submitted: 04/24/2013 09:30
Reported: 05/06/2013 13:36

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

S5263 SDG#: PH037-03

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06141	Selenium	SW-846 6020A	1	131220637001B	05/06/2013 11:07	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	131220637001A	05/06/2013 11:07	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	131220637001A	05/06/2013 11:07	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	131220637001A	05/06/2013 11:07	Choon Y Tian	2
00159	3a Mercury 7471A	SW-846 7471B	1	131150638001	04/26/2013 09:21	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	131220637001	05/02/2013 23:16	Annamaria Stipkovits	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	131150638001	04/26/2013 03:00	Annamaria Stipkovits	1
00394	15a pH by 9045C	SW-846 9045D modified	1	13114039401A	04/24/2013 23:01	Clayton C Litchmore	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13115162401B	04/25/2013 19:23	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-512-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7032826
LLI Group # 1385148
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/23/2013 11:35 by SM

Submitted: 04/24/2013 09:30
Reported: 05/06/2013 13:36

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL512 SDG#: PH037-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.68	1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.34	1
12969	Anthracene	120-12-7	1.7	U	1.7	0.34	1
12969	Benzo(a)anthracene	56-55-3	1.7	U	1.7	0.68	1
12969	Benzo(a)pyrene	50-32-8	1.7	U	1.7	0.68	1
12969	Benzo(b)fluoranthene	205-99-2	1.1	J	1.7	0.68	1
12969	Benzo(e)pyrene	192-97-2	17	U	17	3.4	1
12969	Benzo(g,h,i)perylene	191-24-2	1.7	U	1.7	0.68	1
12969	Benzo(k)fluoranthene	207-08-9	1.7	U	1.7	0.68	1
12969	Butylbenzylphthalate	85-68-7	18	U	18	6.2	1
12969	Di-n-butylphthalate	84-74-2	18	U	18	6.2	1
12969	Chrysene	218-01-9	0.90	J	1.7	0.34	1
12969	Dibenz(a,h)anthracene	53-70-3	1.7	U	1.7	0.68	1
12969	Diethylphthalate	84-66-2	18	U	18	6.2	1
12969	Dimethylphthalate	131-11-3	18	U	18	6.2	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	18	U	18	6.2	1
12969	Fluoranthene	206-44-0	1.0	J	1.7	0.68	1
12969	Fluorene	86-73-7	1.7	U	1.7	0.68	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.7	U	1.7	0.68	1
12969	1-Methylnaphthalene	90-12-0	1.7	U	1.7	0.68	1
12969	2-Methylnaphthalene	91-57-6	1.7	U	1.7	0.68	1
12969	Naphthalene	91-20-3	1.7	U	1.7	0.68	1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.68	1
12969	Di-n-octylphthalate	117-84-0	18	U	18	6.2	1
12969	Phenanthrene	85-01-8	1.7	U	1.7	0.68	1
12969	Pyrene	129-00-0	0.99	J	1.7	0.68	1
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
10592	Aroclor 5432	63496-31-1	34	U	34	10	1
10592	Aroclor 5442	12642-23-8	34	U	34	10	1
10592	Aroclor 5460	11126-42-4	34	U	34	10	1
10592	PCB-1016	12674-11-2	17	U	17	3.4	1
10592	PCB-1221	11104-28-2	17	U	17	5.2	1
10592	PCB-1232	11141-16-5	17	U	17	4.2	1
10592	PCB-1242	53469-21-9	17	U	17	3.4	1
10592	PCB-1248	12672-29-6	17	U	17	3.4	1
10592	PCB-1254	11097-69-1	17	U	17	4.5	1
10592	PCB-1260	11096-82-5	17	U	17	4.0	1
10592	PCB-1262	37324-23-5	17	U	17	3.4	1
10592	PCB-1268	11100-14-4	17	U	17	3.4	1
	Project defined QC acceptance limits are not met. All QC is compliant with the laboratory statistically generated limits.						
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.1	U	5.1	2.1	1
12952	EFH (C15-C20)	n.a.	5.1	U	5.1	2.1	1
12952	EFH (C21-C30)	n.a.	7.8		5.1	2.1	1
12952	EFH (C30-C40)	n.a.	29		10	4.1	1
12952	EFH (C8-C11)	n.a.	5.1	U	5.1	2.1	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-512-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7032826
LLI Group # 1385148
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/23/2013 11:35 by SM

Submitted: 04/24/2013 09:30
Reported: 05/06/2013 13:36

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL512 SDG#: PH037-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
	The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.						
Metals		**SW-846 6010C**	**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	12,900		40.6	7.83	1
06944	Antimony	7440-36-0	0.627	J	4.06	0.508	1
06935	Arsenic	7440-38-2	4.66		4.06	0.335	1
06946	Barium	7440-39-3	70.4		1.02	0.0335	1
06947	Beryllium	7440-41-7	0.556	J	1.02	0.0680	1
07914	Boron	7440-42-8	1.09	J	10.2	0.843	1
06949	Cadmium	7440-43-9	0.152	J	1.02	0.0335	1
01650	Calcium	7440-70-2	3,070		20.3	4.08	1
06951	Chromium	7440-47-3	17.3		3.05	0.0894	1
06952	Cobalt	7440-48-4	4.43		1.02	0.0914	1
06953	Copper	7440-50-8	10.9		2.03	0.183	1
01654	Iron	7439-89-6	20,000		40.6	3.86	1
06955	Lead	7439-92-1	5.65		3.05	0.477	1
01656	Lithium	7439-93-2	21.7		4.1	0.56	1
01657	Magnesium	7439-95-4	4,600		10.2	1.76	1
06958	Manganese	7439-96-5	270		1.02	0.0843	1
06960	Molybdenum	7439-98-7	0.186	J	2.03	0.173	1
06961	Nickel	7440-02-0	8.79		2.03	0.112	1
10145	Phosphorus	7723-14-0	315		10.2	0.518	1
01662	Potassium	7440-09-7	2,670		102	13.7	1
01667	Sodium	7440-23-5	63.8	J	102	17.0	1
06969	Tin	7440-31-5	2.76	J	10.2	0.223	1
06970	Titanium	7440-32-6	1,120		1.02	0.173	1
06971	Vanadium	7440-62-2	34.8		1.02	0.112	1
06972	Zinc	7440-66-6	51.2		4.06	0.203	1
10146	Zirconium	7440-67-7	2.31	J	5.08	0.843	1
		SW-846 6020A	**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.164	J	0.406	0.102	2
06142	Silver	7440-22-4	0.203	U	0.203	0.0203	2
06144	Strontium	7440-24-6	21.9		0.406	0.0345	2
06145	Thallium	7440-28-0	0.239		0.203	0.0305	2
		SW-846 7471B	**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0133	J	0.0162	0.0100	1
Wet Chemistry		**SW-846 9045D modified**	**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045C	n.a.	7.24		0.0100	0.0100	1
	The pH was measured in water at 21.9 C.						
Wet Chemistry		**EPA 160.3 modified**	**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	2.5		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-512-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7032826
LLI Group # 1385148
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/23/2013 11:35 by SM

Submitted: 04/24/2013 09:30
Reported: 05/06/2013 13:36

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL512 SDG#: PH037-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	0.999	U	0.999	0.0196	1
11031	12378-PeCDD	40321-76-4	0.0631	JQ	4.99	0.0196	1
11031	123478-HxCDD	39227-28-6	0.0741	J	4.99	0.0222	1
11031	123678-HxCDD	57653-85-7	0.196	JQ	4.99	0.0219	1
11031	123789-HxCDD	19408-74-3	0.187	JB	4.99	0.0213	1
11031	1234678-HpCDD	35822-46-9	3.84	JB	4.99	0.0188	1
11031	OCDD	3268-87-9	39.4	B	9.99	0.0163	1
11031	2378-TCDF	51207-31-9	0.0662	JQ	0.999	0.0189	1
11031	12378-PeCDF	57117-41-6	0.175	JB	4.99	0.0122	1
11031	23478-PeCDF	57117-31-4	0.0832	JBQ	4.99	0.0121	1
11031	123478-HxCDF	70648-26-9	0.0849	JBQ	4.99	0.0180	1
11031	123678-HxCDF	57117-44-9	0.0905	JBQ	4.99	0.0167	1
11031	123789-HxCDF	72918-21-9	0.0642	JBQ	4.99	0.0193	1
11031	234678-HxCDF	60851-34-5	0.0843	JB	4.99	0.0169	1
11031	1234678-HpCDF	67562-39-4	0.796	JB	4.99	0.0119	1
11031	1234789-HpCDF	55673-89-7	0.0704	JBQ	4.99	0.0178	1
11031	OCDF	39001-02-0	1.66	JB	9.99	0.0189	1
Toxic Equivalents	**EPA 1613B**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.0985				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	73	25 - 164
13C12-12378-PeCDD	77	25 - 181
13C12-123478-HxCDD	80	32 - 141
13C12-123678-HxCDD	83	28 - 130
13C12-123789-HxCDD	80	28 - 130
13C12-1234678-HpCDD	80	23 - 140
13C12-OCDD	79	17 - 157
13C12-2378-TCDF	71	24 - 169
13C12-12378-PeCDF	80	24 - 185
13C12-23478-PeCDF	77	21 - 178
13C12-123478-HxCDF	82	26 - 152
13C12-123678-HxCDF	87	26 - 123
13C12-234678-HxCDF	82	28 - 136
13C12-123789-HxCDF	80	29 - 147
13C12-1234678-HpCDF	95	28 - 143
13C12-1234789-HpCDF	75	26 - 138
13C12-OCDF	73	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration

*=This limit was used in the evaluation of the final result

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Analysis Report

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Sample Description: SL-512-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7032826
LLI Group # 1385148
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/23/2013 11:35 by SM

Submitted: 04/24/2013 09:30
Reported: 05/06/2013 13:36

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL512 SDG#: PH037-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

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2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Analysis Report

Sample Description: SL-512-SA7-SB-0.0-0.5 Soil
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Project Name: Phase 3 Subarea 7

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CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL512 SDG#: PH037-04

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13115SLD026	05/03/2013	05:21	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	13115SLD026	04/25/2013	15:45	Nicholas W Shroyer	1
10592	19a PCBs and PCTs 8082A	SW-846 8082A	1	131160002A	04/27/2013	09:47	Monica M Souders	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	131160002A	04/26/2013	22:15	Karen L Beyer	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	131140009A	04/26/2013	06:44	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	131140009A	04/25/2013	02:00	Sherry L Morrow	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13120002	05/02/2013	08:24	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13120002	04/30/2013	11:15	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010C	1	131220637001	05/03/2013	17:47	Katlin N Cataldi	1
06944	Antimony	SW-846 6010C	1	131220637001	05/03/2013	17:47	Katlin N Cataldi	1
06935	Arsenic	SW-846 6010C	1	131220637001	05/03/2013	17:47	Katlin N Cataldi	1
06946	Barium	SW-846 6010C	1	131220637001	05/03/2013	17:47	Katlin N Cataldi	1
06947	Beryllium	SW-846 6010C	1	131220637001	05/03/2013	17:47	Katlin N Cataldi	1
07914	Boron	SW-846 6010C	1	131220637001	05/03/2013	17:47	Katlin N Cataldi	1
06949	Cadmium	SW-846 6010C	1	131220637001	05/03/2013	17:47	Katlin N Cataldi	1
01650	Calcium	SW-846 6010C	1	131220637001	05/03/2013	17:47	Katlin N Cataldi	1
06951	Chromium	SW-846 6010C	1	131220637001	05/03/2013	17:47	Katlin N Cataldi	1
06952	Cobalt	SW-846 6010C	1	131220637001	05/03/2013	17:47	Katlin N Cataldi	1
06953	Copper	SW-846 6010C	1	131220637001	05/03/2013	17:47	Katlin N Cataldi	1
01654	Iron	SW-846 6010C	1	131220637001	05/03/2013	17:47	Katlin N Cataldi	1
06955	Lead	SW-846 6010C	1	131220637001	05/03/2013	17:47	Katlin N Cataldi	1
01656	Lithium	SW-846 6010C	1	131220637001	05/03/2013	17:47	Katlin N Cataldi	1
01657	Magnesium	SW-846 6010C	1	131220637001	05/03/2013	17:47	Katlin N Cataldi	1
06958	Manganese	SW-846 6010C	1	131220637001	05/03/2013	17:47	Katlin N Cataldi	1
06960	Molybdenum	SW-846 6010C	1	131220637001	05/03/2013	17:47	Katlin N Cataldi	1
06961	Nickel	SW-846 6010C	1	131220637001	05/03/2013	17:47	Katlin N Cataldi	1
10145	Phosphorus	SW-846 6010C	1	131220637001	05/03/2013	17:47	Katlin N Cataldi	1
01662	Potassium	SW-846 6010C	1	131220637001	05/03/2013	17:47	Katlin N Cataldi	1
01667	Sodium	SW-846 6010C	1	131220637001	05/03/2013	17:47	Katlin N Cataldi	1
06969	Tin	SW-846 6010C	1	131220637001	05/03/2013	17:47	Katlin N Cataldi	1
06970	Titanium	SW-846 6010C	1	131220637001	05/03/2013	17:47	Katlin N Cataldi	1
06971	Vanadium	SW-846 6010C	1	131220637001	05/03/2013	17:47	Katlin N Cataldi	1
06972	Zinc	SW-846 6010C	1	131220637001	05/03/2013	17:47	Katlin N Cataldi	1
10146	Zirconium	SW-846 6010C	1	131220637001	05/03/2013	17:47	Katlin N Cataldi	1
06141	Selenium	SW-846 6020A	1	131220637001B	05/06/2013	11:14	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	131220637001A	05/06/2013	11:14	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	131220637001A	05/06/2013	11:14	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-512-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7032826
LLI Group # 1385148
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/23/2013 11:35 by SM

Submitted: 04/24/2013 09:30
Reported: 05/06/2013 13:36

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL512 SDG#: PH037-04

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06145	Thallium	SW-846 6020A	1	131220637001A	05/06/2013 11:14	Choon Y Tian	2
00159	3a Mercury 7471A	SW-846 7471B	1	131150638001	04/26/2013 09:23	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	131220637001	05/02/2013 23:16	Annamaria Stipkovits	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	131150638001	04/26/2013 03:00	Annamaria Stipkovits	1
00394	15a pH by 9045C	SW-846 9045D modified	1	13114039401A	04/24/2013 23:01	Clayton C Litchmore	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13115162401B	04/25/2013 19:23	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-525-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7032827
LLI Group # 1385148
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/23/2013 14:20 by SM

Submitted: 04/24/2013 09:30
Reported: 05/06/2013 13:36

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL525 SDG#: PH037-05*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.70	1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.35	1
12969	Anthracene	120-12-7	0.50	J	1.7	0.35	1
12969	Benzo(a)anthracene	56-55-3	1.1	J	1.7	0.70	1
12969	Benzo(a)pyrene	50-32-8	1.6	J	1.7	0.70	1
12969	Benzo(b)fluoranthene	205-99-2	4.1		1.7	0.70	1
12969	Benzo(e)pyrene	192-97-2	18	U	18	3.5	1
12969	Benzo(g,h,i)perylene	191-24-2	1.4	J	1.7	0.70	1
12969	Benzo(k)fluoranthene	207-08-9	1.6	J	1.7	0.70	1
12969	Butylbenzylphthalate	85-68-7	19	U	19	6.3	1
12969	Di-n-butylphthalate	84-74-2	19	U	19	6.3	1
12969	Chrysene	218-01-9	3.5		1.7	0.35	1
12969	Dibenz(a,h)anthracene	53-70-3	1.7	U	1.7	0.70	1
12969	Diethylphthalate	84-66-2	19	U	19	6.3	1
12969	Dimethylphthalate	131-11-3	19	U	19	6.3	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	11	J	19	6.3	1
12969	Fluoranthene	206-44-0	3.7		1.7	0.70	1
12969	Fluorene	86-73-7	2.6		1.7	0.70	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.5	J	1.7	0.70	1
12969	1-Methylnaphthalene	90-12-0	1.7	U	1.7	0.70	1
12969	2-Methylnaphthalene	91-57-6	0.81	J	1.7	0.70	1
12969	Naphthalene	91-20-3	0.96	J	1.7	0.70	1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.70	1
12969	Di-n-octylphthalate	117-84-0	19	U	19	6.3	1
12969	Phenanthrene	85-01-8	2.0		1.7	0.70	1
12969	Pyrene	129-00-0	2.9		1.7	0.70	1
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
10592	Aroclor 5432	63496-31-1	34	U	34	10	1
10592	Aroclor 5442	12642-23-8	34	U	34	10	1
10592	Aroclor 5460	11126-42-4	34	U	34	10	1
10592	PCB-1016	12674-11-2	18	U	18	3.4	1
10592	PCB-1221	11104-28-2	18	U	18	5.3	1
10592	PCB-1232	11141-16-5	18	U	18	4.3	1
10592	PCB-1242	53469-21-9	18	U	18	3.4	1
10592	PCB-1248	12672-29-6	18	U	18	3.4	1
10592	PCB-1254	11097-69-1	47		18	4.6	1
10592	PCB-1260	11096-82-5	18	U	18	4.1	1
10592	PCB-1262	37324-23-5	18	U	18	3.4	1
10592	PCB-1268	11100-14-4	18	U	18	3.4	1
	Project defined QC acceptance limits are not met. All QC is compliant with the laboratory statistically generated limits.						
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	26	U	26	10	5
12952	EFH (C15-C20)	n.a.	26	U	26	10	5
12952	EFH (C21-C30)	n.a.	23	J	26	10	5
12952	EFH (C30-C40)	n.a.	72		52	21	5
12952	EFH (C8-C11)	n.a.	26	U	26	10	5

*=This limit was used in the evaluation of the final result

Sample Description: SL-525-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7032827
LLI Group # 1385148
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/23/2013 14:20 by SM

Submitted: 04/24/2013 09:30
Reported: 05/06/2013 13:36

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL525 SDG#: PH037-05*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
	The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits. A target analyte(s) in the continuing calibration verification standard is outside the QC acceptance limits. The following corrective action was taken: The analysis was repeated and the continuing calibration verification standard bracketing the sample on the second trial is also outside the acceptance limits. This effect is attributed to the sample matrix and the data is reported.						
Metals		**SW-846 6010C**	**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	13,000		40.9	7.88	1
06944	Antimony	7440-36-0	0.545	J	4.09	0.511	1
06935	Arsenic	7440-38-2	4.95		4.09	0.337	1
06946	Barium	7440-39-3	66.2		1.02	0.0337	1
06947	Beryllium	7440-41-7	0.510	J	1.02	0.0685	1
07914	Boron	7440-42-8	3.20	J	10.2	0.849	1
06949	Cadmium	7440-43-9	0.231	J	1.02	0.0337	1
01650	Calcium	7440-70-2	3,910		20.4	4.11	1
06951	Chromium	7440-47-3	16.1		3.07	0.0900	1
06952	Cobalt	7440-48-4	3.90		1.02	0.0920	1
06953	Copper	7440-50-8	10.7		2.04	0.184	1
01654	Iron	7439-89-6	18,200		40.9	3.88	1
06955	Lead	7439-92-1	12.5		3.07	0.480	1
01656	Lithium	7439-93-2	21.1		4.1	0.56	1
01657	Magnesium	7439-95-4	3,950		10.2	1.77	1
06958	Manganese	7439-96-5	228		1.02	0.0849	1
06960	Molybdenum	7439-98-7	0.388	J	2.04	0.174	1
06961	Nickel	7440-02-0	8.31		2.04	0.112	1
10145	Phosphorus	7723-14-0	305		10.2	0.521	1
01662	Potassium	7440-09-7	3,300		102	13.8	1
01667	Sodium	7440-23-5	67.4	J	102	17.1	1
06969	Tin	7440-31-5	2.79	J	10.2	0.225	1
06970	Titanium	7440-32-6	1,080		1.02	0.174	1
06971	Vanadium	7440-62-2	31.7		1.02	0.112	1
06972	Zinc	7440-66-6	53.1		4.09	0.204	1
10146	Zirconium	7440-67-7	2.29	J	5.11	0.849	1
		SW-846 6020A	**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.182	J	0.409	0.102	2
06142	Silver	7440-22-4	0.0696	J	0.204	0.0204	2
06144	Strontium	7440-24-6	26.5		0.409	0.0348	2
06145	Thallium	7440-28-0	0.286		0.204	0.0307	2
		SW-846 7471B	**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0311		0.0164	0.0102	1
Wet Chemistry		**SW-846 9045D modified**	**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045C	n.a.	6.66		0.0100	0.0100	1
	The pH was measured in water at 21.8 C.						

*=This limit was used in the evaluation of the final result

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Analysis Report

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Sample Description: SL-525-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7032827
LLI Group # 1385148
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/23/2013 14:20 by SM

Submitted: 04/24/2013 09:30
Reported: 05/06/2013 13:36

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL525 SDG#: PH037-05*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Wet Chemistry	**EPA 160.3 modified**		%	%	%	
11624	14a Moisture Content by 160.3	n.a.	4.1	0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.					

*=This limit was used in the evaluation of the final result

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Fairfax VA 22030

SL525 SDG#: PH037-05*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	1.02	U	1.02	0.0354	1
11031	12378-PeCDD	40321-76-4	0.235	J	5.08	0.0588	1
11031	123478-HxCDD	39227-28-6	0.290	J	5.08	0.0472	1
11031	123678-HxCDD	57653-85-7	1.23	J	5.08	0.0476	1
11031	123789-HxCDD	19408-74-3	0.719	JB	5.08	0.0451	1
11031	1234678-HpCDD	35822-46-9	17.8	B	5.08	0.0428	1
11031	OCDD	3268-87-9	174	B	10.2	0.0343	1
11031	2378-TCDF	51207-31-9	0.350	J	1.02	0.0780	1
11031	12378-PeCDF	57117-41-6	4.47	JB	5.08	0.0426	1
11031	23478-PeCDF	57117-31-4	0.726	JBQ	5.08	0.0416	1
11031	123478-HxCDF	70648-26-9	0.393	JB	5.08	0.0433	1
11031	123678-HxCDF	57117-44-9	0.544	JB	5.08	0.0411	1
11031	123789-HxCDF	72918-21-9	0.129	JB	5.08	0.0474	1
11031	234678-HxCDF	60851-34-5	0.571	JB	5.08	0.0440	1
11031	1234678-HpCDF	67562-39-4	6.02	B	5.08	0.0344	1
11031	1234789-HpCDF	55673-89-7	0.351	JB	5.08	0.0483	1
11031	OCDF	39001-02-0	7.98	JB	10.2	0.0340	1
Toxic Equivalents	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	1.09				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	51	25 - 164
13C12-12378-PeCDD	52	25 - 181
13C12-123478-HxCDD	57	32 - 141
13C12-123678-HxCDD	59	28 - 130
13C12-123789-HxCDD	56	28 - 130
13C12-1234678-HpCDD	55	23 - 140
13C12-OCDD	55	17 - 157
13C12-2378-TCDF	48	24 - 169
13C12-12378-PeCDF	54	24 - 185
13C12-23478-PeCDF	52	21 - 178
13C12-123478-HxCDF	57	26 - 152
13C12-123678-HxCDF	59	26 - 123
13C12-234678-HxCDF	57	28 - 136
13C12-123789-HxCDF	57	29 - 147
13C12-1234678-HpCDF	65	28 - 143
13C12-1234789-HpCDF	54	26 - 138
13C12-OCDF	52	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration

*=This limit was used in the evaluation of the final result

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Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: SL-525-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7032827
LLI Group # 1385148
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/23/2013 14:20 by SM

Submitted: 04/24/2013 09:30
Reported: 05/06/2013 13:36

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL525 SDG#: PH037-05*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

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Analysis Report

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3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL525 SDG#: PH037-05*

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13115SLD026	05/03/2013	05:52	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	13115SLD026	04/25/2013	15:45	Nicholas W Shroyer	1
10592	19a PCBs and PCTs 8082A	SW-846 8082A	1	131160002A	04/27/2013	10:05	Monica M Souders	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	131160002A	04/26/2013	22:15	Karen L Beyer	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	131140009A	04/27/2013	03:18	Heather E Williams	5
12959	EFH soil ext.(microwave)	SW-846 3546	1	131140009A	04/25/2013	02:00	Sherry L Morrow	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13120002	05/02/2013	09:21	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13120002	04/30/2013	11:15	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010C	1	131220637001	05/03/2013	17:51	Katlin N Cataldi	1
06944	Antimony	SW-846 6010C	1	131220637001	05/03/2013	17:51	Katlin N Cataldi	1
06935	Arsenic	SW-846 6010C	1	131220637001	05/03/2013	17:51	Katlin N Cataldi	1
06946	Barium	SW-846 6010C	1	131220637001	05/03/2013	17:51	Katlin N Cataldi	1
06947	Beryllium	SW-846 6010C	1	131220637001	05/03/2013	17:51	Katlin N Cataldi	1
07914	Boron	SW-846 6010C	1	131220637001	05/03/2013	17:51	Katlin N Cataldi	1
06949	Cadmium	SW-846 6010C	1	131220637001	05/03/2013	17:51	Katlin N Cataldi	1
01650	Calcium	SW-846 6010C	1	131220637001	05/03/2013	17:51	Katlin N Cataldi	1
06951	Chromium	SW-846 6010C	1	131220637001	05/03/2013	17:51	Katlin N Cataldi	1
06952	Cobalt	SW-846 6010C	1	131220637001	05/03/2013	17:51	Katlin N Cataldi	1
06953	Copper	SW-846 6010C	1	131220637001	05/03/2013	17:51	Katlin N Cataldi	1
01654	Iron	SW-846 6010C	1	131220637001	05/03/2013	17:51	Katlin N Cataldi	1
06955	Lead	SW-846 6010C	1	131220637001	05/03/2013	17:51	Katlin N Cataldi	1
01656	Lithium	SW-846 6010C	1	131220637001	05/03/2013	17:51	Katlin N Cataldi	1
01657	Magnesium	SW-846 6010C	1	131220637001	05/03/2013	17:51	Katlin N Cataldi	1
06958	Manganese	SW-846 6010C	1	131220637001	05/03/2013	17:51	Katlin N Cataldi	1
06960	Molybdenum	SW-846 6010C	1	131220637001	05/03/2013	17:51	Katlin N Cataldi	1
06961	Nickel	SW-846 6010C	1	131220637001	05/03/2013	17:51	Katlin N Cataldi	1
10145	Phosphorus	SW-846 6010C	1	131220637001	05/03/2013	17:51	Katlin N Cataldi	1
01662	Potassium	SW-846 6010C	1	131220637001	05/03/2013	17:51	Katlin N Cataldi	1
01667	Sodium	SW-846 6010C	1	131220637001	05/03/2013	17:51	Katlin N Cataldi	1
06969	Tin	SW-846 6010C	1	131220637001	05/03/2013	17:51	Katlin N Cataldi	1
06970	Titanium	SW-846 6010C	1	131220637001	05/03/2013	17:51	Katlin N Cataldi	1
06971	Vanadium	SW-846 6010C	1	131220637001	05/03/2013	17:51	Katlin N Cataldi	1
06972	Zinc	SW-846 6010C	1	131220637001	05/03/2013	17:51	Katlin N Cataldi	1
10146	Zirconium	SW-846 6010C	1	131220637001	05/03/2013	17:51	Katlin N Cataldi	1
06141	Selenium	SW-846 6020A	1	131220637001B	05/06/2013	11:16	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	131220637001A	05/06/2013	11:16	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	131220637001A	05/06/2013	11:16	Choon Y Tian	2

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Analysis Report

Sample Description: SL-525-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7032827
LLI Group # 1385148
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/23/2013 14:20 by SM

Submitted: 04/24/2013 09:30
Reported: 05/06/2013 13:36

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL525 SDG#: PH037-05*

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06145	Thallium	SW-846 6020A	1	131220637001A	05/06/2013 11:16	Choon Y Tian	2
00159	3a Mercury 7471A	SW-846 7471B	1	131150638001	04/26/2013 09:25	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	131220637001	05/02/2013 23:16	Annamaria Stipkovits	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	131150638001	04/26/2013 03:00	Annamaria Stipkovits	1
00394	15a pH by 9045C	SW-846 9045D modified	1	13114039401A	04/24/2013 23:01	Clayton C Litchmore	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13115162401B	04/25/2013 19:23	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1385148
Reported: 05/06/13 at 01:36 PM

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 13115SLD026	Sample number(s): 7032824-7032827									
Acenaphthene	1.7	U	1.7	0.67	ug/kg	104		69-114		
Acenaphthylene	1.7	U	1.7	0.33	ug/kg	102		71-113		
Anthracene	1.7	U	1.7	0.33	ug/kg	101		75-116		
Benzo(a)anthracene	1.7	U	1.7	0.67	ug/kg	103		76-115		
Benzo(a)pyrene	1.7	U	1.7	0.67	ug/kg	106		76-117		
Benzo(b)fluoranthene	1.7	U	1.7	0.67	ug/kg	118		77-129		
Benzo(e)pyrene	17	U	17.	3.3	ug/kg	97		70-130		
Benzo(g,h,i)perylene	1.7	U	1.7	0.67	ug/kg	104		64-120		
Benzo(k)fluoranthene	1.7	U	1.7	0.67	ug/kg	104		71-120		
Butylbenzylphthalate	18	U	18.	6.0	ug/kg	111		65-131		
Di-n-butylphthalate	18	U	18.	6.0	ug/kg	109		67-140		
Chrysene	1.7	U	1.7	0.33	ug/kg	97		78-111		
Dibenz(a,h)anthracene	1.7	U	1.7	0.67	ug/kg	104		65-124		
Diethylphthalate	18	U	18.	6.0	ug/kg	108		68-125		
Dimethylphthalate	18	U	18.	6.0	ug/kg	103		70-130		
Bis(2-Ethylhexyl)phthalate	18	U	18.	6.0	ug/kg	108		67-143		
Fluoranthene	1.7	U	1.7	0.67	ug/kg	99		68-119		
Fluorene	1.7	U	1.7	0.67	ug/kg	103		75-123		
Indeno(1,2,3-cd)pyrene	1.7	U	1.7	0.67	ug/kg	101		66-122		
1-Methylnaphthalene	1.7	U	1.7	0.67	ug/kg	107		74-113		
2-Methylnaphthalene	1.7	U	1.7	0.67	ug/kg	106		78-121		
Naphthalene	1.7	U	1.7	0.67	ug/kg	102		64-120		
N-Nitrosodimethylamine	1.7	U	1.7	0.67	ug/kg	92		30-125		
Di-n-octylphthalate	18	U	18.	6.0	ug/kg	111		57-133		
Phenanthrene	1.7	U	1.7	0.67	ug/kg	99		72-110		
Pyrene	1.7	U	1.7	0.67	ug/kg	95		71-120		
Batch number: 13108A16D	Sample number(s): 7032825									
11a TPH by EPA 8015B GRO	1.0	U	1.0	0.2	mg/kg	89	82	67-119	8	30
Batch number: 13115B20A	Sample number(s): 7032823									
TPH-GRO S.CA water C5-C12	50	U	50.	20	ug/l	95	97	75-135	2	30
Batch number: 131160002A	Sample number(s): 7032824-7032827									
Aroclor 5432	33	U	33.	10	ug/kg					
Aroclor 5442	33	U	33.	10	ug/kg	81	81	36-106	0	30
Aroclor 5460	33	U	33.	10	ug/kg					
PCB-1016	17	U	17.	3.3	ug/kg	99		80-120		
PCB-1221	17	U	17.	5.1	ug/kg					
PCB-1232	17	U	17.	4.1	ug/kg					
PCB-1242	17	U	17.	3.3	ug/kg					
PCB-1248	17	U	17.	3.3	ug/kg					
PCB-1254	17	U	17.	4.4	ug/kg					

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1385148
Reported: 05/06/13 at 01:36 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
PCB-1260	17	U	17.	3.9	ug/kg	103		72-120		
PCB-1262	17	U	17.	3.3	ug/kg					
PCB-1268	17	U	17.	3.3	ug/kg					
Batch number: 131140009A	Sample number(s): 7032824-7032827									
EFH (C12-C14)	5.0	U	5.0	2.0	mg/kg	90		70-123		
EFH (C15-C20)	5.0	U	5.0	2.0	mg/kg	94		75-128		
EFH (C21-C30)	5.0	U	5.0	2.0	mg/kg	95		64-134		
EFH (C30-C40)	10	U	10.	4.0	mg/kg	55*		65-128		
EFH (C8-C11)	5.0	U	5.0	2.0	mg/kg	74		49-107		
Batch number: 131150638001	Sample number(s): 7032824-7032827									
3a Mercury 7471A	0.0167	U	0.0167	0.0103	mg/kg	111		85-120		
Batch number: 131220637001	Sample number(s): 7032824-7032827									
Aluminum	40.0	U	40.0	7.71	mg/kg	101		80-120		
Antimony	4.00	U	4.00	0.500	mg/kg	104		80-120		
Arsenic	4.00	U	4.00	0.330	mg/kg	104		80-120		
Barium	1.00	U	1.00	0.0330	mg/kg	104		80-120		
Beryllium	1.00	U	1.00	0.0670	mg/kg	103		80-120		
Boron	10.0	U	10.0	0.830	mg/kg	99		80-120		
Cadmium	1.00	U	1.00	0.0330	mg/kg	103		80-120		
Calcium	20.0	U	20.0	4.02	mg/kg	103		80-120		
Chromium	3.00	U	3.00	0.0880	mg/kg	102		80-120		
Cobalt	1.00	U	1.00	0.0900	mg/kg	106		80-120		
Copper	2.00	U	2.00	0.180	mg/kg	109		80-120		
Iron	40.0	U	40.0	3.80	mg/kg	101		80-120		
Lead	3.00	U	3.00	0.470	mg/kg	106		80-120		
Lithium	4.0	U	4.0	0.55	mg/kg	103		80-120		
Magnesium	10.0	U	10.0	1.73	mg/kg	99		80-120		
Manganese	1.00	U	1.00	0.0830	mg/kg	105		80-120		
Molybdenum	2.00	U	2.00	0.170	mg/kg	102		80-120		
Nickel	2.00	U	2.00	0.110	mg/kg	107		80-120		
Phosphorus	1.44	J	10.0	0.510	mg/kg	106		80-120		
Potassium	100 U		100.	13.5	mg/kg	100		80-120		
Sodium	100 U		100.	16.7	mg/kg	100		80-120		
Tin	1.47	J	10.0	0.220	mg/kg	103		80-120		
Titanium	1.00	U	1.00	0.170	mg/kg	103		80-120		
Vanadium	1.00	U	1.00	0.110	mg/kg	102		80-120		
Zinc	4.00	U	4.00	0.200	mg/kg	105		80-120		
Zirconium	5.00	U	5.00	0.830	mg/kg	101		80-120		
Batch number: 131220637001A	Sample number(s): 7032824-7032827									
Silver	0.200	U	0.200	0.0200	mg/kg	109		80-120		
Strontium	0.400	U	0.400	0.0340	mg/kg	110		80-120		
Thallium	0.200	U	0.200	0.0300	mg/kg	105		80-120		
Batch number: 131220637001B	Sample number(s): 7032824-7032827									
Selenium	0.400	U	0.400	0.100	mg/kg	107		80-120		
Batch number: 13114039401A	Sample number(s): 7032824-7032827									
15a pH by 9045C						99		95-105		
Batch number: 13115162401B	Sample number(s): 7032824-7032827									

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1385148
Reported: 05/06/13 at 01:36 PM

Analysis Name	Blank Result	Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
14a Moisture Content by 160.3					100		80-120		

Analysis Name	Blank Result	Blank MRL**	Blank EDL	Report Units	OPR %REC	OPRD %REC	OPR/OPRD Limits	RPD	RPD Max
Batch number: 13120002	Sample number(s): 7032824-7032827								
2378-TCDD	1.00 U	1.00	0.0200	ng/kg	93		67-158		
12378-PeCDD	5.00 U	5.00	0.0209	ng/kg	96		70-142		
123478-HxCDD	5.00 U	5.00	0.0137	ng/kg	102		70-164		
123678-HxCDD	5.00 U	5.00	0.0147	ng/kg	99		76-134		
123789-HxCDD	0.0225 J	5.00	0.0141	ng/kg	99		64-162		
1234678-HpCDD	0.0731 J	5.00	0.0152	ng/kg	98		70-140		
OCDD	0.155 J	10.0	0.0149	ng/kg	98		78-144		
2378-TCDF	1.00 U	1.00	0.0167	ng/kg	96		75-158		
12378-PeCDF	0.0365 J	5.00	0.00978	ng/kg	100		80-134		
23478-PeCDF	0.0100 J	5.00	0.00992	ng/kg	101		68-160		
123478-HxCDF	0.0375 J	5.00	0.0105	ng/kg	103		72-134		
123678-HxCDF	0.0203 J	5.00	0.00971	ng/kg	100		84-130		
123789-HxCDF	0.0140 J	5.00	0.0114	ng/kg	101		78-130		
234678-HxCDF	0.0283 J	5.00	0.0104	ng/kg	100		70-156		
1234678-HpCDF	0.0401 J	5.00	0.00639	ng/kg	98		82-122		
1234789-HpCDF	0.0269 J	5.00	0.0103	ng/kg	100		78-138		
OCDF	0.107 J	10.0	0.0237	ng/kg	99		63-170		
TEQ WHO 2005 - EDLx0.0	0.00349			ng/kg					

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 13115SLD026	Sample number(s): 7032824-7032827 UNSPK: P031213								
Acenaphthene	100	103	48-127	3	30				
Acenaphthylene	95	98	49-121	3	30				
Anthracene	95	99	52-126	4	30				
Benzo(a)anthracene	96	102	32-135	5	30				
Benzo(a)pyrene	100	105	36-138	5	30				
Benzo(b)fluoranthene	107	113	26-142	5	30				
Benzo(e)pyrene	97	102	70-130	5	30				
Benzo(g,h,i)perylene	63	73	33-141	13	30				
Benzo(k)fluoranthene	87	87	47-129	0	30				
Butylbenzylphthalate	130	121	59-153	7	30				
Di-n-butylphthalate	105	109	62-154	4	30				
Chrysene	92	97	29-148	5	30				
Dibenz(a,h)anthracene	83	91	34-125	9	30				
Diethylphthalate	96	101	76-127	5	30				
Dimethylphthalate	93	96	62-136	2	30				

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1385148
Reported: 05/06/13 at 01:36 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Bis(2-Ethylhexyl)phthalate	111	125	39-167	10	30				
Fluoranthene	91	95	47-135	4	30				
Fluorene	98	99	50-129	2	30				
Indeno(1,2,3-cd)pyrene	72	81	17-136	10	30				
1-Methylnaphthalene	104	104	50-131	0	30				
2-Methylnaphthalene	105	106	28-144	0	30				
Naphthalene	102	101	31-148	1	30				
N-Nitrosodimethylamine	131*	135*	48-113	3	30				
Di-n-octylphthalate	138	129	52-162	6	30				
Phenanthrene	97	96	29-142	0	30				
Pyrene	88	93	26-143	5	30				
Batch number: 131160002A	Sample number(s): 7032824-7032827 UNSPK: P031213								
PCB-1016	108	102	16-146	6	50				
PCB-1260	114	102	40-134	11	50				
Batch number: 131140009A	Sample number(s): 7032824-7032827 UNSPK: P031213								
EFH (C12-C14)	99	91	49-123	8	20				
EFH (C15-C20)	124*	137*	49-123	10	20				
EFH (C21-C30)	127*	182*	49-123	18	20				
EFH (C30-C40)	203 (2)	296 (2)	49-123	14	20				
EFH (C8-C11)	106	95	49-123	11	20				
Batch number: 131150638001	Sample number(s): 7032824-7032827 UNSPK: P031213 BKG: P031213								
3a Mercury 7471A	105	104	65-135	2	20	0.0161	0.0142 J	13 (1)	20
Batch number: 131220637001	Sample number(s): 7032824-7032827 UNSPK: P036179 BKG: P036179								
Aluminum	1523 (2)	1646 (2)	75-125	2	20	11,400	10,900	5	20
Antimony	57*	57*	75-125	0	20	4.52	3.96 U	200* (1)	20
Arsenic	102	102	75-125	0	20	4.34	3.98	9 (1)	20
Barium	101	98	75-125	2	20	101	88.6	13	20
Beryllium	106	106	75-125	0	20	0.451 J	0.421 J	7 (1)	20
Boron	101	101	75-125	1	20	15.3	12.8	18 (1)	20
Cadmium	84	84	75-125	0	20	1.16	0.273 J	124* (1)	20
Calcium	275 (2)	-53 (2)	75-125	16	20	7,750	5,970	26*	20
Chromium	110	118	75-125	4	20	15.0	16.5	9	20
Cobalt	95	95	75-125	0	20	7.43	3.86	63* (1)	20
Copper	115	113	75-125	1	20	12.1	11.6	4	20
Iron	1009 (2)	1510 (2)	75-125	3	20	17,500	17,100	2	20
Lead	50*	44*	75-125	3	20	23.2	13.4	54* (1)	20
Lithium	107	106	75-125	1	20	19.7	20.1	2 (1)	20
Magnesium	264 (2)	282 (2)	75-125	1	20	4,380	4,170	5	20
Manganese	37 (2)	41 (2)	75-125	0	20	346	290	18	20
Molybdenum	99	98	75-125	0	20	2.73	0.348 J	155* (1)	20
Nickel	105	106	75-125	0	20	8.69	9.72	11 (1)	20
Phosphorus	-28 (2)	-49 (2)	75-125	3	20	663	462	36*	20
Potassium	129*	135*	75-125	1	20	3,020	2,970	2	20
Sodium	104	102	75-125	1	20	86.7 J	77.4 J	11 (1)	20
Tin	94	94	75-125	0	20	10.6	2.69 J	119* (1)	20
Titanium	315 (2)	362 (2)	75-125	4	20	953	968	2	20

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1385148
Reported: 05/06/13 at 01:36 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Vanadium	111	111	75-125	0	20	28.6	27.7	3	20
Zinc	107	103	75-125	2	20	69.3	62.6	10	20
Zirconium	98	98	75-125	0	20	2.43 J	2.34 J	4 (1)	20
Batch number: 131220637001A	Sample number(s): 7032824-7032827 UNSPK: P036179 BKG: P036179								
Silver	111	113	75-125	2	20	0.0343 J	0.0481 J	33* (1)	20
Strontium	39 (2)	88 (2)	75-125	9	20	36.6	36.0	2	20
Thallium	109	109	75-125	0	20	0.225	0.245	9 (1)	20
Batch number: 131220637001B	Sample number(s): 7032824-7032827 UNSPK: P036179 BKG: P036179								
Selenium	111	108	75-125	2	20	0.185 J	0.220 J	17 (1)	20
Batch number: 13114039401A	Sample number(s): 7032824-7032827 BKG: 7032827								
15a pH by 9045C						6.66	6.63	0	3
Batch number: 13115162401B	Sample number(s): 7032824-7032827 BKG: P031213								
14a Moisture Content by 160.3						3.7	3.6	4	20

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 7a SVOC SIM EPA 8270D
Batch number: 13115SLD026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
7032824	90	102	102
7032825	91	104	102
7032826	91	104	104
7032827	88	92	96
Blank	90	108	103
LCS	94	111	105
MS	93	107	102
MSD	97	109	102
Limits:	54-129	61-134	55-129

Analysis Name: 11a TPH by EPA 8015B GRO
Batch number: 13108A16D

	Trifluorotoluene-F
7032825	83
Blank	85
LCS	86
LCSD	80
Limits:	61-122

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1385148
Reported: 05/06/13 at 01:36 PM

Surrogate Quality Control

Analysis Name: 11b TPH by EPA 8015B GRO
Batch number: 13115B20A

	Trifluorotoluene-F
7032823	87
Blank	88
LCS	113
LCSD	112
Limits:	63-135

Analysis Name: 19a PCBs and PCTs 8082A
Batch number: 131160002A

	Tetrachloro-m-xylene	Decachlorobiphenyl
7032824	123*	106
7032825	121*	112
7032826	129*	110
7032827	117	106
Blank	121*	104
LCS	120	108
LCSD	128*	120
MS	127*	112
MSD	119	106
Limits:	45-120	45-120

Analysis Name: 10a TPH by EPA 8015B (DRO)
Batch number: 131140009A

	Chlorobenzene	Orthoterphenyl
7032824	94	89
7032825	99	96
7032826	88	89
7032827	102	102
Blank	87	77
LCS	91	91
MS	95	96
MSD	88	89
Limits:	37-125	66-123

Analysis Name: 23a Dioxin/Furan by EPA 1613B
Batch number: 13120002

	13C12-2378-TCDD	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF	13C12-234678-HxCDF	13C12-123789-HxCDF
7032824	81	80	89	93	89	89
7032825	74	79	87	90	87	90
7032826	73	77	82	87	82	80
7032827	51	52	57	59	57	57
Blank	79	84	96	101	96	98
OPR	70	72	83	89	83	82
Limits:	25-164	21-178	26-152	26-123	28-136	29-147

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1385148
Reported: 05/06/13 at 01:36 PM

Surrogate Quality Control

	13C12-1234678-HpCDF	13C12-1234789-HpCDF	13C12-OCDF	13C12-12378-PeCDD	13C12-123478-HxCDD	13C12-123678-HxCDD
7032824	100	82	78	81	88	87
7032825	97	84	82	79	84	86
7032826	95	75	73	77	80	83
7032827	65	54	52	52	57	59
Blank	121	87	81	90	94	93
OPR	105	72	68	75	82	83
Limits:	28-143	26-138	17-157	25-181	32-141	28-130

	13C12-123789-HxCDD	13C12-1234678-HpCDD	13C12-OCDD	13C12-2378-TCDF	13C12-12378-PeCDF
7032824	86	86	85	76	82
7032825	85	84	85	71	79
7032826	80	80	79	71	80
7032827	56	55	55	48	54
Blank	92	95	93	78	88
OPR	83	81	79	66	75
Limits:	28-130	23-140	17-157	24-169	24-185

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

acct#13013 Gp#1385148 sample#7032823-27

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 4/23/2013
CarrierName: FedEx
AirbillNo: 7995 9629 9381

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20130423-01
Cooler #: 1
Lab: Lancaster
Lab Phone: 717-556-7259
Lab Address: 2425 New Holland Pike, Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Other Analysis/Notes
TB-042313	4/23/13 08:00	WQ	HCl	3 - 40 mL Vial	10 day																				X												
SL-526-SA7-SB-0.0-0.5	4/23/13 09:25	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-526-SA7-SB-0.0-0.5	4/23/13 09:25	SO	None	1 - 4 oz glass	10 day													X																			
SL-526-SA7-SB-3.5-4.5	4/23/13 10:55	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-526-SA7-SB-3.5-4.5	4/23/13 10:55	SO	None	1 - 4 oz glass	10 day													X																			
SL-526-SA7-SB-3.5-4.5	4/23/13 10:55	SO	None	1 - Encore	10 day																				X												
SL-512-SA7-SB-0.0-0.5	4/23/13 11:35	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-512-SA7-SB-0.0-0.5	4/23/13 11:35	SO	None	1 - 4 oz glass	10 day													X																			
SL-525-SA7-SB-0.0-0.5	4/23/13 14:20	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-525-SA7-SB-0.0-0.5	4/23/13 14:20	SO	None	1 - 4 oz glass	10 day													X																			

Special Instructions:

Sampler: Steven Mercer

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
V. Gates	4/23/13										
									Pat Gh	4/24/13	0930

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G# 1385148

Environmental Sample Administration Receipt Documentation Log

Client/Project: CDM Smith

Date of Receipt: 4/24/13

Time of Receipt: 0930

Source Code: SO

Shipping Container Sealed YES NO

Custody Seal Present * : YES NO

* Custody seal was intact unless otherwise noted in the discrepancy section

Package: Chilled Not Chilled

Temperature of Shipping Containers							
Cooler #	Thermometer ID	Temperature (°C)	Temp Bottle (TB) or Surface Temp (ST)	Wet Ice (WI) or Dry Ice (DI) or Ice Packs (IP)	Ice Present? Y/N	Loose (L) Bagged Ice (B) or NA	Comments
1	DT121	1.9	TB	WI	y	B	
2							
3							
4							
5							
6							

Number of Trip Blanks received NOT listed on chain of custody: Ø

Paperwork Discrepancy/Unpacking Problems:

Unpacker Signature/Emp#: Pat Gh 3472 **Date/Time:** 4/24/13 1050

Issued by Dept. 6042 Management

2174.06

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	**BMQL**	Below Minimum Quantitation Level
N.D.	none detected	**MPN**	Most Probable Number
TNTC	Too Numerous To Count	**CP Units**	cobalt-chloroplatinate units
IU	International Units	**NTU**	nephelometric turbidity units
umhos/cm	micromhos/cm	**ng**	nanogram(s)
C	degrees Celsius	**F**	degrees Fahrenheit
meq	milliequivalents	**lb.**	pound(s)
g	gram(s)	**kg**	kilogram(s)
µg	microgram(s)	**mg**	milligram(s)
mL	milliliter(s)	**L**	liter(s)
m3	cubic meter(s)	**µL**	microliter(s)
		pg/L	picogram/liter

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

J estimated value – The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	**B**	Value is <CRDL, but ≥IDL
B	Analyte was also detected in the blank	**E**	Estimated due to interference
C	Pesticide result confirmed by GC/MS	**M**	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	**N**	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	**S**	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	**U**	Compound was not detected
P	Concentration difference between primary and confirmation columns >25%	**W**	Post digestion spike out of control limits
U	Compound was not detected	*****	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	**+**	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as “analyze immediately” are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL LANCASTER LABORATORIES BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF LANCASTER LABORATORIES AND (B) WHETHER LANCASTER LABORATORIES HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Lancaster Laboratories which includes any conditions that vary from the Standard Terms and Conditions, and Lancaster hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

May 09, 2013

Project: Phase 3 Subarea 7

Submittal Date: 04/25/2013
Group Number: 1385520
SDG: PH038
PO Number: 1204-002-001-AL
State of Sample Origin: CA

Client Sample Description	Lancaster Labs (LLI) #
TB-042413 Water	7034498
SL-525-SA7-SB-6.5-7.5 Soil	7034499
SL-529-SA7-SB-0.0-0.5 Soil	7034500
SL-528-SA7-SB-0.0-0.5 Soil	7034501
SL-527-SA7-SB-0.0-0.5 Soil	7034502
SL-527-SA7-SB-2.5-3.5 Soil	7034503
EB-042413 Water	7034504

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO	LLI	Attn: Nicole Maljovec
ELECTRONIC COPY TO	Eurofins Lancaster Labs	Attn: Natalie Luciano

Respectfully Submitted,

Nicole L. Maljovec
Principal Specialist Group Leader

(717) 556-7259

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Analysis Report

Sample Description: TB-042413 Water
SSFL Phase 3 Subarea 7

LLI Sample # WW 7034498
LLI Group # 1385520
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/24/2013 08:00

Submitted: 04/25/2013 09:30
Reported: 05/09/2013 09:39

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SLT24 SDG#: PH038-01TB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC Volatiles	**TPH GRO SW-8015B**		ug/l		ug/l	ug/l	
08229	TPH-GRO S.CA water C5-C12	n.a.	50	U	50	20	1

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08229	11b TPH by EPA 8015B GRO	TPH GRO SW-8015B	1	13115B20A	04/26/2013 12:18	Catherine J Schwarz	1
01146	GC VOA Water Prep	SW-846 5030B	1	13115B20A	04/26/2013 12:18	Catherine J Schwarz	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-525-SA7-SB-6.5-7.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7034499
LLI Group # 1385520
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/24/2013 09:10 by SM

Submitted: 04/25/2013 09:30
Reported: 05/09/2013 09:39

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

S5256 SDG#: PH038-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.8	U	1.8	0.70	1
12969	Acenaphthylene	208-96-8	1.8	U	1.8	0.35	1
12969	Anthracene	120-12-7	1.8	U	1.8	0.35	1
12969	Benzo(a)anthracene	56-55-3	1.8	U	1.8	0.70	1
12969	Benzo(a)pyrene	50-32-8	1.8	U	1.8	0.70	1
12969	Benzo(b)fluoranthene	205-99-2	1.0	J	1.8	0.70	1
12969	Benzo(e)pyrene	192-97-2	18	U	18	3.5	1
12969	Benzo(g,h,i)perylene	191-24-2	1.8	U	1.8	0.70	1
12969	Benzo(k)fluoranthene	207-08-9	3.9		1.8	0.70	1
12969	Butylbenzylphthalate	85-68-7	7.9	J	19	6.3	1
12969	Di-n-butylphthalate	84-74-2	19	U	19	6.3	1
12969	Chrysene	218-01-9	0.72	J	1.8	0.35	1
12969	Dibenz(a,h)anthracene	53-70-3	1.8	U	1.8	0.70	1
12969	Diethylphthalate	84-66-2	19	U	19	6.3	1
12969	Dimethylphthalate	131-11-3	19	U	19	6.3	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	19	U	19	6.3	1
12969	Fluoranthene	206-44-0	0.79	J	1.8	0.70	1
12969	Fluorene	86-73-7	0.98	J	1.8	0.70	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.8	U	1.8	0.70	1
12969	1-Methylnaphthalene	90-12-0	0.73	J	1.8	0.70	1
12969	2-Methylnaphthalene	91-57-6	0.99	J	1.8	0.70	1
12969	Naphthalene	91-20-3	1.8	U	1.8	0.70	1
12969	N-Nitrosodimethylamine	62-75-9	1.8	U	1.8	0.70	1
12969	Di-n-octylphthalate	117-84-0	19	U	19	6.3	1
12969	Phenanthrene	85-01-8	1.8	U	1.8	0.70	1
12969	Pyrene	129-00-0	1.8	U	1.8	0.70	1
GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	1.2	U	1.2	0.2	27.72
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
10592	Aroclor 5432	63496-31-1	34	U	34	10	1
10592	Aroclor 5442	12642-23-8	34	U	34	10	1
10592	Aroclor 5460	11126-42-4	34	U	34	10	1
10592	PCB-1016	12674-11-2	18	U	18	3.4	1
10592	PCB-1221	11104-28-2	18	U	18	5.3	1
10592	PCB-1232	11141-16-5	18	U	18	4.3	1
10592	PCB-1242	53469-21-9	18	U	18	3.4	1
10592	PCB-1248	12672-29-6	18	U	18	3.4	1
10592	PCB-1254	11097-69-1	14	J	18	4.6	1
10592	PCB-1260	11096-82-5	18	U	18	4.1	1
10592	PCB-1262	37324-23-5	18	U	18	3.4	1
10592	PCB-1268	11100-14-4	18	U	18	3.4	1
	Project defined QC acceptance limits are not met. All QC is compliant with the laboratory statistically generated limits.						
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.3	U	5.3	2.1	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-525-SA7-SB-6.5-7.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7034499
LLI Group # 1385520
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/24/2013 09:10 by SM

Submitted: 04/25/2013 09:30
Reported: 05/09/2013 09:39

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

S5256 SDG#: PH038-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C15-C20)	n.a.	4.4	J	5.3	2.1	1
12952	EFH (C21-C30)	n.a.	59		5.3	2.1	1
12952	EFH (C30-C40)	n.a.	81		11	4.2	1
12952	EFH (C8-C11)	n.a.	5.3	U	5.3	2.1	1
	The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.						
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	14,600		41.2	7.95	1
06944	Antimony	7440-36-0	0.754	J	4.12	0.515	1
06935	Arsenic	7440-38-2	5.02		4.12	0.340	1
06946	Barium	7440-39-3	56.5		1.03	0.0340	1
06947	Beryllium	7440-41-7	0.603	J	1.03	0.0691	1
07914	Boron	7440-42-8	10.3	J	10.3	0.856	1
06949	Cadmium	7440-43-9	0.142	J	1.03	0.0340	1
01650	Calcium	7440-70-2	3,680		20.6	4.14	1
06951	Chromium	7440-47-3	19.0		3.09	0.0907	1
06952	Cobalt	7440-48-4	4.23		1.03	0.0928	1
06953	Copper	7440-50-8	11.1		2.06	0.186	1
01654	Iron	7439-89-6	18,000		41.2	3.92	1
06955	Lead	7439-92-1	7.48		3.09	0.485	1
01656	Lithium	7439-93-2	22.3		4.1	0.57	1
01657	Magnesium	7439-95-4	3,960		10.3	1.78	1
06958	Manganese	7439-96-5	256		1.03	0.0856	1
06960	Molybdenum	7439-98-7	0.641	J	2.06	0.175	1
06961	Nickel	7440-02-0	8.84		2.06	0.113	1
10145	Phosphorus	7723-14-0	255		10.3	0.526	1
01662	Potassium	7440-09-7	2,490		103	13.9	1
01667	Sodium	7440-23-5	84.5	J	103	17.2	1
06969	Tin	7440-31-5	2.76	J	10.3	0.227	1
06970	Titanium	7440-32-6	1,060		1.03	0.175	1
06971	Vanadium	7440-62-2	30.1		1.03	0.113	1
06972	Zinc	7440-66-6	47.8		4.12	0.206	1
10146	Zirconium	7440-67-7	2.41	J	5.15	0.856	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.412	U	0.412	0.103	2
06142	Silver	7440-22-4	0.0459	J	0.206	0.0206	2
06144	Strontium	7440-24-6	21.8		0.412	0.0351	2
06145	Thallium	7440-28-0	0.253		0.206	0.0309	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0155	J	0.0172	0.0103	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045C	n.a.	7.06		0.0100	0.0100	1
	The pH was measured in water at 20.5 C.						

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-525-SA7-SB-6.5-7.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7034499
LLI Group # 1385520
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/24/2013 09:10 by SM

Submitted: 04/25/2013 09:30
Reported: 05/09/2013 09:39

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

S5256 SDG#: PH038-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Wet Chemistry	**EPA 160.3 modified**		%	%	%	
11624	14a Moisture Content by 160.3	n.a.	4.9	0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.					

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-525-SA7-SB-6.5-7.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7034499
LLI Group # 1385520
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/24/2013 09:10 by SM

Submitted: 04/25/2013 09:30
Reported: 05/09/2013 09:39

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

S5256 SDG#: PH038-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	1.05	U	1.05	0.0208	1
11031	12378-PeCDD	40321-76-4	0.0676	JQ	5.25	0.0269	1
11031	123478-HxCDD	39227-28-6	0.138	J	5.25	0.0277	1
11031	123678-HxCDD	57653-85-7	0.432	J	5.25	0.0276	1
11031	123789-HxCDD	19408-74-3	0.248	JB	5.25	0.0271	1
11031	1234678-HpCDD	35822-46-9	7.37	B	5.25	0.0204	1
11031	OCDD	3268-87-9	72.5	B	10.5	0.0234	1
11031	2378-TCDF	51207-31-9	0.0980	J	1.05	0.0371	1
11031	12378-PeCDF	57117-41-6	1.81	JB	5.25	0.0204	1
11031	23478-PeCDF	57117-31-4	0.368	JB	5.25	0.0201	1
11031	123478-HxCDF	70648-26-9	0.179	JBQ	5.25	0.0240	1
11031	123678-HxCDF	57117-44-9	0.237	JB	5.25	0.0234	1
11031	123789-HxCDF	72918-21-9	0.0412	JBQ	5.25	0.0250	1
11031	234678-HxCDF	60851-34-5	0.232	JB	5.25	0.0231	1
11031	1234678-HpCDF	67562-39-4	2.28	JB	5.25	0.0174	1
11031	1234789-HpCDF	55673-89-7	0.166	JB	5.25	0.0234	1
11031	OCDF	39001-02-0	3.30	JB	10.5	0.0180	1
Toxic Equivalents	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.424				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	74	25 - 164
13C12-12378-PeCDD	77	25 - 181
13C12-123478-HxCDD	79	32 - 141
13C12-123678-HxCDD	82	28 - 130
13C12-123789-HxCDD	79	28 - 130
13C12-1234678-HpCDD	75	23 - 140
13C12-OCDD	76	17 - 157
13C12-2378-TCDF	70	24 - 169
13C12-12378-PeCDF	77	24 - 185
13C12-23478-PeCDF	76	21 - 178
13C12-123478-HxCDF	83	26 - 152
13C12-123678-HxCDF	84	26 - 123
13C12-234678-HxCDF	81	28 - 136
13C12-123789-HxCDF	82	29 - 147
13C12-1234678-HpCDF	88	28 - 143
13C12-1234789-HpCDF	75	26 - 138
13C12-OCDF	74	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-525-SA7-SB-6.5-7.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7034499
LLI Group # 1385520
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/24/2013 09:10 by SM

Submitted: 04/25/2013 09:30
Reported: 05/09/2013 09:39

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

S5256 SDG#: PH038-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-525-SA7-SB-6.5-7.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7034499
LLI Group # 1385520
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/24/2013 09:10 by SM

Submitted: 04/25/2013 09:30
Reported: 05/09/2013 09:39

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

S5256 SDG#: PH038-02

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13119SLC026	05/01/2013	12:02	Joseph M Gambler	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	13119SLC026	04/29/2013	14:00	David S Schrum	1
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	13108A16D	04/26/2013	19:35	Laura M Krieger	27.72
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201311530874	04/25/2013	15:58	Mitchell R Washel	n.a.
10592	19a PCBs and PCTs 8082A	SW-846 8082A	1	131160002A	04/27/2013	10:24	Monica M Souders	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	131160002A	04/26/2013	22:15	Karen L Beyer	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	131200001A	05/02/2013	09:22	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	131200001A	04/30/2013	18:10	Sally L Appleyard	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13120002	05/02/2013	10:17	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13120002	04/30/2013	11:15	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010C	1	131220637001	05/03/2013	12:56	Joanne M Gates	1
06944	Antimony	SW-846 6010C	1	131220637001	05/03/2013	12:56	Joanne M Gates	1
06935	Arsenic	SW-846 6010C	1	131220637001	05/03/2013	12:56	Joanne M Gates	1
06946	Barium	SW-846 6010C	1	131220637001	05/03/2013	12:56	Joanne M Gates	1
06947	Beryllium	SW-846 6010C	1	131220637001	05/03/2013	12:56	Joanne M Gates	1
07914	Boron	SW-846 6010C	1	131220637001	05/03/2013	12:56	Joanne M Gates	1
06949	Cadmium	SW-846 6010C	1	131220637001	05/03/2013	12:56	Joanne M Gates	1
01650	Calcium	SW-846 6010C	1	131220637001	05/03/2013	12:56	Joanne M Gates	1
06951	Chromium	SW-846 6010C	1	131220637001	05/03/2013	12:56	Joanne M Gates	1
06952	Cobalt	SW-846 6010C	1	131220637001	05/03/2013	12:56	Joanne M Gates	1
06953	Copper	SW-846 6010C	1	131220637001	05/03/2013	12:56	Joanne M Gates	1
01654	Iron	SW-846 6010C	1	131220637001	05/03/2013	12:56	Joanne M Gates	1
06955	Lead	SW-846 6010C	1	131220637001	05/03/2013	12:56	Joanne M Gates	1
01656	Lithium	SW-846 6010C	1	131220637001	05/03/2013	12:56	Joanne M Gates	1
01657	Magnesium	SW-846 6010C	1	131220637001	05/03/2013	12:56	Joanne M Gates	1
06958	Manganese	SW-846 6010C	1	131220637001	05/03/2013	12:56	Joanne M Gates	1
06960	Molybdenum	SW-846 6010C	1	131220637001	05/03/2013	12:56	Joanne M Gates	1
06961	Nickel	SW-846 6010C	1	131220637001	05/03/2013	12:56	Joanne M Gates	1
10145	Phosphorus	SW-846 6010C	1	131220637001	05/03/2013	12:56	Joanne M Gates	1
01662	Potassium	SW-846 6010C	1	131220637001	05/03/2013	12:56	Joanne M Gates	1
01667	Sodium	SW-846 6010C	1	131220637001	05/03/2013	12:56	Joanne M Gates	1
06969	Tin	SW-846 6010C	1	131220637001	05/03/2013	12:56	Joanne M Gates	1
06970	Titanium	SW-846 6010C	1	131220637001	05/03/2013	12:56	Joanne M Gates	1
06971	Vanadium	SW-846 6010C	1	131220637001	05/03/2013	12:56	Joanne M Gates	1
06972	Zinc	SW-846 6010C	1	131220637001	05/03/2013	12:56	Joanne M Gates	1
10146	Zirconium	SW-846 6010C	1	131220637001	05/03/2013	12:56	Joanne M Gates	1
06141	Selenium	SW-846 6020A	1	131220637001B	05/06/2013	11:19	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-525-SA7-SB-6.5-7.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7034499
LLI Group # 1385520
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/24/2013 09:10 by SM

Submitted: 04/25/2013 09:30
Reported: 05/09/2013 09:39

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

S5256 SDG#: PH038-02

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06142	Silver	SW-846 6020A	1	131220637001A	05/06/2013 11:19	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	131220637001A	05/06/2013 11:19	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	131220637001A	05/06/2013 11:19	Choon Y Tian	2
00159	3a Mercury 7471A	SW-846 7471B	1	131220638001	05/03/2013 09:33	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	131220637001	05/02/2013 23:16	Annamaria Stipkovits	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	131220638001	05/03/2013 02:45	Annamaria Stipkovits	1
00394	15a pH by 9045C	SW-846 9045D modified	1	13116039401A	04/26/2013 00:03	Clayton C Litchmore	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13121162401A	05/01/2013 22:00	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-529-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7034500
LLI Group # 1385520
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/24/2013 10:00 by SM

Submitted: 04/25/2013 09:30
Reported: 05/09/2013 09:39

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL529 SDG#: PH038-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.70	1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.35	1
12969	Anthracene	120-12-7	1.7	U	1.7	0.35	1
12969	Benzo(a)anthracene	56-55-3	1.7	U	1.7	0.70	1
12969	Benzo(a)pyrene	50-32-8	1.7	U	1.7	0.70	1
12969	Benzo(b)fluoranthene	205-99-2	1.2	J	1.7	0.70	1
12969	Benzo(e)pyrene	192-97-2	18	U	18	3.5	1
12969	Benzo(g,h,i)perylene	191-24-2	1.7	U	1.7	0.70	1
12969	Benzo(k)fluoranthene	207-08-9	7.2		1.7	0.70	1
12969	Butylbenzylphthalate	85-68-7	9.0	J	19	6.3	1
12969	Di-n-butylphthalate	84-74-2	19	U	19	6.3	1
12969	Chrysene	218-01-9	1.0	J	1.7	0.35	1
12969	Dibenz(a,h)anthracene	53-70-3	1.7	U	1.7	0.70	1
12969	Diethylphthalate	84-66-2	19	U	19	6.3	1
12969	Dimethylphthalate	131-11-3	19	U	19	6.3	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	6.7	J	19	6.3	1
12969	Fluoranthene	206-44-0	1.2	J	1.7	0.70	1
12969	Fluorene	86-73-7	1.1	J	1.7	0.70	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.7	U	1.7	0.70	1
12969	1-Methylnaphthalene	90-12-0	0.96	J	1.7	0.70	1
12969	2-Methylnaphthalene	91-57-6	1.4	J	1.7	0.70	1
12969	Naphthalene	91-20-3	1.0	J	1.7	0.70	1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.70	1
12969	Di-n-octylphthalate	117-84-0	19	U	19	6.3	1
12969	Phenanthrene	85-01-8	1.7	U	1.7	0.70	1
12969	Pyrene	129-00-0	0.96	J	1.7	0.70	1
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
10592	Aroclor 5432	63496-31-1	35	U	35	10	1
10592	Aroclor 5442	12642-23-8	35	U	35	10	1
10592	Aroclor 5460	11126-42-4	35	U	35	10	1
10592	PCB-1016	12674-11-2	18	U	18	3.5	1
10592	PCB-1221	11104-28-2	18	U	18	5.3	1
10592	PCB-1232	11141-16-5	18	U	18	4.3	1
10592	PCB-1242	53469-21-9	18	U	18	3.5	1
10592	PCB-1248	12672-29-6	18	U	18	3.5	1
10592	PCB-1254	11097-69-1	18	U	18	4.6	1
10592	PCB-1260	11096-82-5	18	U	18	4.1	1
10592	PCB-1262	37324-23-5	18	U	18	3.5	1
10592	PCB-1268	11100-14-4	18	U	18	3.5	1
	Project defined QC acceptance limits are not met. All QC is compliant with the laboratory statistically generated limits.						
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.2	U	5.2	2.1	1
12952	EFH (C15-C20)	n.a.	5.2	U	5.2	2.1	1
12952	EFH (C21-C30)	n.a.	5.0	J	5.2	2.1	1
12952	EFH (C30-C40)	n.a.	11		10	4.2	1
12952	EFH (C8-C11)	n.a.	5.2	U	5.2	2.1	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-529-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7034500
LLI Group # 1385520
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/24/2013 10:00 by SM

Submitted: 04/25/2013 09:30
Reported: 05/09/2013 09:39

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL529 SDG#: PH038-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
	The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.						
Metals		**SW-846 6010C**	**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	9,390		40.7	7.85	1
06944	Antimony	7440-36-0	0.598	J	4.07	0.509	1
06935	Arsenic	7440-38-2	4.64		4.07	0.336	1
06946	Barium	7440-39-3	59.0		1.02	0.0336	1
06947	Beryllium	7440-41-7	0.536	J	1.02	0.0682	1
07914	Boron	7440-42-8	3.76	J	10.2	0.845	1
06949	Cadmium	7440-43-9	0.151	J	1.02	0.0336	1
01650	Calcium	7440-70-2	2,830		20.4	4.09	1
06951	Chromium	7440-47-3	18.2		3.05	0.0896	1
06952	Cobalt	7440-48-4	4.26		1.02	0.0916	1
06953	Copper	7440-50-8	8.58		2.04	0.183	1
01654	Iron	7439-89-6	21,800		40.7	3.87	1
06955	Lead	7439-92-1	8.52		3.05	0.478	1
01656	Lithium	7439-93-2	20.1		4.1	0.56	1
01657	Magnesium	7439-95-4	5,430		10.2	1.76	1
06958	Manganese	7439-96-5	211		1.02	0.0845	1
06960	Molybdenum	7439-98-7	2.04	U	2.04	0.173	1
06961	Nickel	7440-02-0	9.25		2.04	0.112	1
10145	Phosphorus	7723-14-0	338		10.2	0.519	1
01662	Potassium	7440-09-7	1,850		102	13.7	1
01667	Sodium	7440-23-5	45.9	J	102	17.0	1
06969	Tin	7440-31-5	2.84	J	10.2	0.224	1
06970	Titanium	7440-32-6	971		1.02	0.173	1
06971	Vanadium	7440-62-2	33.3		1.02	0.112	1
06972	Zinc	7440-66-6	55.5		4.07	0.204	1
10146	Zirconium	7440-67-7	1.55	J	5.09	0.845	1
		SW-846 6020A	**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.358	J	0.407	0.102	2
06142	Silver	7440-22-4	0.0393	J	0.204	0.0204	2
06144	Strontium	7440-24-6	17.9		0.407	0.0346	2
06145	Thallium	7440-28-0	0.398		0.204	0.0305	2
		SW-846 7471B	**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0141	J	0.0167	0.010	1
Wet Chemistry		**SW-846 9045D modified**	**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045C	n.a.	6.06		0.0100	0.0100	1
	The pH was measured in water at 20.6 C.						
Wet Chemistry		**EPA 160.3 modified**	**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	4.6		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-529-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7034500
LLI Group # 1385520
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/24/2013 10:00 by SM

Submitted: 04/25/2013 09:30
Reported: 05/09/2013 09:39

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL529 SDG#: PH038-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	1.01	U	1.01	0.0177	1
11031	12378-PeCDD	40321-76-4	0.117	J	5.04	0.0213	1
11031	123478-HxCDD	39227-28-6	0.182	JQ	5.04	0.0248	1
11031	123678-HxCDD	57653-85-7	1.05	J	5.04	0.0263	1
11031	123789-HxCDD	19408-74-3	1.43	JB	5.04	0.0256	1
11031	1234678-HpCDD	35822-46-9	4.89	JB	5.04	0.0180	1
11031	OCDD	3268-87-9	32.6	B	10.1	0.0149	1
11031	2378-TCDF	51207-31-9	0.0747	JQ	1.01	0.0255	1
11031	12378-PeCDF	57117-41-6	0.103	JB	5.04	0.0120	1
11031	23478-PeCDF	57117-31-4	0.141	JB	5.04	0.0112	1
11031	123478-HxCDF	70648-26-9	0.0820	JB	5.04	0.0176	1
11031	123678-HxCDF	57117-44-9	0.544	JB	5.04	0.0163	1
11031	123789-HxCDF	72918-21-9	0.0871	JB	5.04	0.0187	1
11031	234678-HxCDF	60851-34-5	0.0783	JB	5.04	0.0167	1
11031	1234678-HpCDF	67562-39-4	0.599	JB	5.04	0.0175	1
11031	1234789-HpCDF	55673-89-7	0.0441	JBQ	5.04	0.0222	1
11031	OCDF	39001-02-0	1.07	JB	10.1	0.0157	1
Toxic Equivalents	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.555				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	75	25 - 164
13C12-12378-PeCDD	79	25 - 181
13C12-123478-HxCDD	82	32 - 141
13C12-123678-HxCDD	81	28 - 130
13C12-123789-HxCDD	80	28 - 130
13C12-1234678-HpCDD	78	23 - 140
13C12-OCDD	79	17 - 157
13C12-2378-TCDF	71	24 - 169
13C12-12378-PeCDF	80	24 - 185
13C12-23478-PeCDF	78	21 - 178
13C12-123478-HxCDF	84	26 - 152
13C12-123678-HxCDF	87	26 - 123
13C12-234678-HxCDF	85	28 - 136
13C12-123789-HxCDF	85	29 - 147
13C12-1234678-HpCDF	90	28 - 143
13C12-1234789-HpCDF	78	26 - 138
13C12-OCDF	78	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration

*=This limit was used in the evaluation of the final result

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Analysis Report

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Sample Description: SL-529-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7034500
LLI Group # 1385520
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/24/2013 10:00 by SM

Submitted: 04/25/2013 09:30
Reported: 05/09/2013 09:39

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL529 SDG#: PH038-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-529-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7034500
LLI Group # 1385520
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/24/2013 10:00 by SM

Submitted: 04/25/2013 09:30
Reported: 05/09/2013 09:39

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL529 SDG#: PH038-03

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13119SLC026	05/01/2013	12:33	Joseph M Gambler	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	13119SLC026	04/29/2013	14:00	David S Schrum	1
10592	19a PCBs and PCTs 8082A	SW-846 8082A	1	131160002A	04/27/2013	10:42	Monica M Souders	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	131160002A	04/26/2013	22:15	Karen L Beyer	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	131200001A	05/02/2013	04:12	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	131200001A	04/30/2013	18:10	Sally L Appleyard	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13120002	05/02/2013	11:14	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13120002	04/30/2013	11:15	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010C	1	131220637001	05/03/2013	11:59	Joanne M Gates	1
06944	Antimony	SW-846 6010C	2	131220637001	05/05/2013	10:48	Katlin N Cataldi	1
06935	Arsenic	SW-846 6010C	2	131220637001	05/05/2013	10:48	Katlin N Cataldi	1
06946	Barium	SW-846 6010C	2	131220637001	05/05/2013	10:48	Katlin N Cataldi	1
06947	Beryllium	SW-846 6010C	2	131220637001	05/05/2013	10:48	Katlin N Cataldi	1
07914	Boron	SW-846 6010C	2	131220637001	05/05/2013	10:48	Katlin N Cataldi	1
06949	Cadmium	SW-846 6010C	2	131220637001	05/05/2013	10:48	Katlin N Cataldi	1
01650	Calcium	SW-846 6010C	2	131220637001	05/05/2013	10:48	Katlin N Cataldi	1
06951	Chromium	SW-846 6010C	1	131220637001	05/03/2013	11:59	Joanne M Gates	1
06952	Cobalt	SW-846 6010C	2	131220637001	05/05/2013	10:48	Katlin N Cataldi	1
06953	Copper	SW-846 6010C	2	131220637001	05/05/2013	10:48	Katlin N Cataldi	1
01654	Iron	SW-846 6010C	2	131220637001	05/05/2013	10:48	Katlin N Cataldi	1
06955	Lead	SW-846 6010C	2	131220637001	05/05/2013	10:48	Katlin N Cataldi	1
01656	Lithium	SW-846 6010C	2	131220637001	05/05/2013	10:48	Katlin N Cataldi	1
01657	Magnesium	SW-846 6010C	2	131220637001	05/05/2013	10:48	Katlin N Cataldi	1
06958	Manganese	SW-846 6010C	1	131220637001	05/03/2013	11:59	Joanne M Gates	1
06960	Molybdenum	SW-846 6010C	1	131220637001	05/03/2013	11:59	Joanne M Gates	1
06961	Nickel	SW-846 6010C	2	131220637001	05/05/2013	10:48	Katlin N Cataldi	1
10145	Phosphorus	SW-846 6010C	2	131220637001	05/05/2013	10:48	Katlin N Cataldi	1
01662	Potassium	SW-846 6010C	1	131220637001	05/03/2013	11:59	Joanne M Gates	1
01667	Sodium	SW-846 6010C	1	131220637001	05/03/2013	11:59	Joanne M Gates	1
06969	Tin	SW-846 6010C	1	131220637001	05/03/2013	11:59	Joanne M Gates	1
06970	Titanium	SW-846 6010C	1	131220637001	05/03/2013	11:59	Joanne M Gates	1
06971	Vanadium	SW-846 6010C	2	131220637001	05/05/2013	10:48	Katlin N Cataldi	1
06972	Zinc	SW-846 6010C	2	131220637001	05/05/2013	10:48	Katlin N Cataldi	1
10146	Zirconium	SW-846 6010C	1	131220637001	05/03/2013	11:59	Joanne M Gates	1
06141	Selenium	SW-846 6020A	1	131220637001B	05/06/2013	11:21	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	131220637001A	05/06/2013	11:21	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	131220637001A	05/06/2013	11:21	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	131220637001A	05/06/2013	11:21	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-529-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7034500
LLI Group # 1385520
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/24/2013 10:00 by SM

Submitted: 04/25/2013 09:30
Reported: 05/09/2013 09:39

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL529 SDG#: PH038-03

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00159	3a Mercury 7471A	SW-846 7471B	1	131220638001	05/03/2013 09:35	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	131220637001	05/02/2013 23:16	Annamaria Stipkovits	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	131220638001	05/03/2013 02:45	Annamaria Stipkovits	1
00394	15a pH by 9045C	SW-846 9045D modified	1	13116039401A	04/26/2013 00:03	Clayton C Litchmore	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13121162401A	05/01/2013 22:00	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-528-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7034501
LLI Group # 1385520
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/24/2013 10:55 by SM

Submitted: 04/25/2013 09:30
Reported: 05/09/2013 09:39

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL528 SDG#: PH038-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.68	1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.34	1
12969	Anthracene	120-12-7	1.7	U	1.7	0.34	1
12969	Benzo(a)anthracene	56-55-3	1.7	U	1.7	0.68	1
12969	Benzo(a)pyrene	50-32-8	1.7	U	1.7	0.68	1
12969	Benzo(b)fluoranthene	205-99-2	1.7	U	1.7	0.68	1
12969	Benzo(e)pyrene	192-97-2	17	U	17	3.4	1
12969	Benzo(g,h,i)perylene	191-24-2	1.7	U	1.7	0.68	1
12969	Benzo(k)fluoranthene	207-08-9	1.7	U	1.7	0.68	1
12969	Butylbenzylphthalate	85-68-7	18	U	18	6.2	1
12969	Di-n-butylphthalate	84-74-2	18	U	18	6.2	1
12969	Chrysene	218-01-9	1.7	U	1.7	0.34	1
12969	Dibenz(a,h)anthracene	53-70-3	1.7	U	1.7	0.68	1
12969	Diethylphthalate	84-66-2	18	U	18	6.2	1
12969	Dimethylphthalate	131-11-3	18	U	18	6.2	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	18	U	18	6.2	1
12969	Fluoranthene	206-44-0	1.7	U	1.7	0.68	1
12969	Fluorene	86-73-7	1.7	U	1.7	0.68	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.7	U	1.7	0.68	1
12969	1-Methylnaphthalene	90-12-0	1.1	J	1.7	0.68	1
12969	2-Methylnaphthalene	91-57-6	1.8		1.7	0.68	1
12969	Naphthalene	91-20-3	0.85	J	1.7	0.68	1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.68	1
12969	Di-n-octylphthalate	117-84-0	18	U	18	6.2	1
12969	Phenanthrene	85-01-8	1.7	U	1.7	0.68	1
12969	Pyrene	129-00-0	1.7	U	1.7	0.68	1
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
10592	Aroclor 5432	63496-31-1	34	U	34	10	1
10592	Aroclor 5442	12642-23-8	34	U	34	10	1
10592	Aroclor 5460	11126-42-4	34	U	34	10	1
10592	PCB-1016	12674-11-2	17	U	17	3.4	1
10592	PCB-1221	11104-28-2	17	U	17	5.2	1
10592	PCB-1232	11141-16-5	17	U	17	4.2	1
10592	PCB-1242	53469-21-9	17	U	17	3.4	1
10592	PCB-1248	12672-29-6	17	U	17	3.4	1
10592	PCB-1254	11097-69-1	17	U	17	4.5	1
10592	PCB-1260	11096-82-5	17	U	17	4.0	1
10592	PCB-1262	37324-23-5	17	U	17	3.4	1
10592	PCB-1268	11100-14-4	17	U	17	3.4	1
	Project defined QC acceptance limits are not met. All QC is compliant with the laboratory statistically generated limits.						
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.1	U	5.1	2.1	1
12952	EFH (C15-C20)	n.a.	5.1	U	5.1	2.1	1
12952	EFH (C21-C30)	n.a.	3.0	J	5.1	2.1	1
12952	EFH (C30-C40)	n.a.	8.3	J	10	4.1	1
12952	EFH (C8-C11)	n.a.	5.1	U	5.1	2.1	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-528-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7034501
LLI Group # 1385520
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/24/2013 10:55 by SM

Submitted: 04/25/2013 09:30
Reported: 05/09/2013 09:39

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL528 SDG#: PH038-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
	The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.						
Metals		**SW-846 6010C**	**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	12,700		40.3	7.76	1
06944	Antimony	7440-36-0	0.903	J	4.03	0.503	1
06935	Arsenic	7440-38-2	4.35		4.03	0.332	1
06946	Barium	7440-39-3	72.4		1.01	0.0332	1
06947	Beryllium	7440-41-7	0.560	J	1.01	0.0674	1
07914	Boron	7440-42-8	10.1		10.1	0.835	1
06949	Cadmium	7440-43-9	0.181	J	1.01	0.0332	1
01650	Calcium	7440-70-2	3,850		20.1	4.05	1
06951	Chromium	7440-47-3	23.4		3.02	0.0886	1
06952	Cobalt	7440-48-4	6.60		1.01	0.0906	1
06953	Copper	7440-50-8	15.4		2.01	0.181	1
01654	Iron	7439-89-6	24,700		40.3	3.82	1
06955	Lead	7439-92-1	6.10		3.02	0.473	1
01656	Lithium	7439-93-2	20.4		4.0	0.55	1
01657	Magnesium	7439-95-4	6,430		10.1	1.74	1
06958	Manganese	7439-96-5	330		1.01	0.0835	1
06960	Molybdenum	7439-98-7	1.49	J	2.01	0.171	1
06961	Nickel	7440-02-0	11.7		2.01	0.111	1
10145	Phosphorus	7723-14-0	401		10.1	0.513	1
01662	Potassium	7440-09-7	2,130		101	13.6	1
01667	Sodium	7440-23-5	55.9	J	101	16.8	1
06969	Tin	7440-31-5	2.86	J	10.1	0.221	1
06970	Titanium	7440-32-6	1,310		1.01	0.171	1
06971	Vanadium	7440-62-2	44.6		1.01	0.111	1
06972	Zinc	7440-66-6	57.5		4.03	0.201	1
10146	Zirconium	7440-67-7	2.30	J	5.03	0.835	1
		SW-846 6020A	**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.180	J	0.403	0.101	2
06142	Silver	7440-22-4	0.0256	J	0.201	0.0201	2
06144	Strontium	7440-24-6	18.6		0.403	0.0342	2
06145	Thallium	7440-28-0	0.364		0.201	0.0302	2
		SW-846 7471B	**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0122	J	0.0170	0.0102	1
Wet Chemistry		**SW-846 9045D modified**	**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045C	n.a.	6.63		0.0100	0.0100	1
	The pH was measured in water at 20.6 C.						
Wet Chemistry		**EPA 160.3 modified**	**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	2.6		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-528-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7034501
LLI Group # 1385520
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/24/2013 10:55 by SM

Submitted: 04/25/2013 09:30
Reported: 05/09/2013 09:39

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL528 SDG#: PH038-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.996	U	0.996	0.0177	1
11031	12378-PeCDD	40321-76-4	0.0390	JQ	4.98	0.0158	1
11031	123478-HxCDD	39227-28-6	0.0758	JQ	4.98	0.0170	1
11031	123678-HxCDD	57653-85-7	0.0704	JQ	4.98	0.0176	1
11031	123789-HxCDD	19408-74-3	0.0866	JBQ	4.98	0.0174	1
11031	1234678-HpCDD	35822-46-9	0.988	JB	4.98	0.0139	1
11031	OCDD	3268-87-9	7.79	JB	9.96	0.0134	1
11031	2378-TCDF	51207-31-9	0.0416	JQ	0.996	0.0191	1
11031	12378-PeCDF	57117-41-6	0.0856	JB	4.98	0.00936	1
11031	23478-PeCDF	57117-31-4	0.0636	JBQ	4.98	0.00892	1
11031	123478-HxCDF	70648-26-9	0.0558	JB	4.98	0.0126	1
11031	123678-HxCDF	57117-44-9	0.0417	JBQ	4.98	0.0120	1
11031	123789-HxCDF	72918-21-9	0.0289	JBQ	4.98	0.0137	1
11031	234678-HxCDF	60851-34-5	0.0444	JB	4.98	0.0125	1
11031	1234678-HpCDF	67562-39-4	0.247	JB	4.98	0.00962	1
11031	1234789-HpCDF	55673-89-7	0.0394	JBQ	4.98	0.0131	1
11031	OCDF	39001-02-0	0.507	JB	9.96	0.0170	1
Toxic Equivalents	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.0274				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	73	25 - 164
13C12-12378-PeCDD	79	25 - 181
13C12-123478-HxCDD	82	32 - 141
13C12-123678-HxCDD	82	28 - 130
13C12-123789-HxCDD	80	28 - 130
13C12-1234678-HpCDD	80	23 - 140
13C12-OCDD	82	17 - 157
13C12-2378-TCDF	72	24 - 169
13C12-12378-PeCDF	80	24 - 185
13C12-23478-PeCDF	79	21 - 178
13C12-123478-HxCDF	83	26 - 152
13C12-123678-HxCDF	86	26 - 123
13C12-234678-HxCDF	81	28 - 136
13C12-123789-HxCDF	83	29 - 147
13C12-1234678-HpCDF	96	28 - 143
13C12-1234789-HpCDF	77	26 - 138
13C12-OCDF	75	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration

*=This limit was used in the evaluation of the final result

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Analysis Report

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Sample Description: SL-528-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7034501
LLI Group # 1385520
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/24/2013 10:55 by SM

Submitted: 04/25/2013 09:30
Reported: 05/09/2013 09:39

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL528 SDG#: PH038-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-528-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7034501
LLI Group # 1385520
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/24/2013 10:55 by SM

Submitted: 04/25/2013 09:30
Reported: 05/09/2013 09:39

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL528 SDG#: PH038-04

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13119SLC026	05/01/2013	13:04	Joseph M Gambler	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	13119SLC026	04/29/2013	14:00	David S Schrum	1
10592	19a PCBs and PCTs 8082A	SW-846 8082A	1	131160002A	04/27/2013	11:00	Monica M Souders	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	131160002A	04/26/2013	22:15	Karen L Beyer	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	131200001A	05/02/2013	04:32	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	131200001A	04/30/2013	18:10	Sally L Appleyard	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13120002	05/02/2013	12:11	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13120002	04/30/2013	11:15	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010C	1	131220637001	05/03/2013	12:03	Joanne M Gates	1
06944	Antimony	SW-846 6010C	1	131220637001	05/03/2013	12:03	Joanne M Gates	1
06935	Arsenic	SW-846 6010C	1	131220637001	05/03/2013	12:03	Joanne M Gates	1
06946	Barium	SW-846 6010C	1	131220637001	05/03/2013	12:03	Joanne M Gates	1
06947	Beryllium	SW-846 6010C	1	131220637001	05/03/2013	12:03	Joanne M Gates	1
07914	Boron	SW-846 6010C	1	131220637001	05/03/2013	12:03	Joanne M Gates	1
06949	Cadmium	SW-846 6010C	1	131220637001	05/03/2013	12:03	Joanne M Gates	1
01650	Calcium	SW-846 6010C	1	131220637001	05/03/2013	12:03	Joanne M Gates	1
06951	Chromium	SW-846 6010C	1	131220637001	05/03/2013	12:03	Joanne M Gates	1
06952	Cobalt	SW-846 6010C	1	131220637001	05/03/2013	12:03	Joanne M Gates	1
06953	Copper	SW-846 6010C	1	131220637001	05/03/2013	12:03	Joanne M Gates	1
01654	Iron	SW-846 6010C	1	131220637001	05/03/2013	12:03	Joanne M Gates	1
06955	Lead	SW-846 6010C	1	131220637001	05/03/2013	12:03	Joanne M Gates	1
01656	Lithium	SW-846 6010C	1	131220637001	05/03/2013	12:03	Joanne M Gates	1
01657	Magnesium	SW-846 6010C	1	131220637001	05/03/2013	12:03	Joanne M Gates	1
06958	Manganese	SW-846 6010C	1	131220637001	05/03/2013	12:03	Joanne M Gates	1
06960	Molybdenum	SW-846 6010C	1	131220637001	05/03/2013	12:03	Joanne M Gates	1
06961	Nickel	SW-846 6010C	1	131220637001	05/03/2013	12:03	Joanne M Gates	1
10145	Phosphorus	SW-846 6010C	1	131220637001	05/03/2013	12:03	Joanne M Gates	1
01662	Potassium	SW-846 6010C	1	131220637001	05/03/2013	12:03	Joanne M Gates	1
01667	Sodium	SW-846 6010C	1	131220637001	05/03/2013	12:03	Joanne M Gates	1
06969	Tin	SW-846 6010C	1	131220637001	05/03/2013	12:03	Joanne M Gates	1
06970	Titanium	SW-846 6010C	1	131220637001	05/03/2013	12:03	Joanne M Gates	1
06971	Vanadium	SW-846 6010C	1	131220637001	05/03/2013	12:03	Joanne M Gates	1
06972	Zinc	SW-846 6010C	1	131220637001	05/03/2013	12:03	Joanne M Gates	1
10146	Zirconium	SW-846 6010C	1	131220637001	05/03/2013	12:03	Joanne M Gates	1
06141	Selenium	SW-846 6020A	1	131220637001B	05/06/2013	11:24	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	131220637001A	05/06/2013	11:24	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	131220637001A	05/06/2013	11:24	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	131220637001A	05/06/2013	11:24	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-528-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7034501
LLI Group # 1385520
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/24/2013 10:55 by SM

Submitted: 04/25/2013 09:30
Reported: 05/09/2013 09:39

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL528 SDG#: PH038-04

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00159	3a Mercury 7471A	SW-846 7471B	1	131220638001	05/03/2013 09:37	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	131220637001	05/02/2013 23:16	Annamaria Stipkovits	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	131220638001	05/03/2013 02:45	Annamaria Stipkovits	1
00394	15a pH by 9045C	SW-846 9045D modified	1	13116039401A	04/26/2013 00:03	Clayton C Litchmore	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13121162401A	05/01/2013 22:00	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-527-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7034502
LLI Group # 1385520
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/24/2013 13:15 by SM

Submitted: 04/25/2013 09:30
Reported: 05/09/2013 09:39

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL527 SDG#: PH038-05

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.69	1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.35	1
12969	Anthracene	120-12-7	0.42	J	1.7	0.35	1
12969	Benzo(a)anthracene	56-55-3	1.2	J	1.7	0.69	1
12969	Benzo(a)pyrene	50-32-8	1.6	J	1.7	0.69	1
12969	Benzo(b)fluoranthene	205-99-2	3.8		1.7	0.69	1
12969	Benzo(e)pyrene	192-97-2	18	U	18	3.5	1
12969	Benzo(g,h,i)perylene	191-24-2	1.2	J	1.7	0.69	1
12969	Benzo(k)fluoranthene	207-08-9	13		1.7	0.69	1
12969	Butylbenzylphthalate	85-68-7	19		19	6.2	1
12969	Di-n-butylphthalate	84-74-2	19	U	19	6.2	1
12969	Chrysene	218-01-9	3.2		1.7	0.35	1
12969	Dibenz(a,h)anthracene	53-70-3	0.90	J	1.7	0.69	1
12969	Diethylphthalate	84-66-2	19	U	19	6.2	1
12969	Dimethylphthalate	131-11-3	19	U	19	6.2	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	22		19	6.2	1
12969	Fluoranthene	206-44-0	4.3		1.7	0.69	1
12969	Fluorene	86-73-7	1.7	J	1.7	0.69	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.4	J	1.7	0.69	1
12969	1-Methylnaphthalene	90-12-0	1.1	J	1.7	0.69	1
12969	2-Methylnaphthalene	91-57-6	1.9		1.7	0.69	1
12969	Naphthalene	91-20-3	1.6	J	1.7	0.69	1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.69	1
12969	Di-n-octylphthalate	117-84-0	19	U	19	6.2	1
12969	Phenanthrene	85-01-8	2.3		1.7	0.69	1
12969	Pyrene	129-00-0	2.6		1.7	0.69	1
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
10592	Aroclor 5432	63496-31-1	34	U	34	10	1
10592	Aroclor 5442	12642-23-8	34	U	34	10	1
10592	Aroclor 5460	11126-42-4	34	U	34	10	1
10592	PCB-1016	12674-11-2	17	U	17	3.4	1
10592	PCB-1221	11104-28-2	17	U	17	5.2	1
10592	PCB-1232	11141-16-5	17	U	17	4.2	1
10592	PCB-1242	53469-21-9	17	U	17	3.4	1
10592	PCB-1248	12672-29-6	17	U	17	3.4	1
10592	PCB-1254	11097-69-1	17	U	17	4.5	1
10592	PCB-1260	11096-82-5	17	U	17	4.0	1
10592	PCB-1262	37324-23-5	17	U	17	3.4	1
10592	PCB-1268	11100-14-4	17	U	17	3.4	1
	Project defined QC acceptance limits are not met. All QC is compliant with the laboratory statistically generated limits.						
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.2	U	5.2	2.1	1
12952	EFH (C15-C20)	n.a.	5.2	U	5.2	2.1	1
12952	EFH (C21-C30)	n.a.	5.6		5.2	2.1	1
12952	EFH (C30-C40)	n.a.	7.8	J	10	4.1	1
12952	EFH (C8-C11)	n.a.	5.2	U	5.2	2.1	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-527-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7034502
LLI Group # 1385520
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/24/2013 13:15 by SM

Submitted: 04/25/2013 09:30
Reported: 05/09/2013 09:39

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL527 SDG#: PH038-05

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
	The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.						
Metals		**SW-846 6010C**	**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	14,800		40.3	7.76	1
06944	Antimony	7440-36-0	0.726	J	4.03	0.504	1
06935	Arsenic	7440-38-2	3.93	J	4.03	0.332	1
06946	Barium	7440-39-3	96.9		1.01	0.0332	1
06947	Beryllium	7440-41-7	0.569	J	1.01	0.0675	1
07914	Boron	7440-42-8	11.9		10.1	0.836	1
06949	Cadmium	7440-43-9	0.294	J	1.01	0.0332	1
01650	Calcium	7440-70-2	3,850		20.1	4.05	1
06951	Chromium	7440-47-3	25.1		3.02	0.0886	1
06952	Cobalt	7440-48-4	5.80		1.01	0.0906	1
06953	Copper	7440-50-8	14.9		2.01	0.181	1
01654	Iron	7439-89-6	24,300		40.3	3.83	1
06955	Lead	7439-92-1	13.2		3.02	0.473	1
01656	Lithium	7439-93-2	25.7		4.0	0.55	1
01657	Magnesium	7439-95-4	6,170		10.1	1.74	1
06958	Manganese	7439-96-5	342		1.01	0.0836	1
06960	Molybdenum	7439-98-7	0.370	J	2.01	0.171	1
06961	Nickel	7440-02-0	14.6		2.01	0.111	1
10145	Phosphorus	7723-14-0	437		10.1	0.514	1
01662	Potassium	7440-09-7	3,590		101	13.6	1
01667	Sodium	7440-23-5	66.6	J	101	16.8	1
06969	Tin	7440-31-5	3.03	J	10.1	0.222	1
06970	Titanium	7440-32-6	1,370		1.01	0.171	1
06971	Vanadium	7440-62-2	44.6		1.01	0.111	1
06972	Zinc	7440-66-6	61.6		4.03	0.201	1
10146	Zirconium	7440-67-7	2.54	J	5.04	0.836	1
		SW-846 6020A	**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.182	J	0.403	0.101	2
06142	Silver	7440-22-4	0.0447	J	0.201	0.0201	2
06144	Strontium	7440-24-6	27.8		0.403	0.0342	2
06145	Thallium	7440-28-0	0.360		0.201	0.0302	2
		SW-846 7471B	**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0239		0.0169	0.0101	1
Wet Chemistry		**SW-846 9045D modified**	**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045C	n.a.	6.54		0.0100	0.0100	1
	The pH was measured in water at 20.6 C.						
Wet Chemistry		**EPA 160.3 modified**	**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	3.6		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-527-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7034502
LLI Group # 1385520
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/24/2013 13:15 by SM

Submitted: 04/25/2013 09:30
Reported: 05/09/2013 09:39

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL527 SDG#: PH038-05

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0353	JQ	1.03	0.0264	1
11031	12378-PeCDD	40321-76-4	0.140	J	5.17	0.0328	1
11031	123478-HxCDD	39227-28-6	0.215	J	5.17	0.0381	1
11031	123678-HxCDD	57653-85-7	0.460	J	5.17	0.0382	1
11031	123789-HxCDD	19408-74-3	0.373	JB	5.17	0.0384	1
11031	1234678-HpCDD	35822-46-9	8.96	B	5.17	0.0294	1
11031	OCDD	3268-87-9	89.5	B	10.3	0.0244	1
11031	2378-TCDF	51207-31-9	0.214	JQ	1.03	0.0470	1
11031	12378-PeCDF	57117-41-6	0.254	JB	5.17	0.0245	1
11031	23478-PeCDF	57117-31-4	0.433	JB	5.17	0.0245	1
11031	123478-HxCDF	70648-26-9	0.209	JB	5.17	0.0261	1
11031	123678-HxCDF	57117-44-9	0.197	JB	5.17	0.0251	1
11031	123789-HxCDF	72918-21-9	0.0452	JB	5.17	0.0267	1
11031	234678-HxCDF	60851-34-5	0.206	JB	5.17	0.0247	1
11031	1234678-HpCDF	67562-39-4	1.69	JB	5.17	0.0308	1
11031	1234789-HpCDF	55673-89-7	0.143	JB	5.17	0.0407	1
11031	OCDF	39001-02-0	3.64	JB	10.3	0.0228	1
Toxic Equivalents	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.584				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	68	25 - 164
13C12-12378-PeCDD	70	25 - 181
13C12-123478-HxCDD	77	32 - 141
13C12-123678-HxCDD	77	28 - 130
13C12-123789-HxCDD	76	28 - 130
13C12-1234678-HpCDD	75	23 - 140
13C12-OCDD	74	17 - 157
13C12-2378-TCDF	65	24 - 169
13C12-12378-PeCDF	70	24 - 185
13C12-23478-PeCDF	69	21 - 178
13C12-123478-HxCDF	78	26 - 152
13C12-123678-HxCDF	80	26 - 123
13C12-234678-HxCDF	77	28 - 136
13C12-123789-HxCDF	82	29 - 147
13C12-1234678-HpCDF	85	28 - 143
13C12-1234789-HpCDF	74	26 - 138
13C12-OCDF	73	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration

*=This limit was used in the evaluation of the final result

Sample Description: SL-527-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7034502
LLI Group # 1385520
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/24/2013 13:15 by SM

Submitted: 04/25/2013 09:30
Reported: 05/09/2013 09:39

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL527 SDG#: PH038-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-527-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7034502
LLI Group # 1385520
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/24/2013 13:15 by SM

Submitted: 04/25/2013 09:30
Reported: 05/09/2013 09:39

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL527 SDG#: PH038-05

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13119SLC026	05/01/2013	13:35	Joseph M Gambler	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	13119SLC026	04/29/2013	14:00	David S Schrum	1
10592	19a PCBs and PCTs 8082A	SW-846 8082A	1	131160002A	04/27/2013	11:19	Monica M Souders	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	131160002A	04/26/2013	22:15	Karen L Beyer	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	131200001A	05/02/2013	04:53	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	131200001A	04/30/2013	18:10	Sally L Appleyard	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13120002	05/02/2013	13:07	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13120002	04/30/2013	11:15	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010C	1	131220637001	05/03/2013	12:07	Joanne M Gates	1
06944	Antimony	SW-846 6010C	1	131220637001	05/03/2013	12:07	Joanne M Gates	1
06935	Arsenic	SW-846 6010C	1	131220637001	05/03/2013	12:07	Joanne M Gates	1
06946	Barium	SW-846 6010C	1	131220637001	05/03/2013	12:07	Joanne M Gates	1
06947	Beryllium	SW-846 6010C	1	131220637001	05/03/2013	12:07	Joanne M Gates	1
07914	Boron	SW-846 6010C	1	131220637001	05/03/2013	12:07	Joanne M Gates	1
06949	Cadmium	SW-846 6010C	1	131220637001	05/03/2013	12:07	Joanne M Gates	1
01650	Calcium	SW-846 6010C	1	131220637001	05/03/2013	12:07	Joanne M Gates	1
06951	Chromium	SW-846 6010C	1	131220637001	05/03/2013	12:07	Joanne M Gates	1
06952	Cobalt	SW-846 6010C	1	131220637001	05/03/2013	12:07	Joanne M Gates	1
06953	Copper	SW-846 6010C	1	131220637001	05/03/2013	12:07	Joanne M Gates	1
01654	Iron	SW-846 6010C	1	131220637001	05/03/2013	12:07	Joanne M Gates	1
06955	Lead	SW-846 6010C	1	131220637001	05/03/2013	12:07	Joanne M Gates	1
01656	Lithium	SW-846 6010C	1	131220637001	05/03/2013	12:07	Joanne M Gates	1
01657	Magnesium	SW-846 6010C	1	131220637001	05/03/2013	12:07	Joanne M Gates	1
06958	Manganese	SW-846 6010C	1	131220637001	05/03/2013	12:07	Joanne M Gates	1
06960	Molybdenum	SW-846 6010C	1	131220637001	05/03/2013	12:07	Joanne M Gates	1
06961	Nickel	SW-846 6010C	1	131220637001	05/03/2013	12:07	Joanne M Gates	1
10145	Phosphorus	SW-846 6010C	1	131220637001	05/03/2013	12:07	Joanne M Gates	1
01662	Potassium	SW-846 6010C	1	131220637001	05/03/2013	12:07	Joanne M Gates	1
01667	Sodium	SW-846 6010C	1	131220637001	05/03/2013	12:07	Joanne M Gates	1
06969	Tin	SW-846 6010C	1	131220637001	05/03/2013	12:07	Joanne M Gates	1
06970	Titanium	SW-846 6010C	1	131220637001	05/03/2013	12:07	Joanne M Gates	1
06971	Vanadium	SW-846 6010C	1	131220637001	05/03/2013	12:07	Joanne M Gates	1
06972	Zinc	SW-846 6010C	1	131220637001	05/03/2013	12:07	Joanne M Gates	1
10146	Zirconium	SW-846 6010C	1	131220637001	05/03/2013	12:07	Joanne M Gates	1
06141	Selenium	SW-846 6020A	1	131220637001B	05/06/2013	11:26	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	131220637001A	05/06/2013	11:26	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	131220637001A	05/06/2013	11:26	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	131220637001A	05/06/2013	11:26	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-527-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7034502
LLI Group # 1385520
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/24/2013 13:15 by SM

Submitted: 04/25/2013 09:30
Reported: 05/09/2013 09:39

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL527 SDG#: PH038-05

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00159	3a Mercury 7471A	SW-846 7471B	1	131220638001	05/03/2013 09:39	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	131220637001	05/02/2013 23:16	Annamaria Stipkovits	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	131220638001	05/03/2013 02:45	Annamaria Stipkovits	1
00394	15a pH by 9045C	SW-846 9045D modified	1	13116039401A	04/26/2013 00:03	Clayton C Litchmore	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13121162401A	05/01/2013 22:00	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-527-SA7-SB-2.5-3.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7034503
LLI Group # 1385520
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/24/2013 14:40 by SM

Submitted: 04/25/2013 09:30
Reported: 05/09/2013 09:39

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

S5272 SDG#: PH038-06

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.69	1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.35	1
12969	Anthracene	120-12-7	1.7	U	1.7	0.35	1
12969	Benzo(a)anthracene	56-55-3	1.7	U	1.7	0.69	1
12969	Benzo(a)pyrene	50-32-8	1.7	U	1.7	0.69	1
12969	Benzo(b)fluoranthene	205-99-2	1.7	U	1.7	0.69	1
12969	Benzo(e)pyrene	192-97-2	18	U	18	3.5	1
12969	Benzo(g,h,i)perylene	191-24-2	1.7	U	1.7	0.69	1
12969	Benzo(k)fluoranthene	207-08-9	0.77	J	1.7	0.69	1
12969	Butylbenzylphthalate	85-68-7	19	U	19	6.2	1
12969	Di-n-butylphthalate	84-74-2	19	U	19	6.2	1
12969	Chrysene	218-01-9	1.7	U	1.7	0.35	1
12969	Dibenz(a,h)anthracene	53-70-3	1.7	U	1.7	0.69	1
12969	Diethylphthalate	84-66-2	19	U	19	6.2	1
12969	Dimethylphthalate	131-11-3	19	U	19	6.2	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	19	U	19	6.2	1
12969	Fluoranthene	206-44-0	1.7	U	1.7	0.69	1
12969	Fluorene	86-73-7	1.7	U	1.7	0.69	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.7	U	1.7	0.69	1
12969	1-Methylnaphthalene	90-12-0	1.7	U	1.7	0.69	1
12969	2-Methylnaphthalene	91-57-6	1.7	U	1.7	0.69	1
12969	Naphthalene	91-20-3	1.7	U	1.7	0.69	1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.69	1
12969	Di-n-octylphthalate	117-84-0	19	U	19	6.2	1
12969	Phenanthrene	85-01-8	1.7	U	1.7	0.69	1
12969	Pyrene	129-00-0	1.7	U	1.7	0.69	1
GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	0.3	J	1.1	0.2	27.41
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
10592	Aroclor 5432	63496-31-1	34	U	34	10	1
10592	Aroclor 5442	12642-23-8	34	U	34	10	1
10592	Aroclor 5460	11126-42-4	34	U	34	10	1
10592	PCB-1016	12674-11-2	17	U	17	3.4	1
10592	PCB-1221	11104-28-2	17	U	17	5.2	1
10592	PCB-1232	11141-16-5	17	U	17	4.2	1
10592	PCB-1242	53469-21-9	17	U	17	3.4	1
10592	PCB-1248	12672-29-6	17	U	17	3.4	1
10592	PCB-1254	11097-69-1	17	U	17	4.5	1
10592	PCB-1260	11096-82-5	17	U	17	4.0	1
10592	PCB-1262	37324-23-5	17	U	17	3.4	1
10592	PCB-1268	11100-14-4	17	U	17	3.4	1
	Project defined QC acceptance limits are not met. All QC is compliant with the laboratory statistically generated limits.						
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.2	U	5.2	2.1	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-527-SA7-SB-2.5-3.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7034503
LLI Group # 1385520
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/24/2013 14:40 by SM

Submitted: 04/25/2013 09:30
Reported: 05/09/2013 09:39

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

S5272 SDG#: PH038-06

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C15-C20)	n.a.	5.2	U	5.2	2.1	1
12952	EFH (C21-C30)	n.a.	3.1	J	5.2	2.1	1
12952	EFH (C30-C40)	n.a.	8.8	J	10	4.1	1
12952	EFH (C8-C11)	n.a.	5.2	U	5.2	2.1	1
	The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.						
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	14,000		41.0	7.91	1
06944	Antimony	7440-36-0	0.830	J	4.10	0.513	1
06935	Arsenic	7440-38-2	3.93	J	4.10	0.339	1
06946	Barium	7440-39-3	63.1		1.03	0.0339	1
06947	Beryllium	7440-41-7	0.795	J	1.03	0.0687	1
07914	Boron	7440-42-8	9.37	J	10.3	0.852	1
06949	Cadmium	7440-43-9	0.189	J	1.03	0.0339	1
01650	Calcium	7440-70-2	1,740		20.5	4.12	1
06951	Chromium	7440-47-3	26.8		3.08	0.0903	1
06952	Cobalt	7440-48-4	7.28		1.03	0.0923	1
06953	Copper	7440-50-8	14.0		2.05	0.185	1
01654	Iron	7439-89-6	22,500		41.0	3.90	1
06955	Lead	7439-92-1	4.78		3.08	0.482	1
01656	Lithium	7439-93-2	17.7		4.1	0.56	1
01657	Magnesium	7439-95-4	5,820		10.3	1.77	1
06958	Manganese	7439-96-5	277		1.03	0.0852	1
06960	Molybdenum	7439-98-7	0.238	J	2.05	0.174	1
06961	Nickel	7440-02-0	13.0		2.05	0.113	1
10145	Phosphorus	7723-14-0	349		10.3	0.523	1
01662	Potassium	7440-09-7	2,210		103	13.9	1
01667	Sodium	7440-23-5	97.8	J	103	17.1	1
06969	Tin	7440-31-5	2.90	J	10.3	0.226	1
06970	Titanium	7440-32-6	1,370		1.03	0.174	1
06971	Vanadium	7440-62-2	42.6		1.03	0.113	1
06972	Zinc	7440-66-6	52.2		4.10	0.205	1
10146	Zirconium	7440-67-7	2.63	J	5.13	0.852	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.109	J	0.410	0.103	2
06142	Silver	7440-22-4	0.205	U	0.205	0.0205	2
06144	Strontium	7440-24-6	11.7		0.410	0.0349	2
06145	Thallium	7440-28-0	0.314		0.205	0.0308	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0167	U	0.0167	0.0100	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045C	n.a.	6.40		0.0100	0.0100	1
	The pH was measured in water at 20.7 C.						

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-527-SA7-SB-2.5-3.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7034503
LLI Group # 1385520
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/24/2013 14:40 by SM

Submitted: 04/25/2013 09:30
Reported: 05/09/2013 09:39

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

S5272 SDG#: PH038-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Wet Chemistry	**EPA 160.3 modified**		%	%	%	
11624	14a Moisture Content by 160.3	n.a.	3.5	0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.					

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-527-SA7-SB-2.5-3.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7034503
LLI Group # 1385520
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/24/2013 14:40 by SM

Submitted: 04/25/2013 09:30
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CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

S5272 SDG#: PH038-06

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0364	JQ	1.01	0.0230	1
11031	12378-PeCDD	40321-76-4	0.0809	JQ	5.07	0.0213	1
11031	123478-HxCDD	39227-28-6	0.0312	JQ	5.07	0.0173	1
11031	123678-HxCDD	57653-85-7	0.0901	J	5.07	0.0170	1
11031	123789-HxCDD	19408-74-3	0.0781	JBQ	5.07	0.0165	1
11031	1234678-HpCDD	35822-46-9	0.254	JB	5.07	0.0165	1
11031	OCDD	3268-87-9	1.67	JB	10.1	0.0178	1
11031	2378-TCDF	51207-31-9	0.0271	J	1.01	0.0220	1
11031	12378-PeCDF	57117-41-6	0.146	JBQ	5.07	0.0115	1
11031	23478-PeCDF	57117-31-4	0.109	JB	5.07	0.0112	1
11031	123478-HxCDF	70648-26-9	0.0547	JBQ	5.07	0.0118	1
11031	123678-HxCDF	57117-44-9	0.0489	JB	5.07	0.0110	1
11031	123789-HxCDF	72918-21-9	0.0360	JBQ	5.07	0.0134	1
11031	234678-HxCDF	60851-34-5	0.0390	JB	5.07	0.0117	1
11031	1234678-HpCDF	67562-39-4	0.0800	JB	5.07	0.0115	1
11031	1234789-HpCDF	55673-89-7	0.0654	JBQ	5.07	0.0176	1
11031	OCDF	39001-02-0	0.145	JB	10.1	0.0246	1
Toxic Equivalents	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.0570				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	70	25 - 164
13C12-12378-PeCDD	76	25 - 181
13C12-123478-HxCDD	79	32 - 141
13C12-123678-HxCDD	81	28 - 130
13C12-123789-HxCDD	78	28 - 130
13C12-1234678-HpCDD	78	23 - 140
13C12-OCDD	77	17 - 157
13C12-2378-TCDF	65	24 - 169
13C12-12378-PeCDF	76	24 - 185
13C12-23478-PeCDF	74	21 - 178
13C12-123478-HxCDF	78	26 - 152
13C12-123678-HxCDF	83	26 - 123
13C12-234678-HxCDF	77	28 - 136
13C12-123789-HxCDF	75	29 - 147
13C12-1234678-HpCDF	98	28 - 143
13C12-1234789-HpCDF	71	26 - 138
13C12-OCDF	67	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-527-SA7-SB-2.5-3.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7034503
LLI Group # 1385520
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/24/2013 14:40 by SM

Submitted: 04/25/2013 09:30
Reported: 05/09/2013 09:39

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

S5272 SDG#: PH038-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-527-SA7-SB-2.5-3.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7034503
LLI Group # 1385520
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/24/2013 14:40 by SM

Submitted: 04/25/2013 09:30
Reported: 05/09/2013 09:39

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

S5272 SDG#: PH038-06

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13119SLC026	05/01/2013	14:06	Joseph M Gambler	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	13119SLC026	04/29/2013	14:00	David S Schrum	1
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	13108A16D	04/26/2013	20:13	Laura M Krieger	27.41
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201311530874	04/25/2013	15:59	Mitchell R Washel	n.a.
10592	19a PCBs and PCTs 8082A	SW-846 8082A	1	131160002A	04/27/2013	11:37	Monica M Souders	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	131160002A	04/26/2013	22:15	Karen L Beyer	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	131200001A	05/02/2013	05:14	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	131200001A	04/30/2013	18:10	Sally L Appleyard	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13120002	05/02/2013	14:04	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13120002	04/30/2013	11:15	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010C	1	131220637001	05/03/2013	12:10	Joanne M Gates	1
06944	Antimony	SW-846 6010C	1	131220637001	05/03/2013	12:10	Joanne M Gates	1
06935	Arsenic	SW-846 6010C	1	131220637001	05/03/2013	12:10	Joanne M Gates	1
06946	Barium	SW-846 6010C	1	131220637001	05/03/2013	12:10	Joanne M Gates	1
06947	Beryllium	SW-846 6010C	1	131220637001	05/03/2013	12:10	Joanne M Gates	1
07914	Boron	SW-846 6010C	1	131220637001	05/03/2013	12:10	Joanne M Gates	1
06949	Cadmium	SW-846 6010C	1	131220637001	05/03/2013	12:10	Joanne M Gates	1
01650	Calcium	SW-846 6010C	1	131220637001	05/03/2013	12:10	Joanne M Gates	1
06951	Chromium	SW-846 6010C	1	131220637001	05/03/2013	12:10	Joanne M Gates	1
06952	Cobalt	SW-846 6010C	1	131220637001	05/03/2013	12:10	Joanne M Gates	1
06953	Copper	SW-846 6010C	1	131220637001	05/03/2013	12:10	Joanne M Gates	1
01654	Iron	SW-846 6010C	1	131220637001	05/03/2013	12:10	Joanne M Gates	1
06955	Lead	SW-846 6010C	1	131220637001	05/03/2013	12:10	Joanne M Gates	1
01656	Lithium	SW-846 6010C	1	131220637001	05/03/2013	12:10	Joanne M Gates	1
01657	Magnesium	SW-846 6010C	1	131220637001	05/03/2013	12:10	Joanne M Gates	1
06958	Manganese	SW-846 6010C	1	131220637001	05/03/2013	12:10	Joanne M Gates	1
06960	Molybdenum	SW-846 6010C	1	131220637001	05/03/2013	12:10	Joanne M Gates	1
06961	Nickel	SW-846 6010C	1	131220637001	05/03/2013	12:10	Joanne M Gates	1
10145	Phosphorus	SW-846 6010C	1	131220637001	05/03/2013	12:10	Joanne M Gates	1
01662	Potassium	SW-846 6010C	1	131220637001	05/03/2013	12:10	Joanne M Gates	1
01667	Sodium	SW-846 6010C	1	131220637001	05/03/2013	12:10	Joanne M Gates	1
06969	Tin	SW-846 6010C	1	131220637001	05/03/2013	12:10	Joanne M Gates	1
06970	Titanium	SW-846 6010C	1	131220637001	05/03/2013	12:10	Joanne M Gates	1
06971	Vanadium	SW-846 6010C	1	131220637001	05/03/2013	12:10	Joanne M Gates	1
06972	Zinc	SW-846 6010C	1	131220637001	05/03/2013	12:10	Joanne M Gates	1
10146	Zirconium	SW-846 6010C	1	131220637001	05/03/2013	12:10	Joanne M Gates	1
06141	Selenium	SW-846 6020A	1	131220637001B	05/06/2013	11:28	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-527-SA7-SB-2.5-3.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7034503
LLI Group # 1385520
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/24/2013 14:40 by SM

Submitted: 04/25/2013 09:30
Reported: 05/09/2013 09:39

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

S5272 SDG#: PH038-06

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06142	Silver	SW-846 6020A	1	131220637001A	05/06/2013 11:28	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	131220637001A	05/06/2013 11:28	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	131220637001A	05/06/2013 11:28	Choon Y Tian	2
00159	3a Mercury 7471A	SW-846 7471B	1	131220638001	05/03/2013 09:41	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	131220637001	05/02/2013 23:16	Annamaria Stipkovits	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	131220638001	05/03/2013 02:45	Annamaria Stipkovits	1
00394	15a pH by 9045C	SW-846 9045D modified	1	13116039401A	04/26/2013 00:03	Clayton C Litchmore	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13121162401A	05/01/2013 22:00	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: EB-042413 Water
SSFL Phase 3 Subarea 7

LLI Sample # WW 7034504
LLI Group # 1385520
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/24/2013 15:00 by VC

Submitted: 04/25/2013 09:30
Reported: 05/09/2013 09:39

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SLE24 SDG#: PH038-07EB*

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/l**		**ug/l**	**ug/l**	
12971	Acenaphthene	83-32-9	0.054	U	0.054	0.011	1
12971	Acenaphthylene	208-96-8	0.054	U	0.054	0.011	1
12971	Anthracene	120-12-7	0.054	U	0.054	0.011	1
12971	Benzo(a)anthracene	56-55-3	0.054	U	0.054	0.011	1
12971	Benzo(a)pyrene	50-32-8	0.054	U	0.054	0.011	1
12971	Benzo(b)fluoranthene	205-99-2	0.054	U	0.054	0.011	1
12971	Benzo(e)pyrene	192-97-2	0.054	U	0.054	0.011	1
12971	Benzo(g,h,i)perylene	191-24-2	0.054	U	0.054	0.011	1
12971	Benzo(k)fluoranthene	207-08-9	0.054	U	0.054	0.011	1
12971	Butylbenzylphthalate	85-68-7	1.1	U	1.1	0.054	1
12971	Di-n-butylphthalate	84-74-2	0.15	J	1.1	0.054	1
12971	Chrysene	218-01-9	0.054	U	0.054	0.011	1
12971	Dibenz(a,h)anthracene	53-70-3	0.054	U	0.054	0.011	1
12971	Diethylphthalate	84-66-2	0.089	J	1.1	0.054	1
12971	Dimethylphthalate	131-11-3	1.1	U	1.1	0.054	1
12971	Bis(2-Ethylhexyl)phthalate	117-81-7	0.20	J	1.1	0.054	1
12971	Fluoranthene	206-44-0	0.054	U	0.054	0.011	1
12971	Fluorene	86-73-7	0.054	U	0.054	0.011	1
12971	Indeno(1,2,3-cd)pyrene	193-39-5	0.054	U	0.054	0.011	1
12971	1-Methylnaphthalene	90-12-0	0.054	U	0.054	0.011	1
12971	2-Methylnaphthalene	91-57-6	0.011	J	0.054	0.011	1
12971	Naphthalene	91-20-3	0.053	J	0.054	0.033	1
12971	N-Nitrosodimethylamine	62-75-9	0.054	U	0.054	0.011	1
12971	Di-n-octylphthalate	117-84-0	1.1	U	1.1	0.054	1
12971	Phenanthrene	85-01-8	0.054	U	0.054	0.033	1
12971	Pyrene	129-00-0	0.054	U	0.054	0.011	1

Target analytes were detected in the method blank associated with the samples as noted on the QC Summary. Since the result is within the acceptance range allowed by the method, the data is reported.

GC Volatiles	**TPH GRO SW-8015B**		**ug/l**		**ug/l**	**ug/l**	
08229	TPH-GRO S.CA water C5-C12	n.a.	50	U	50	20	1
Pesticides/PCBs	**SW-846 8081B**		**ug/l**		**ug/l**	**ug/l**	
10589	Aldrin	309-00-2	0.0084	U	0.0084	0.0017	1
10589	Alpha BHC	319-84-6	0.0084	U	0.0084	0.0025	1
10589	Beta BHC	319-85-7	0.0084	U	0.0084	0.0028	1
10589	Gamma BHC - Lindane	58-89-9	0.0084	U	0.0084	0.0017	1
10589	Chlordane	57-74-9	0.42	U	0.42	0.13	1
10589	p,p-DDD	72-54-8	0.017	U	0.017	0.0042	1
10589	p,p-DDE	72-55-9	0.017	U	0.017	0.0042	1
10589	p,p-DDT	50-29-3	0.017	U	0.017	0.0044	1
10589	Delta BHC	319-86-8	0.0084	U	0.0084	0.0028	1
10589	Dieldrin	60-57-1	0.017	U	0.017	0.0044	1
10589	Endosulfan I	959-98-8	0.0084	U	0.0084	0.0036	1
10589	Endosulfan II	33213-65-9	0.017	U	0.017	0.013	1
10589	Endosulfan Sulfate	1031-07-8	0.017	U	0.017	0.0049	1
10589	Endrin	72-20-8	0.017	U	0.017	0.0068	1
10589	Endrin Aldehyde	7421-93-4	0.084	U	0.084	0.017	1
10589	Endrin Ketone	53494-70-5	0.017	U	0.017	0.0042	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: EB-042413 Water
SSFL Phase 3 Subarea 7

LLI Sample # WW 7034504
LLI Group # 1385520
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/24/2013 15:00 by VC

Submitted: 04/25/2013 09:30
Reported: 05/09/2013 09:39

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SLE24 SDG#: PH038-07EB*

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
Pesticides/PCBs	**SW-846 8081B**		**ug/l**	**ug/l**	**ug/l**	
10589	Heptachlor	76-44-8	0.0084 U	0.0084	0.0017	1
10589	Heptachlor Epoxide	1024-57-3	0.0084 U	0.0084	0.0019	1
10589	Methoxychlor	72-43-5	0.084 U	0.084	0.025	1
10589	Mirex	2385-85-5	0.21 U	0.21	0.071	1
10589	Toxaphene	8001-35-2	2.5 U	2.5	0.84	1
Pesticides/PCBs	**SW-846 8082A**		**ug/l**	**ug/l**	**ug/l**	
10591	Aroclor 5432	63496-31-1	0.42 U	0.42	0.084	1
10591	Aroclor 5442	12642-23-8	0.42 U	0.42	0.084	1
10591	Aroclor 5460	11126-42-4	0.42 U	0.42	0.084	1
10591	PCB-1016	12674-11-2	0.42 U	0.42	0.084	1
10591	PCB-1221	11104-28-2	0.42 U	0.42	0.084	1
10591	PCB-1232	11141-16-5	0.42 U	0.42	0.17	1
10591	PCB-1242	53469-21-9	0.42 U	0.42	0.084	1
10591	PCB-1248	12672-29-6	0.42 U	0.42	0.084	1
10591	PCB-1254	11097-69-1	0.42 U	0.42	0.084	1
10591	PCB-1260	11096-82-5	0.42 U	0.42	0.13	1
10591	PCB-1262	37324-23-5	0.42 U	0.42	0.17	1
10591	PCB-1268	11100-14-4	0.42 U	0.42	0.13	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/l**	**mg/l**	**mg/l**	
10365	EFH (C12-C14)	n.a.	0.58 U	0.58	0.097	1
10365	EFH (C15-C20)	n.a.	0.58 U	0.58	0.097	1
10365	EFH (C21-C30)	n.a.	0.58 U	0.58	0.097	1
10365	EFH (C30 - C40)	n.a.	0.58 U	0.58	0.097	1
10365	EFH (C8-C11)	n.a.	0.58 U	0.58	0.097	1

The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.
The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.
The recovery for the sample surrogate(s) is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken:
The sample was re-extracted outside the method required holding time and the QC is compliant. All results are reported from the first trial. Similar results were obtained in both trials.

Metals	**SW-846 6010C**		**mg/l**	**mg/l**	**mg/l**	
01743	Aluminum	7429-90-5	0.400 U	0.400	0.0743	1
07044	Antimony	7440-36-0	0.0400 U	0.0400	0.0035	1
07035	Arsenic	7440-38-2	0.0400 U	0.0400	0.0068	1
07046	Barium	7440-39-3	0.0100 U	0.0100	0.00033	1
07047	Beryllium	7440-41-7	0.0100 U	0.0100	0.00067	1
08014	Boron	7440-42-8	0.0319 J	0.100	0.0083	1
07049	Cadmium	7440-43-9	0.0100 U	0.0100	0.00036	1
01750	Calcium	7440-70-2	0.400 U	0.400	0.0640	1
07051	Chromium	7440-47-3	0.0300 U	0.0300	0.0011	1
07052	Cobalt	7440-48-4	0.0100 U	0.0100	0.00066	1
07053	Copper	7440-50-8	0.0200 U	0.0200	0.0021	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: EB-042413 Water
SSFL Phase 3 Subarea 7

LLI Sample # WW 7034504
LLI Group # 1385520
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/24/2013 15:00 by VC

Submitted: 04/25/2013 09:30
Reported: 05/09/2013 09:39

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SLE24 SDG#: PH038-07EB*

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/l**	**mg/l**	**mg/l**	
01754	Iron	7439-89-6	0.400 U	0.400	0.0333	1
07055	Lead	7439-92-1	0.0300 U	0.0300	0.0051	1
01756	Lithium	7439-93-2	0.0400 U	0.0400	0.0060	1
01757	Magnesium	7439-95-4	0.200 U	0.200	0.0606	1
07058	Manganese	7439-96-5	0.0100 U	0.0100	0.00083	1
07060	Molybdenum	7439-98-7	0.0200 U	0.0200	0.0029	1
07061	Nickel	7440-02-0	0.0200 U	0.0200	0.0011	1
10143	Phosphorus	7723-14-0	0.200 U	0.200	0.0052	1
01762	Potassium	7440-09-7	1.00 U	1.00	0.145	1
01767	Sodium	7440-23-5	0.228 J	2.00	0.167	1
07069	Tin	7440-31-5	0.0035 J	0.0400	0.0022	1
07070	Titanium	7440-32-6	0.0200 U	0.0200	0.0017	1
07071	Vanadium	7440-62-2	0.0100 U	0.0100	0.0013	1
07072	Zinc	7440-66-6	0.0400 U	0.0400	0.0020	1
10144	Zirconium	7440-67-7	0.100 U	0.100	0.0092	1
	SW-846 6020A		**mg/l**	**mg/l**	**mg/l**	
06041	Selenium	7782-49-2	0.0040 U	0.0040	0.00050	1
06042	Silver	7440-22-4	0.0010 U	0.0010	0.00010	1
06044	Strontium	7440-24-6	0.0020 U	0.0020	0.00022	1
06045	Thallium	7440-28-0	0.0010 U	0.0010	0.00015	1
	SW-846 7470A		**mg/l**	**mg/l**	**mg/l**	
00259	3b Mercury 7470A	7439-97-6	0.00020 U	0.00020	0.000070	1
Wet Chemistry	**SW-846 9040C**		**Std. Units**	**Std. Units**	**Std. Units**	
12152	28b. pH (9040B and 9040C)	n.a.	5.7	0.010	0.010	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: EB-042413 Water
SSFL Phase 3 Subarea 7

LLI Sample # WW 7034504
LLI Group # 1385520
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/24/2013 15:00 by VC

Submitted: 04/25/2013 09:30
Reported: 05/09/2013 09:39

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SLE24 SDG#: PH038-07EB*

CAT No.	Analysis Name	CAS Number	As Received Result		As Received MRL*	As Received EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		**pg/l**		**pg/l**	**pg/l**	
10915	2378-TCDD	1746-01-6	1.93	U	1.93	0.230	1
10915	12378-PeCDD	40321-76-4	9.65	U	9.65	0.259	1
10915	123478-HxCDD	39227-28-6	9.65	U	9.65	0.136	1
10915	123678-HxCDD	57653-85-7	9.65	U	9.65	0.150	1
10915	123789-HxCDD	19408-74-3	0.282	JBQ	9.65	0.136	1
10915	1234678-HpCDD	35822-46-9	0.448	JB	9.65	0.152	1
10915	OCDD	3268-87-9	0.854	JBQ	19.3	0.234	1
10915	2378-TCDF	51207-31-9	1.93	U	1.93	0.143	1
10915	12378-PeCDF	57117-41-6	0.561	JBQ	9.65	0.137	1
10915	23478-PeCDF	57117-31-4	0.409	JBQ	9.65	0.152	1
10915	123478-HxCDF	70648-26-9	0.251	JB	9.65	0.0877	1
10915	123678-HxCDF	57117-44-9	0.255	JB	9.65	0.0881	1
10915	123789-HxCDF	72918-21-9	0.240	JB	9.65	0.0831	1
10915	234678-HxCDF	60851-34-5	0.178	JB	9.65	0.0900	1
10915	1234678-HpCDF	67562-39-4	0.199	JBQ	9.65	0.0523	1
10915	1234789-HpCDF	55673-89-7	0.191	JBQ	9.65	0.0633	1
10915	OCDF	39001-02-0	0.673	JBQ	19.3	0.175	1
Toxic Equivalents	**EPA 1613B**		**pg/l**		**pg/l**	**pg/l**	
10915	TEQ WHO 2005 - EDLx0.0	n.a.	0.0969				1

Labeled Compounds	**%Rec**	**Windows**
13C12-2378-TCDD	57	25 - 164
13C12-12378-PeCDD	56	25 - 181
13C12-123478-HxCDD	74	32 - 141
13C12-123678-HxCDD	71	28 - 130
13C12-123789-HxCDD	71	28 - 130
13C12-1234678-HpCDD	81	23 - 140
13C12-OCDD	88	17 - 157
13C12-2378-TCDF	60	24 - 169
13C12-12378-PeCDF	68	24 - 185
13C12-23478-PeCDF	57	21 - 178
13C12-123478-HxCDF	70	26 - 152
13C12-123678-HxCDF	68	26 - 123
13C12-234678-HxCDF	67	28 - 136
13C12-123789-HxCDF	83	29 - 147
13C12-1234678-HpCDF	75	28 - 143
13C12-1234789-HpCDF	75	26 - 138
13C12-OCDF	78	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration

*=This limit was used in the evaluation of the final result

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Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: EB-042413 Water
SSFL Phase 3 Subarea 7

LLI Sample # WW 7034504
LLI Group # 1385520
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/24/2013 15:00 by VC

Submitted: 04/25/2013 09:30
Reported: 05/09/2013 09:39

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SLE24 SDG#: PH038-07EB*

CAT No.	Analysis Name	CAS Number	As Received Result	As Received MRL*	As Received EDL	Dilution Factor

F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

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2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Analysis Report

Sample Description: EB-042413 Water
SSFL Phase 3 Subarea 7

LLI Sample # WW 7034504
LLI Group # 1385520
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/24/2013 15:00 by VC

Submitted: 04/25/2013 09:30
Reported: 05/09/2013 09:39

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SLE24 SDG#: PH038-07EB*

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12971	7b SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13119WAI026	05/07/2013 00:32	Holly Berry	1
10466	BNA Water Extraction SIM	SW-846 3510C	1	13119WAI026	04/30/2013 10:20	Elizabeth A Sholder	1
08229	11b TPH by EPA 8015B GRO	TPH GRO SW-8015B	1	13115B20A	04/26/2013 12:40	Catherine J Schwarz	1
01146	GC VOA Water Prep	SW-846 5030B	1	13115B20A	04/26/2013 12:40	Catherine J Schwarz	1
10589	22b Pesticides by EPA 8081B	SW-846 8081B	1	131190017A	05/03/2013 21:00	Jamie L Brillhart	1
10591	21b PCBs and PCTs 8082A	SW-846 8082A	1	131190018A	05/03/2013 00:26	Monica M Souders	1
11121	PCB Waters Update IV Ext	SW-846 3510C	1	131190018A	04/30/2013 10:30	William H Saadeh	1
11120	Pesticide Waters Update IV Ext	SW-846 3510C	1	131190017A	04/30/2013 10:30	William H Saadeh	1
10365	10b TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	131200026A	05/01/2013 22:20	Heather E Williams	1
11203	EFH Waters Extraction	SW-846 3510C	1	131200026A	05/01/2013 07:10	Catherine R Wiker	1
10915	17b Dioxin/Furan by EPA 1613B	EPA 1613B	1	13122002	05/03/2013 22:18	Joseph D Anderson	1
10914	Dioxins/Furans in Water - SepF	EPA 1613B	1	13122002	05/02/2013 08:00	Deborah M Zimmerman	1
01743	Aluminum	SW-846 6010C	1	131180635001	04/29/2013 18:37	Katlin N Cataldi	1
07044	Antimony	SW-846 6010C	1	131180635001	04/29/2013 18:37	Katlin N Cataldi	1
07035	Arsenic	SW-846 6010C	1	131180635001	04/29/2013 18:37	Katlin N Cataldi	1
07046	Barium	SW-846 6010C	1	131180635001	04/29/2013 18:37	Katlin N Cataldi	1
07047	Beryllium	SW-846 6010C	1	131180635001	04/29/2013 18:37	Katlin N Cataldi	1
08014	Boron	SW-846 6010C	1	131180635001	04/29/2013 18:37	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010C	1	131180635001	04/29/2013 18:37	Katlin N Cataldi	1
01750	Calcium	SW-846 6010C	1	131180635001	04/29/2013 18:37	Katlin N Cataldi	1
07051	Chromium	SW-846 6010C	1	131180635001	04/29/2013 18:37	Katlin N Cataldi	1
07052	Cobalt	SW-846 6010C	1	131180635001	04/29/2013 18:37	Katlin N Cataldi	1
07053	Copper	SW-846 6010C	1	131180635001	04/29/2013 18:37	Katlin N Cataldi	1
01754	Iron	SW-846 6010C	1	131180635001	04/29/2013 18:37	Katlin N Cataldi	1
07055	Lead	SW-846 6010C	1	131180635001	04/29/2013 18:37	Katlin N Cataldi	1
01756	Lithium	SW-846 6010C	1	131180635001	04/29/2013 18:37	Katlin N Cataldi	1
01757	Magnesium	SW-846 6010C	1	131180635001	04/29/2013 18:37	Katlin N Cataldi	1
07058	Manganese	SW-846 6010C	1	131180635001	04/29/2013 18:37	Katlin N Cataldi	1
07060	Molybdenum	SW-846 6010C	1	131180635001	04/29/2013 18:37	Katlin N Cataldi	1
07061	Nickel	SW-846 6010C	1	131180635001	04/29/2013 18:37	Katlin N Cataldi	1
10143	Phosphorus	SW-846 6010C	1	131180635001	04/29/2013 18:37	Katlin N Cataldi	1
01762	Potassium	SW-846 6010C	1	131180635001	04/29/2013 18:37	Katlin N Cataldi	1
01767	Sodium	SW-846 6010C	1	131180635001	04/29/2013 18:37	Katlin N Cataldi	1
07069	Tin	SW-846 6010C	1	131180635001	04/29/2013 18:37	Katlin N Cataldi	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: EB-042413 Water
SSFL Phase 3 Subarea 7

LLI Sample # WW 7034504
LLI Group # 1385520
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/24/2013 15:00 by VC

Submitted: 04/25/2013 09:30
Reported: 05/09/2013 09:39

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SLE24 SDG#: PH038-07EB*

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07070	Titanium	SW-846 6010C	1	131180635001	04/29/2013 18:37	Katlin N Cataldi	1
07071	Vanadium	SW-846 6010C	1	131180635001	04/29/2013 18:37	Katlin N Cataldi	1
07072	Zinc	SW-846 6010C	1	131180635001	04/29/2013 18:37	Katlin N Cataldi	1
10144	Zirconium	SW-846 6010C	1	131180635001	04/29/2013 18:37	Katlin N Cataldi	1
06041	Selenium	SW-846 6020A	1	131180639001B	04/30/2013 14:04	David K Beck	1
06042	Silver	SW-846 6020A	1	131180639001A	04/30/2013 14:04	David K Beck	1
06044	Strontium	SW-846 6020A	1	131180639001A	04/30/2013 14:04	David K Beck	1
06045	Thallium	SW-846 6020A	1	131180639001A	04/30/2013 14:04	David K Beck	1
00259	3b Mercury 7470A	SW-846 7470A	1	131205713006	05/02/2013 10:28	Damary Valentin	1
10635	WW SW846(IV) ICP Dig (tot rec)	SW-846 3005A	1	131180635001	04/29/2013 09:52	James L Mertz	1
10639	ICP/MS SW846 (IV) Water Digest	SW-846 3010A modified	1	131180639001	04/29/2013 10:00	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	131205713006	05/01/2013 18:20	Nelli S Markaryan	1
12152	28b. pH (9040B and 9040C)	SW-846 9040C	1	13115002101A	04/25/2013 23:31	Clayton C Litchmore	1

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1385520
Reported: 05/09/13 at 09:39 AM

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 13119SLC026	Sample number(s): 7034499-7034503									
Acenaphthene	1.7	U	1.7	0.67	ug/kg	99		69-114		
Acenaphthylene	1.7	U	1.7	0.33	ug/kg	100		71-113		
Anthracene	1.7	U	1.7	0.33	ug/kg	100		75-116		
Benzo(a)anthracene	1.7	U	1.7	0.67	ug/kg	98		76-115		
Benzo(a)pyrene	1.7	U	1.7	0.67	ug/kg	99		76-117		
Benzo(b)fluoranthene	1.7	U	1.7	0.67	ug/kg	115		77-129		
Benzo(e)pyrene	17	U	17.	3.3	ug/kg	100		70-130		
Benzo(g,h,i)perylene	1.7	U	1.7	0.67	ug/kg	96		64-120		
Benzo(k)fluoranthene	1.7	U	1.7	0.67	ug/kg	98		71-120		
Butylbenzylphthalate	18	U	18.	6.0	ug/kg	89		65-131		
Di-n-butylphthalate	18	U	18.	6.0	ug/kg	99		67-140		
Chrysene	1.7	U	1.7	0.33	ug/kg	97		78-111		
Dibenz(a,h)anthracene	1.7	U	1.7	0.67	ug/kg	97		65-124		
Diethylphthalate	18	U	18.	6.0	ug/kg	101		68-125		
Dimethylphthalate	18	U	18.	6.0	ug/kg	99		70-130		
Bis(2-Ethylhexyl)phthalate	18	U	18.	6.0	ug/kg	86		67-143		
Fluoranthene	1.7	U	1.7	0.67	ug/kg	95		68-119		
Fluorene	1.7	U	1.7	0.67	ug/kg	104		75-123		
Indeno(1,2,3-cd)pyrene	1.7	U	1.7	0.67	ug/kg	98		66-122		
1-Methylnaphthalene	1.7	U	1.7	0.67	ug/kg	101		74-113		
2-Methylnaphthalene	1.7	U	1.7	0.67	ug/kg	100		78-121		
Naphthalene	1.7	U	1.7	0.67	ug/kg	100		64-120		
N-Nitrosodimethylamine	1.7	U	1.7	0.67	ug/kg	98		30-125		
Di-n-octylphthalate	18	U	18.	6.0	ug/kg	92		57-133		
Phenanthrene	1.7	U	1.7	0.67	ug/kg	97		72-110		
Pyrene	1.7	U	1.7	0.67	ug/kg	90		71-120		
Batch number: 13119WAI026	Sample number(s): 7034504									
Acenaphthene	0.050	U	0.050	0.010	ug/l	100	101	65-124	1	30
Acenaphthylene	0.050	U	0.050	0.010	ug/l	106	107	72-113	1	30
Anthracene	0.050	U	0.050	0.010	ug/l	103	102	70-117	0	30
Benzo(a)anthracene	0.050	U	0.050	0.010	ug/l	100	101	75-115	0	30
Benzo(a)pyrene	0.050	U	0.050	0.010	ug/l	99	100	72-120	1	30
Benzo(b)fluoranthene	0.050	U	0.050	0.010	ug/l	108	107	74-130	1	30
Benzo(e)pyrene	0.050	U	0.050	0.010	ug/l	88	88	70-130	0	30
Benzo(g,h,i)perylene	0.050	U	0.050	0.010	ug/l	99	99	63-121	1	30
Benzo(k)fluoranthene	0.050	U	0.050	0.010	ug/l	110	111	74-118	0	30
Butylbenzylphthalate	1.0	U	1.0	0.050	ug/l	73	66	40-138	10	30
Di-n-butylphthalate	1.0	U	1.0	0.050	ug/l	97	95	70-145	2	30
Chrysene	0.050	U	0.050	0.010	ug/l	102	103	75-112	1	30
Dibenz(a,h)anthracene	0.050	U	0.050	0.010	ug/l	99	99	66-122	0	30
Diethylphthalate	1.0	U	1.0	0.050	ug/l	101	97	74-129	5	30
Dimethylphthalate	1.0	U	1.0	0.050	ug/l	89	79	40-119	11	30

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1385520
Reported: 05/09/13 at 09:39 AM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Bis(2-Ethylhexyl)phthalate	0.16	J	1.0	0.050	ug/l	87	100	70-143	14	30
Fluoranthene	0.050	U	0.050	0.010	ug/l	104	105	73-116	0	30
Fluorene	0.050	U	0.050	0.010	ug/l	100	100	74-115	1	30
Indeno(1,2,3-cd)pyrene	0.050	U	0.050	0.010	ug/l	94	95	66-122	1	30
1-Methylnaphthalene	0.050	U	0.050	0.010	ug/l	105	106	71-120	0	30
2-Methylnaphthalene	0.050	U	0.050	0.010	ug/l	102	103	74-119	1	30
Naphthalene	0.050	U	0.050	0.030	ug/l	101	101	67-118	0	30
N-Nitrosodimethylamine	0.050	U	0.050	0.010	ug/l	81	80	36-120	1	30
Di-n-octylphthalate	1.0	U	1.0	0.050	ug/l	67	64	57-145	3	30
Phenanthrene	0.050	U	0.050	0.030	ug/l	102	102	72-109	0	30
Pyrene	0.050	U	0.050	0.010	ug/l	104	106	71-116	1	30
Batch number: 13108A16D	Sample number(s): 7034499,7034503									
11a TPH by EPA 8015B GRO	1.0	U	1.0	0.2	mg/kg	89	82	67-119	8	30
Batch number: 13115B20A	Sample number(s): 7034498,7034504									
TPH-GRO S.CA water C5-C12	50	U	50.	20	ug/l	95	97	75-135	2	30
Batch number: 131160002A	Sample number(s): 7034499-7034503									
Aroclor 5432	33	U	33.	10	ug/kg					
Aroclor 5442	33	U	33.	10	ug/kg	81	81	36-106	0	30
Aroclor 5460	33	U	33.	10	ug/kg					
PCB-1016	17	U	17.	3.3	ug/kg	99		80-120		
PCB-1221	17	U	17.	5.1	ug/kg					
PCB-1232	17	U	17.	4.1	ug/kg					
PCB-1242	17	U	17.	3.3	ug/kg					
PCB-1248	17	U	17.	3.3	ug/kg					
PCB-1254	17	U	17.	4.4	ug/kg					
PCB-1260	17	U	17.	3.9	ug/kg	103		72-120		
PCB-1262	17	U	17.	3.3	ug/kg					
PCB-1268	17	U	17.	3.3	ug/kg					
Batch number: 131190017A	Sample number(s): 7034504									
Aldrin	0.0080	U	0.0080	0.0016	ug/l	85	92	55-126	8	30
Alpha BHC	0.0080	U	0.0080	0.0024	ug/l	102	108	63-132	6	30
Beta BHC	0.0080	U	0.0080	0.0027	ug/l	95	104	63-132	8	30
Gamma BHC - Lindane	0.0080	U	0.0080	0.0016	ug/l	106	116	68-128	9	30
Chlordane	0.40	U	0.40	0.13	ug/l					
p,p-DDD	0.016	U	0.016	0.0040	ug/l	113	129	62-143	14	30
p,p-DDE	0.016	U	0.016	0.0040	ug/l	101	108	56-137	6	30
p,p-DDT	0.016	U	0.016	0.0042	ug/l	135*	149*	45-134	9	30
Delta BHC	0.0080	U	0.0080	0.0027	ug/l	101	109	63-131	8	30
Dieldrin	0.016	U	0.016	0.0042	ug/l	106	110	65-135	3	30
Endosulfan I	0.0080	U	0.0080	0.0034	ug/l	97	109	48-124	12	30
Endosulfan II	0.016	U	0.016	0.012	ug/l	112	122	53-123	8	30
Endosulfan Sulfate	0.016	U	0.016	0.0046	ug/l	112	128	60-129	13	30
Endrin	0.016	U	0.016	0.0065	ug/l	100	108	43-139	8	30
Endrin Aldehyde	0.080	U	0.080	0.016	ug/l	101	115	55-123	13	20
Endrin Ketone	0.016	U	0.016	0.0040	ug/l	116	122	51-138	5	30
Heptachlor	0.0080	U	0.0080	0.0016	ug/l	96	109	57-126	13	30
Heptachlor Epoxide	0.0080	U	0.0080	0.0018	ug/l	99	105	65-128	6	30
Methoxychlor	0.080	U	0.080	0.024	ug/l	154*	174*	46-134	12	30
Mirex	0.20	U	0.20	0.068	ug/l					
Toxaphene	2.4	U	2.4	0.80	ug/l					
Batch number: 131190018A	Sample number(s): 7034504									

*- Outside of specification
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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1385520
Reported: 05/09/13 at 09:39 AM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Aroclor 5432	0.40	U	0.40	0.080	ug/l					
Aroclor 5442	0.40	U	0.40	0.080	ug/l	67	70	35-84	3	30
Aroclor 5460	0.40	U	0.40	0.080	ug/l					
PCB-1016	0.40	U	0.40	0.080	ug/l	99	101	69-120	2	30
PCB-1221	0.40	U	0.40	0.080	ug/l					
PCB-1232	0.40	U	0.40	0.16	ug/l					
PCB-1242	0.40	U	0.40	0.080	ug/l					
PCB-1248	0.40	U	0.40	0.080	ug/l					
PCB-1254	0.40	U	0.40	0.080	ug/l					
PCB-1260	0.40	U	0.40	0.12	ug/l	93	98	69-128	6	30
PCB-1262	0.40	U	0.40	0.16	ug/l					
PCB-1268	0.40	U	0.40	0.13	ug/l					
Batch number: 131200001A	Sample number(s): 7034499-7034503									
EFH (C12-C14)	5.0	U	5.0	2.0	mg/kg	93		70-123		
EFH (C15-C20)	5.0	U	5.0	2.0	mg/kg	99		75-128		
EFH (C21-C30)	5.0	U	5.0	2.0	mg/kg	97		64-134		
EFH (C30-C40)	10	U	10.	4.0	mg/kg	63*		65-128		
EFH (C8-C11)	5.0	U	5.0	2.0	mg/kg	80		49-107		
Batch number: 131200026A	Sample number(s): 7034504									
EFH (C12-C14)	0.60	U	0.60	0.10	mg/l	77	80	70-130	4	30
EFH (C15-C20)	0.60	U	0.60	0.10	mg/l	80	84	70-130	4	30
EFH (C21-C30)	0.60	U	0.60	0.10	mg/l	83	87	70-130	4	30
EFH (C30 - C40)	0.60	U	0.60	0.10	mg/l	64*	67*	70-130	6	30
EFH (C8-C11)	0.60	U	0.60	0.10	mg/l	67*	72	70-130	8	30
Batch number: 131180635001	Sample number(s): 7034504									
Aluminum	0.400	U	0.400	0.0743	mg/l	100	103	90-112	2	20
Antimony	0.0400	U	0.0400	0.0035	mg/l	104	103	88-111	1	20
Arsenic	0.0400	U	0.0400	0.0068	mg/l	98	96	90-113	2	20
Barium	0.0100	U	0.0100	0.00033	mg/l	103	103	90-110	0	20
Beryllium	0.0100	U	0.0100	0.00067	mg/l	100	100	88-110	0	20
Boron	0.100	U	0.100	0.0083	mg/l	97	95	89-110	2	20
Cadmium	0.0100	U	0.0100	0.00036	mg/l	101	102	90-112	0	20
Calcium	0.400	U	0.400	0.0640	mg/l	101	102	90-110	1	20
Chromium	0.0300	U	0.0300	0.0011	mg/l	100	100	90-110	0	20
Cobalt	0.0100	U	0.0100	0.00066	mg/l	101	102	90-110	1	20
Copper	0.0200	U	0.0200	0.0021	mg/l	102	102	90-112	0	20
Iron	0.400	U	0.400	0.0333	mg/l	98	99	90-112	2	20
Lead	0.0300	U	0.0300	0.0051	mg/l	102	104	88-110	2	20
Lithium	0.0400	U	0.0400	0.0060	mg/l	101	101	90-110	1	20
Magnesium	0.200	U	0.200	0.0606	mg/l	99	100	90-110	1	20
Manganese	0.0100	U	0.0100	0.00083	mg/l	102	102	90-110	0	20
Molybdenum	0.0200	U	0.0200	0.0029	mg/l	102	103	90-110	1	20
Nickel	0.0200	U	0.0200	0.0011	mg/l	104	104	90-111	0	20
Phosphorus	0.200	U	0.200	0.0052	mg/l	99	100	90-110	1	20
Potassium	1.00	U	1.00	0.145	mg/l	100	100	85-115	1	20
Sodium	2.00	U	2.00	0.167	mg/l	101	102	87-114	1	20
Tin	0.0400	U	0.0400	0.0022	mg/l	99	100	90-110	1	20
Titanium	0.0200	U	0.0200	0.0017	mg/l	102	102	90-113	1	20
Vanadium	0.0100	U	0.0100	0.0013	mg/l	102	103	90-110	1	20
Zinc	0.0400	U	0.0400	0.0020	mg/l	102	102	90-110	0	20
Zirconium	0.100	U	0.100	0.0092	mg/l	103	105	90-110	2	20
Batch number: 131180639001A	Sample number(s): 7034504									

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(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1385520
Reported: 05/09/13 at 09:39 AM

Analysis Name	Blank Result	Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Silver	0.0010 U	0.0010	0.00010	mg/l	99	100	90-115	1	20
Strontium	0.0020 U	0.0020	0.00022	mg/l	96	100	80-120	4	20
Thallium	0.0010 U	0.0010	0.00015	mg/l	98	100	80-120	2	20
Batch number: 131180639001B	Sample number(s): 7034504								
Selenium	0.0040 U	0.0040	0.00050	mg/l	98	106	80-120	8	20
Batch number: 131205713006	Sample number(s): 7034504								
3b Mercury 7470A	0.00020 U	0.00020	0.00007 0	mg/l	92	92	90-115	1	20
Batch number: 131220637001	Sample number(s): 7034499-7034503								
Aluminum	40.0 U	40.0	7.71	mg/kg	101		80-120		
Antimony	4.00 U	4.00	0.500	mg/kg	104		80-120		
Arsenic	4.00 U	4.00	0.330	mg/kg	104		80-120		
Barium	1.00 U	1.00	0.0330	mg/kg	104		80-120		
Beryllium	1.00 U	1.00	0.0670	mg/kg	103		80-120		
Boron	10.0 U	10.0	0.830	mg/kg	99		80-120		
Cadmium	1.00 U	1.00	0.0330	mg/kg	103		80-120		
Calcium	20.0 U	20.0	4.02	mg/kg	103		80-120		
Chromium	3.00 U	3.00	0.0880	mg/kg	102		80-120		
Cobalt	1.00 U	1.00	0.0900	mg/kg	106		80-120		
Copper	2.00 U	2.00	0.180	mg/kg	109		80-120		
Iron	40.0 U	40.0	3.80	mg/kg	101		80-120		
Lead	3.00 U	3.00	0.470	mg/kg	106		80-120		
Lithium	4.0 U	4.0	0.55	mg/kg	103		80-120		
Magnesium	10.0 U	10.0	1.73	mg/kg	99		80-120		
Manganese	1.00 U	1.00	0.0830	mg/kg	105		80-120		
Molybdenum	2.00 U	2.00	0.170	mg/kg	102		80-120		
Nickel	2.00 U	2.00	0.110	mg/kg	107		80-120		
Phosphorus	1.44 J	10.0	0.510	mg/kg	106		80-120		
Potassium	100 U	100.	13.5	mg/kg	100		80-120		
Sodium	100 U	100.	16.7	mg/kg	100		80-120		
Tin	1.47 J	10.0	0.220	mg/kg	103		80-120		
Titanium	1.00 U	1.00	0.170	mg/kg	103		80-120		
Vanadium	1.00 U	1.00	0.110	mg/kg	102		80-120		
Zinc	4.00 U	4.00	0.200	mg/kg	105		80-120		
Zirconium	5.00 U	5.00	0.830	mg/kg	101		80-120		
Batch number: 131220637001A	Sample number(s): 7034499-7034503								
Silver	0.200 U	0.200	0.0200	mg/kg	109		80-120		
Strontium	0.400 U	0.400	0.0340	mg/kg	110		80-120		
Thallium	0.200 U	0.200	0.0300	mg/kg	105		80-120		
Batch number: 131220637001B	Sample number(s): 7034499-7034503								
Selenium	0.400 U	0.400	0.100	mg/kg	107		80-120		
Batch number: 131220638001	Sample number(s): 7034499-7034503								
3a Mercury 7471A	0.0167 U	0.0167	0.0100	mg/kg	108		85-120		
Batch number: 13115002101A	Sample number(s): 7034504								
28b. pH (9040B and 9040C)					100		99-103		
Batch number: 13116039401A	Sample number(s): 7034499-7034503								

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1385520
Reported: 05/09/13 at 09:39 AM

Analysis Name	Blank Result	Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
15a pH by 9045C					99		95-105		
Batch number: 13121162401A	Sample number(s): 7034499-7034503								
14a Moisture Content by 160.3					99		80-120		

Analysis Name	Blank Result	Blank MRL**	Blank EDL	Report Units	OPR %REC	OPRD %REC	OPR/OPRD Limits	RPD	RPD Max
Batch number: 13120002	Sample number(s): 7034499-7034503								
2378-TCDD	1.00 U	1.00	0.0200	ng/kg	93		67-158		
12378-PeCDD	5.00 U	5.00	0.0209	ng/kg	96		70-142		
123478-HxCDD	5.00 U	5.00	0.0137	ng/kg	102		70-164		
123678-HxCDD	5.00 U	5.00	0.0147	ng/kg	99		76-134		
123789-HxCDD	0.0225 J	5.00	0.0141	ng/kg	99		64-162		
1234678-HpCDD	0.0731 J	5.00	0.0152	ng/kg	98		70-140		
OCDD	0.155 J	10.0	0.0149	ng/kg	98		78-144		
2378-TCDF	1.00 U	1.00	0.0167	ng/kg	96		75-158		
12378-PeCDF	0.0365 J	5.00	0.00978	ng/kg	100		80-134		
23478-PeCDF	0.0100 J	5.00	0.00992	ng/kg	101		68-160		
123478-HxCDF	0.0375 J	5.00	0.0105	ng/kg	103		72-134		
123678-HxCDF	0.0203 J	5.00	0.00971	ng/kg	100		84-130		
123789-HxCDF	0.0140 J	5.00	0.0114	ng/kg	101		78-130		
234678-HxCDF	0.0283 J	5.00	0.0104	ng/kg	100		70-156		
1234678-HpCDF	0.0401 J	5.00	0.00639	ng/kg	98		82-122		
1234789-HpCDF	0.0269 J	5.00	0.0103	ng/kg	100		78-138		
OCDF	0.107 J	10.0	0.0237	ng/kg	99		63-170		
Batch number: 13122002	Sample number(s): 7034504								
2378-TCDD	0.231 J	2.00	0.221	pg/l	93		60-150		
12378-PeCDD	0.315 J	10.0	0.205	pg/l	92		60-150		
123478-HxCDD	0.249 J	10.0	0.142	pg/l	90		60-150		
123678-HxCDD	0.211 J	10.0	0.151	pg/l	90		60-150		
123789-HxCDD	0.197 J	10.0	0.147	pg/l	90		60-150		
1234678-HpCDD	0.480 J	10.0	0.153	pg/l	90		60-150		
OCDD	0.631 J	20.0	0.293	pg/l	89		60-150		
2378-TCDF	0.183 J	2.00	0.174	pg/l	96		60-150		
12378-PeCDF	0.487 J	10.0	0.143	pg/l	91		60-150		
23478-PeCDF	0.214 J	10.0	0.127	pg/l	91		60-150		
123478-HxCDF	0.185 J	10.0	0.0968	pg/l	88		60-150		
123678-HxCDF	0.186 J	10.0	0.0935	pg/l	88		60-150		
123789-HxCDF	0.423 J	10.0	0.111	pg/l	89		60-150		
234678-HxCDF	0.377 J	10.0	0.0974	pg/l	89		60-150		
1234678-HpCDF	0.366 J	10.0	0.0562	pg/l	90		60-150		
1234789-HpCDF	0.365 J	10.0	0.0753	pg/l	90		60-150		
OCDF	0.595 J	20.0	0.252	pg/l	89		60-150		
Batch number: 13120002	Sample number(s): 7034499-7034503								
TEQ WHO 2005 - EDLx0.0	0.00349			ng/kg					
Batch number: 13122002	Sample number(s): 7034504								
TEQ WHO 2005 - EDLx0.0	0.0796			pg/l					

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1385520
Reported: 05/09/13 at 09:39 AM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 13119SLC026	Sample number(s): 7034499-7034503 UNSPK: P036179								
Acenaphthene	95	91	48-127	4	30				
Acenaphthylene	88	86	49-121	2	30				
Anthracene	94	87	52-126	8	30				
Benzo(a)anthracene	159*	85	32-135	55*	30				
Benzo(a)pyrene	143*	85	36-138	45*	30				
Benzo(b)fluoranthene	163*	91	26-142	43*	30				
Benzo(e)pyrene	123	86	70-130	31*	30				
Benzo(g,h,i)perylene	74	50	33-141	35*	30				
Benzo(k)fluoranthene	121	88	47-129	25	30				
Butylbenzylphthalate	103	106	59-153	3	30				
Di-n-butylphthalate	101	97	62-154	4	30				
Chrysene	163*	81	29-148	55*	30				
Dibenz(a,h)anthracene	78	65	34-125	17	30				
Diethylphthalate	106	103	76-127	3	30				
Dimethylphthalate	91	89	62-136	3	30				
Bis(2-Ethylhexyl)phthalate	76	63	39-167	10	30				
Fluoranthene	205*	85	47-135	70*	30				
Fluorene	90	89	50-129	1	30				
Indeno(1,2,3-cd)pyrene	87	61	17-136	32*	30				
1-Methylnaphthalene	98	98	50-131	0	30				
2-Methylnaphthalene	98	98	28-144	0	30				
Naphthalene	97	96	31-148	0	30				
N-Nitrosodimethylamine	93	93	48-113	0	30				
Di-n-octylphthalate	108	116	52-162	8	30				
Phenanthrene	124	92	29-142	28	30				
Pyrene	195*	76	26-143	75*	30				
Batch number: 131160002A	Sample number(s): 7034499-7034503 UNSPK: P031213								
PCB-1016	108	102	16-146	6	50				
PCB-1260	114	102	40-134	11	50				
Batch number: 131200001A	Sample number(s): 7034499-7034503 UNSPK: P036179								
EFH (C12-C14)	147*	137*	49-123	4	20				
EFH (C15-C20)	418 (2)	352 (2)	49-123	7	20				
EFH (C21-C30)	1125 (2)	986 (2)	49-123	7	20				
EFH (C30-C40)	406 (2)	755 (2)	49-123	14	20				
EFH (C8-C11)	140*	151*	49-123	4	20				
Batch number: 131220637001	Sample number(s): 7034499-7034503 UNSPK: P036179 BKG: P036179								
Aluminum	1523 (2)	1646 (2)	75-125	2	20	11,400	10,900	5	20
Antimony	57*	57*	75-125	0	20	4.52	3.96 U	200* (1)	20
Arsenic	102	102	75-125	0	20	4.34	3.98	9 (1)	20

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1385520
Reported: 05/09/13 at 09:39 AM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Barium	101	98	75-125	2	20	101	88.6	13	20
Beryllium	106	106	75-125	0	20	0.451 J	0.421 J	7 (1)	20
Boron	101	101	75-125	1	20	15.3	12.8	18 (1)	20
Cadmium	84	84	75-125	0	20	1.16	0.273 J	124* (1)	20
Calcium	275 (2)	-53 (2)	75-125	16	20	7,750	5,970	26*	20
Chromium	110	118	75-125	4	20	15.0	16.5	9	20
Cobalt	95	95	75-125	0	20	7.43	3.86	63* (1)	20
Copper	115	113	75-125	1	20	12.1	11.6	4	20
Iron	1009 (2)	1510 (2)	75-125	3	20	17,500	17,100	2	20
Lead	50*	44*	75-125	3	20	23.2	13.4	54* (1)	20
Lithium	107	106	75-125	1	20	19.7	20.1	2 (1)	20
Magnesium	264 (2)	282 (2)	75-125	1	20	4,380	4,170	5	20
Manganese	37 (2)	41 (2)	75-125	0	20	346	290	18	20
Molybdenum	99	98	75-125	0	20	2.73	0.348 J	155* (1)	20
Nickel	105	106	75-125	0	20	8.69	9.72	11 (1)	20
Phosphorus	-28 (2)	-49 (2)	75-125	3	20	663	462	36*	20
Potassium	129*	135*	75-125	1	20	3,020	2,970	2	20
Sodium	104	102	75-125	1	20	86.7 J	77.4 J	11 (1)	20
Tin	94	94	75-125	0	20	10.6	2.69 J	119* (1)	20
Titanium	315 (2)	362 (2)	75-125	4	20	953	968	2	20
Vanadium	111	111	75-125	0	20	28.6	27.7	3	20
Zinc	107	103	75-125	2	20	69.3	62.6	10	20
Zirconium	98	98	75-125	0	20	2.43 J	2.34 J	4 (1)	20
Batch number: 131220637001A	Sample number(s): 7034499-7034503 UNSPK: P036179 BKG: P036179								
Silver	111	113	75-125	2	20	0.0343 J	0.0481 J	33* (1)	20
Strontium	39 (2)	88 (2)	75-125	9	20	36.6	36.0	2	20
Thallium	109	109	75-125	0	20	0.225	0.245	9 (1)	20
Batch number: 131220637001B	Sample number(s): 7034499-7034503 UNSPK: P036179 BKG: P036179								
Selenium	111	108	75-125	2	20	0.185 J	0.220 J	17 (1)	20
Batch number: 131220638001	Sample number(s): 7034499-7034503 UNSPK: P036179 BKG: P036179								
3a Mercury 7471A	109	101	65-135	9	20	0.0567	0.0552	3 (1)	20
Batch number: 13115002101A	Sample number(s): 7034504 BKG: P034041								
28b. pH (9040B and 9040C)						7.3	7.4	1	3
Batch number: 13116039401A	Sample number(s): 7034499-7034503 BKG: 7034499								
15a pH by 9045C						7.06	7.13	1	3
Batch number: 13121162401A	Sample number(s): 7034499-7034503 BKG: P036179								
14a Moisture Content by 160.3						4.6	6.1	28*	20
Batch number: 13120002	Sample number(s): 7034499-7034503 UNSPK: P031213								
2378-TCDD	92	92	40-135	2	20				
12378-PeCDD	96	96	40-135	2	20				
123478-HxCDD	101	100	40-135	2	20				
123678-HxCDD	98	99	40-135	4	20				
123789-HxCDD	100	99	40-135	2	20				
1234678-HpCDD	96	101	40-135	6	20				

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1385520
Reported: 05/09/13 at 09:39 AM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
OCDD	99	139*	40-135	21*	20				
2378-TCDF	99	97	40-135	1	20				
12378-PeCDF	99	97	40-135	1	20				
23478-PeCDF	100	99	40-135	1	20				
123478-HxCDF	103	101	40-135	1	20				
123678-HxCDF	99	98	40-135	2	20				
123789-HxCDF	102	100	40-135	0	20				
234678-HxCDF	100	99	40-135	1	20				
1234678-HpCDF	99	98	40-135	2	20				
1234789-HpCDF	100	100	40-135	3	20				
OCDF	100	101	40-135	3	20				

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 7a SVOC SIM EPA 8270D
Batch number: 13119SLC026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
7034499	90	104	90
7034500	91	106	98
7034501	91	104	98
7034502	90	109	94
7034503	91	103	95
Blank	89	102	98
LCS	90	102	99
MS	88	97	94
MSD	86	97	96
Limits:	54-129	61-134	55-129

Analysis Name: 7b SVOC SIM EPA 8270D
Batch number: 13119WAI026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
7034504	95	102	92
Blank	99	105	91
LCS	96	105	95
LCSD	96	107	96
Limits:	64-120	62-141	58-134

Analysis Name: 11a TPH by EPA 8015B GRO
Batch number: 13108A16D

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1385520
Reported: 05/09/13 at 09:39 AM

Surrogate Quality Control

	Trifluorotoluene-F
7034499	81
7034503	80
Blank	85
LCS	86
LCSD	80
Limits:	61-122

Analysis Name: 11b TPH by EPA 8015B GRO
Batch number: 13115B20A

	Trifluorotoluene-F
7034498	89
7034504	88
Blank	88
LCS	113
LCSD	112
Limits:	63-135

Analysis Name: 19a PCBs and PCTs 8082A
Batch number: 131160002A

	Tetrachloro-m-xylene	Decachlorobiphenyl
7034499	112	103
7034500	120	107
7034501	126*	105
7034502	97	88
7034503	128*	101
Blank	121*	104
LCS	120	108
LCSD	128*	120
MS	127*	112
MSD	119	106
Limits:	45-120	45-120

Analysis Name: 22b Pesticides by EPA 8081B
Batch number: 131190017A

	Tetrachloro-m-xylene	Decachlorobiphenyl
7034504	102	137*
Blank	94	114
LCS	89	115
LCSD	95	131*
Limits:	60-140	20-120

Analysis Name: 21b PCBs and PCTs 8082A
Batch number: 131190018A

	Tetrachloro-m-xylene	Decachlorobiphenyl
7034504	106	87
Blank	113	89

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1385520
Reported: 05/09/13 at 09:39 AM

Surrogate Quality Control

LCS	124*	65
LCSD	126*	80
Limits:	45-120	45-120

Analysis Name: 10a TPH by EPA 8015B (DRO)
Batch number: 131200001A

	Chlorobenzene	Orthoterphenyl
7034499	86	87
7034500	95	100
7034501	95	98
7034502	88	93
7034503	83	85
Blank	99	104
LCS	93	97
MS	102	85
MSD	95	82
Limits:	37-125	66-123

Analysis Name: 10b TPH by EPA 8015B (DRO)
Batch number: 131200026A

	Chlorobenzene	Orthoterphenyl
7034504	73	67*
Blank	64	69
LCS	75	83
LCSD	78	87
Limits:	45-126	69-119

Analysis Name: 23a Dioxin/Furan by EPA 1613B
Batch number: 13120002

	13C12-2378-TCDD	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF	13C12-234678-HxCDF	13C12-123789-HxCDF
7034499	74	76	83	84	81	82
7034500	75	78	84	87	85	85
7034501	73	79	83	86	81	83
7034502	68	69	78	80	77	82
7034503	70	74	78	83	77	75
Blank	79	84	96	101	96	98
MS	80	85	88	93	87	83
MSD	80	84	89	94	90	88
OPR	70	72	83	89	83	82
Limits:	25-164	21-178	26-152	26-123	28-136	29-147

	13C12-1234678-HpCDF	13C12-1234789-HpCDF	13C12-OCDF	13C12-12378-PeCDD	13C12-123478-HxCDD	13C12-123678-HxCDD
7034499	88	75	74	77	79	82
7034500	90	78	78	79	82	81
7034501	96	77	75	79	82	82
7034502	85	74	73	70	77	77
7034503	98	71	67	76	79	81
Blank	121	87	81	90	94	93

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1385520
Reported: 05/09/13 at 09:39 AM

Surrogate Quality Control

MS	102	80	77	85	86	86
MSD	103	83	80	84	88	92
OPR	105	72	68	75	82	83
Limits:	28-143	26-138	17-157	25-181	32-141	28-130

	13C12-123789-HxCDD	13C12-1234678-HpCDD	13C12-OCDD	13C12-2378-TCDF	13C12-12378-PeCDF
7034499	79	75	76	70	77
7034500	80	78	79	71	80
7034501	80	80	82	72	80
7034502	76	75	74	65	70
7034503	78	78	77	65	76
Blank	92	95	93	78	88
MS	84	86	82	79	88
MSD	88	87	86	78	86
OPR	83	81	79	66	75
Limits:	28-130	23-140	17-157	24-169	24-185

Analysis Name: 17b Dioxin/Furan by EPA 1613B
Batch number: 13122002

	13C12-2378-TCDD	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF	13C12-234678-HxCDF	13C12-123789-HxCDF
7034504	57	57	70	68	67	83
Blank	64	84	74	74	72	71
OPR	59	92	75	74	73	85
Limits:	25-164	21-178	26-152	26-123	28-136	29-147

	13C12-1234678-HpCDF	13C12-1234789-HpCDF	13C12-OCDF	13C12-12378-PeCDD	13C12-123478-HxCDD	13C12-123678-HxCDD
7034504	75	75	78	56	74	71
Blank	71	62	56	85	78	77
OPR	74	76	78	90	78	77
Limits:	28-143	26-138	17-157	25-181	32-141	28-130

	13C12-123789-HxCDD	13C12-1234678-HpCDD	13C12-OCDD	13C12-2378-TCDF	13C12-12378-PeCDF
7034504	71	81	88	60	68
Blank	76	76	79	69	78
OPR	76	80	86	68	95
Limits:	28-130	23-140	17-157	24-169	24-185

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Acct#13013 Gp#1385520 Sample#7034498-504

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 4/24/2013
CarrierName: FedEx
AirbillNo: 7996 0718 1815

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20130424-01
Cooler #: 1
Lab: Lancaster
Lab Phone: 717-556-7259
Lab Address: 2425 New Holland Pike, Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Other Analysis/Notes
TB-042413	4/24/13 08:00	WQ	HCl	3 - 40 mL Vial	10 day																				X												
SL-525-SA7-SB-6.5-7.5	4/24/13 09:10	SO	None	1 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-525-SA7-SB-6.5-7.5	4/24/13 09:10	SO	None	1 - 8 oz glass	10 day	X	X					X		X	X											X											
SL-525-SA7-SB-6.5-7.5	4/24/13 09:10	SO	None	1 - 4 oz glass	10 day													X																			
SL-525-SA7-SB-6.5-7.5	4/24/13 09:10	SO	None	1 - Encore	10 day																				X												
SL-529-SA7-SB-0.0-0.5	4/24/13 10:00	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-529-SA7-SB-0.0-0.5	4/24/13 10:00	SO	None	1 - 4 oz glass	10 day													X																			
SL-528-SA7-SB-0.0-0.5	4/24/13 10:55	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-528-SA7-SB-0.0-0.5	4/24/13 10:55	SO	None	1 - 4 oz glass	10 day													X																			
SL-527-SA7-SB-0.0-0.5	4/24/13 13:15	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-527-SA7-SB-0.0-0.5	4/24/13 13:15	SO	None	1 - 4 oz glass	10 day													X																			
SL-527-SA7-SB-2.5-3.5	4/24/13 14:40	SO	None	2 - 16 oz glass	10 day	X	X					X		X	X											X											
SL-527-SA7-SB-2.5-3.5	4/24/13 14:40	SO	None	1 - 4 oz glass	10 day													X																			
SL-527-SA7-SB-2.5-3.5	4/24/13 14:40	SO	None	1 - Encore	10 day																				X												

Special Instructions:

Sampler: Steven Meyer

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
V. Cotr	4/24/13										
									Bruce Kent	4.25.13	930

acct#13013 Grp# 1385520 Sample# 7034498-504

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 4/24/2013
CarrierName: FedEx
AirbillNo: 7996 0718 1815

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20130424-02
Cooler #: 2
Lab: Lancaster
Lab Phone: 717-556-7259
Lab Address: 2425 New Holland Pike, Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Other Analysis/Notes
EB-042413	4/24/13 15:00	WQ	HNO3 pH<2	1 - 250 mL Poly	10 day	X		X																													
EB-042413	4/24/13 15:00	WQ	None	1 - 250 mL Amber	10 day							X																									
EB-042413	4/24/13 15:00	WQ	None	1 - 1 L Amber	10 day									X																							
EB-042413	4/24/13 15:00	WQ	None	1 - 250 mL Amber	10 day										X																						
EB-042413	4/24/13 15:00	WQ	None	1 - 250 mL Poly	10 day														X																		
EB-042413	4/24/13 15:00	WQ	None	1 - 250 mL Amber	10 day																	X															
EB-042413	4/24/13 15:00	WQ	HCl	3 - 40 mL Vial	10 day																				X												
EB-042413	4/24/13 15:00	WQ	HCl	2 - 1 L Amber	10 day																					X											
EB-042413	4/24/13 15:00	WQ	None	1 - 250 mL Amber	10 day																																extra bottle

Special Instructions:

Sampler: V. Cortez

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
V. Cortez	4/24/13										
										4.25.13	930

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G# 1385520

Environmental Sample Administration Receipt Documentation Log

Client/Project: CDM

Date of Receipt: 4.25.13

Time of Receipt: 930

Source Code: 50-1

Shipping Container Sealed: (YES) NO

Custody Seal Present * : (YES) NO

* Custody seal was intact unless otherwise noted in the discrepancy section

Package: (Chilled) Not Chilled

Temperature of Shipping Containers							
Cooler #	Thermometer ID	Temperature (°C)	Temp Bottle (TB) or Surface Temp (ST)	Wet Ice (WI) or Dry Ice (DI) or Ice Packs (IP)	Ice Present? Y/N	Loose (L) Bagged Ice (B) or NA	Comments
1	2783	1.9	TB	WI	X	B	
2	↓	1.5	↓	↓	↓	↓	
3							
4							
5							
6							

Number of Trip Blanks received NOT listed on chain of custody: 0

Paperwork Discrepancy/Unpacking Problems:

Unpacker Signature/Emp#: [signature] 2299 **Date/Time:** 4.25.13 10:13

Issued by Dept. 6042 Management

2174.06

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	**BMQL**	Below Minimum Quantitation Level
N.D.	none detected	**MPN**	Most Probable Number
TNTC	Too Numerous To Count	**CP Units**	cobalt-chloroplatinate units
IU	International Units	**NTU**	nephelometric turbidity units
umhos/cm	micromhos/cm	**ng**	nanogram(s)
C	degrees Celsius	**F**	degrees Fahrenheit
meq	milliequivalents	**lb.**	pound(s)
g	gram(s)	**kg**	kilogram(s)
µg	microgram(s)	**mg**	milligram(s)
mL	milliliter(s)	**L**	liter(s)
m3	cubic meter(s)	**µL**	microliter(s)
		pg/L	picogram/liter

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

J estimated value – The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	**B**	Value is <CRDL, but ≥IDL
B	Analyte was also detected in the blank	**E**	Estimated due to interference
C	Pesticide result confirmed by GC/MS	**M**	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	**N**	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	**S**	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	**U**	Compound was not detected
P	Concentration difference between primary and confirmation columns >25%	**W**	Post digestion spike out of control limits
U	Compound was not detected	*****	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	**+**	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as “analyze immediately” are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL LANCASTER LABORATORIES BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF LANCASTER LABORATORIES AND (B) WHETHER LANCASTER LABORATORIES HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Lancaster Laboratories which includes any conditions that vary from the Standard Terms and Conditions, and Lancaster hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

May 10, 2013

Project: Phase 3 Subarea 7

Submittal Date: 04/26/2013
Group Number: 1385735
SDG: PH039
PO Number: 1204-002-001-AL
State of Sample Origin: CA

Client Sample Description	Lancaster Labs (LLI) #
SL-507-SA7-SB-0.0-0.5 Soil	7036177
TB-042413 Water	7036178
SL-519-SA7-SB-0.0-0.5 Soil	7036179
SL-519-SA7-SB-0.0-0.5MS Soil	7036180
SL-519-SA7-SB-0.0-0.5MSD Soil	7036181
SL-519-SA7-SB-0.0-0.5DUP Soil	7036182
SL-819-SA7-SB-0.0-0.5 Soil	7036183
SL-519-SA7-SB-2.0-3.0 Soil	7036184
SL-509-SA7-SB-0.0-0.5 Soil	7036185
SL-506-SA7-SB-0.0-0.5 Soil	7036186
SL-508-SA7-SB-0.0-0.5 Soil	7036187

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO	LLI	Attn: Nicole Maljovec
ELECTRONIC COPY TO	Eurofins Lancaster Labs	Attn: Natalie Luciano

Respectfully Submitted,

Nicole L. Maljovec
Principal Specialist Group Leader

(717) 556-7259

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Analysis Report

Sample Description: SL-507-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7036177
LLI Group # 1385735
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/24/2013 15:05 by SM

Submitted: 04/26/2013 09:15
Reported: 05/10/2013 10:53

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL507 SDG#: PH039-01

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.69	1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.35	1
12969	Anthracene	120-12-7	1.7	U	1.7	0.35	1
12969	Benzo(a)anthracene	56-55-3	1.1	J	1.7	0.69	1
12969	Benzo(a)pyrene	50-32-8	1.3	J	1.7	0.69	1
12969	Benzo(b)fluoranthene	205-99-2	2.8		1.7	0.69	1
12969	Benzo(e)pyrene	192-97-2	18	U	18	3.5	1
12969	Benzo(g,h,i)perylene	191-24-2	0.94	J	1.7	0.69	1
12969	Benzo(k)fluoranthene	207-08-9	8.5		1.7	0.69	1
12969	Butylbenzylphthalate	85-68-7	14	J	19	6.2	1
12969	Di-n-butylphthalate	84-74-2	19	U	19	6.2	1
12969	Chrysene	218-01-9	2.3		1.7	0.35	1
12969	Dibenz(a,h)anthracene	53-70-3	1.7	U	1.7	0.69	1
12969	Diethylphthalate	84-66-2	19	U	19	6.2	1
12969	Dimethylphthalate	131-11-3	19	U	19	6.2	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	9.9	J	19	6.2	1
12969	Fluoranthene	206-44-0	3.3		1.7	0.69	1
12969	Fluorene	86-73-7	1.7	U	1.7	0.69	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	0.84	J	1.7	0.69	1
12969	1-Methylnaphthalene	90-12-0	0.84	J	1.7	0.69	1
12969	2-Methylnaphthalene	91-57-6	1.4	J	1.7	0.69	1
12969	Naphthalene	91-20-3	0.97	J	1.7	0.69	1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.69	1
12969	Di-n-octylphthalate	117-84-0	19	U	19	6.2	1
12969	Phenanthrene	85-01-8	1.7	J	1.7	0.69	1
12969	Pyrene	129-00-0	2.3		1.7	0.69	1
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
10592	Aroclor 5432	63496-31-1	34	U	34	10	1
10592	Aroclor 5442	12642-23-8	34	U	34	10	1
10592	Aroclor 5460	11126-42-4	34	U	34	10	1
10592	PCB-1016	12674-11-2	17	U	17	3.4	1
10592	PCB-1221	11104-28-2	17	U	17	5.2	1
10592	PCB-1232	11141-16-5	17	U	17	4.2	1
10592	PCB-1242	53469-21-9	17	U	17	3.4	1
10592	PCB-1248	12672-29-6	17	U	17	3.4	1
10592	PCB-1254	11097-69-1	17	U	17	4.5	1
10592	PCB-1260	11096-82-5	17	U	17	4.0	1
10592	PCB-1262	37324-23-5	17	U	17	3.4	1
10592	PCB-1268	11100-14-4	17	U	17	3.4	1
	Project defined QC acceptance limits are not met. All QC is compliant with the laboratory statistically generated limits.						
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.2	U	5.2	2.1	1
12952	EFH (C15-C20)	n.a.	5.2	U	5.2	2.1	1
12952	EFH (C21-C30)	n.a.	9.1		5.2	2.1	1
12952	EFH (C30-C40)	n.a.	23		10	4.1	1
12952	EFH (C8-C11)	n.a.	5.2	U	5.2	2.1	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-507-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7036177
LLI Group # 1385735
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/24/2013 15:05 by SM

Submitted: 04/26/2013 09:15
Reported: 05/10/2013 10:53

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL507 SDG#: PH039-01

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
	The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.						
Metals		**SW-846 6010C**	**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	11,500		40.3	7.76	1
06944	Antimony	7440-36-0	4.03	U	4.03	0.504	1
06935	Arsenic	7440-38-2	4.72		4.03	0.332	1
06946	Barium	7440-39-3	68.2		1.01	0.0332	1
06947	Beryllium	7440-41-7	0.526	J	1.01	0.0675	1
07914	Boron	7440-42-8	10.5		10.1	0.836	1
06949	Cadmium	7440-43-9	0.256	J	1.01	0.0332	1
01650	Calcium	7440-70-2	3,810		20.1	4.05	1
06951	Chromium	7440-47-3	17.1		3.02	0.0886	1
06952	Cobalt	7440-48-4	4.48		1.01	0.0906	1
06953	Copper	7440-50-8	11.5		2.01	0.181	1
01654	Iron	7439-89-6	19,700		40.3	3.83	1
06955	Lead	7439-92-1	9.87		3.02	0.473	1
01656	Lithium	7439-93-2	22.4		4.0	0.55	1
01657	Magnesium	7439-95-4	4,470		10.1	1.74	1
06958	Manganese	7439-96-5	278		1.01	0.0836	1
06960	Molybdenum	7439-98-7	0.297	J	2.01	0.171	1
06961	Nickel	7440-02-0	9.69		2.01	0.111	1
10145	Phosphorus	7723-14-0	382		10.1	0.514	1
01662	Potassium	7440-09-7	3,260		101	13.6	1
01667	Sodium	7440-23-5	65.0	J	101	16.8	1
06969	Tin	7440-31-5	2.82	J	10.1	0.222	1
06970	Titanium	7440-32-6	1,030		1.01	0.171	1
06971	Vanadium	7440-62-2	32.7		1.01	0.111	1
06972	Zinc	7440-66-6	54.3		4.03	0.201	1
10146	Zirconium	7440-67-7	2.05	J	5.04	0.836	1
		SW-846 6020A	**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.159	J	0.403	0.101	2
06142	Silver	7440-22-4	0.0213	J	0.201	0.0201	2
06144	Strontium	7440-24-6	22.4		0.403	0.0342	2
06145	Thallium	7440-28-0	0.286		0.201	0.0302	2
		SW-846 7471B	**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0300		0.0168	0.0101	1
Wet Chemistry		**SW-846 9045D modified**	**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045C	n.a.	7.01		0.0100	0.0100	1
	The pH was measured in water at 21.4 C.						
Wet Chemistry		**EPA 160.3 modified**	**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	3.6		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-507-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7036177
LLI Group # 1385735
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/24/2013 15:05 by SM

Submitted: 04/26/2013 09:15
Reported: 05/10/2013 10:53

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL507 SDG#: PH039-01

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	1.01	U	1.01	0.0275	1
11031	12378-PeCDD	40321-76-4	0.177	JBQ	5.05	0.0438	1
11031	123478-HxCDD	39227-28-6	0.144	JBQ	5.05	0.0536	1
11031	123678-HxCDD	57653-85-7	0.488	JQ	5.05	0.0583	1
11031	123789-HxCDD	19408-74-3	0.374	JQ	5.05	0.0492	1
11031	1234678-HpCDD	35822-46-9	12.9	B	5.05	0.0542	1
11031	OCDD	3268-87-9	123	B	10.1	0.0477	1
11031	2378-TCDF	51207-31-9	0.224	JQ	1.01	0.0501	1
11031	12378-PeCDF	57117-41-6	0.304	JB	5.05	0.0337	1
11031	23478-PeCDF	57117-31-4	0.288	JBQ	5.05	0.0331	1
11031	123478-HxCDF	70648-26-9	0.248	JBQ	5.05	0.0419	1
11031	123678-HxCDF	57117-44-9	0.169	JBQ	5.05	0.0390	1
11031	123789-HxCDF	72918-21-9	5.05	U	5.05	0.0322	1
11031	234678-HxCDF	60851-34-5	0.167	JBQ	5.05	0.0366	1
11031	1234678-HpCDF	67562-39-4	1.80	JB	5.05	0.0499	1
11031	1234789-HpCDF	55673-89-7	0.121	JBQ	5.05	0.0683	1
11031	OCDF	39001-02-0	4.63	JB	10.1	0.0572	1
Toxic Equivalents	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.195				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	77	25 - 164
13C12-12378-PeCDD	51	25 - 181
13C12-123478-HxCDD	51	32 - 141
13C12-123678-HxCDD	51	28 - 130
13C12-123789-HxCDD	55	28 - 130
13C12-1234678-HpCDD	48	23 - 140
13C12-OCDD	49	17 - 157
13C12-2378-TCDF	60	24 - 169
13C12-12378-PeCDF	53	24 - 185
13C12-23478-PeCDF	51	21 - 178
13C12-123478-HxCDF	51	26 - 152
13C12-123678-HxCDF	53	26 - 123
13C12-234678-HxCDF	54	28 - 136
13C12-123789-HxCDF	67	29 - 147
13C12-1234678-HpCDF	54	28 - 143
13C12-1234789-HpCDF	44	26 - 138
13C12-OCDF	40	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-507-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7036177
LLI Group # 1385735
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/24/2013 15:05 by SM

Submitted: 04/26/2013 09:15
Reported: 05/10/2013 10:53

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL507 SDG#: PH039-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-507-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7036177
LLI Group # 1385735
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/24/2013 15:05 by SM

Submitted: 04/26/2013 09:15
Reported: 05/10/2013 10:53

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL507 SDG#: PH039-01

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13119SLC026	05/01/2013	14:38	Joseph M Gambler	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	13119SLC026	04/29/2013	14:00	David S Schrum	1
10592	19a PCBs and PCTs 8082A	SW-846 8082A	1	131200017A	05/03/2013	01:58	Monica M Souders	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	131200017A	05/01/2013	09:00	Olivia Arosemena	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	131200001A	05/02/2013	05:34	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	131200001A	04/30/2013	18:10	Sally L Appleyard	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13123001	05/06/2013	23:08	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13123001	05/03/2013	12:00	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010C	1	131220637001	05/03/2013	12:14	Joanne M Gates	1
06944	Antimony	SW-846 6010C	1	131220637001	05/03/2013	12:14	Joanne M Gates	1
06935	Arsenic	SW-846 6010C	1	131220637001	05/03/2013	12:14	Joanne M Gates	1
06946	Barium	SW-846 6010C	1	131220637001	05/03/2013	12:14	Joanne M Gates	1
06947	Beryllium	SW-846 6010C	1	131220637001	05/03/2013	12:14	Joanne M Gates	1
07914	Boron	SW-846 6010C	1	131220637001	05/03/2013	12:14	Joanne M Gates	1
06949	Cadmium	SW-846 6010C	1	131220637001	05/03/2013	12:14	Joanne M Gates	1
01650	Calcium	SW-846 6010C	1	131220637001	05/03/2013	12:14	Joanne M Gates	1
06951	Chromium	SW-846 6010C	1	131220637001	05/03/2013	12:14	Joanne M Gates	1
06952	Cobalt	SW-846 6010C	1	131220637001	05/03/2013	12:14	Joanne M Gates	1
06953	Copper	SW-846 6010C	1	131220637001	05/03/2013	12:14	Joanne M Gates	1
01654	Iron	SW-846 6010C	1	131220637001	05/03/2013	12:14	Joanne M Gates	1
06955	Lead	SW-846 6010C	1	131220637001	05/03/2013	12:14	Joanne M Gates	1
01656	Lithium	SW-846 6010C	1	131220637001	05/03/2013	12:14	Joanne M Gates	1
01657	Magnesium	SW-846 6010C	1	131220637001	05/03/2013	12:14	Joanne M Gates	1
06958	Manganese	SW-846 6010C	1	131220637001	05/03/2013	12:14	Joanne M Gates	1
06960	Molybdenum	SW-846 6010C	1	131220637001	05/03/2013	12:14	Joanne M Gates	1
06961	Nickel	SW-846 6010C	1	131220637001	05/03/2013	12:14	Joanne M Gates	1
10145	Phosphorus	SW-846 6010C	1	131220637001	05/03/2013	12:14	Joanne M Gates	1
01662	Potassium	SW-846 6010C	1	131220637001	05/03/2013	12:14	Joanne M Gates	1
01667	Sodium	SW-846 6010C	1	131220637001	05/03/2013	12:14	Joanne M Gates	1
06969	Tin	SW-846 6010C	1	131220637001	05/03/2013	12:14	Joanne M Gates	1
06970	Titanium	SW-846 6010C	1	131220637001	05/03/2013	12:14	Joanne M Gates	1
06971	Vanadium	SW-846 6010C	1	131220637001	05/03/2013	12:14	Joanne M Gates	1
06972	Zinc	SW-846 6010C	1	131220637001	05/03/2013	12:14	Joanne M Gates	1
10146	Zirconium	SW-846 6010C	1	131220637001	05/03/2013	12:14	Joanne M Gates	1
06141	Selenium	SW-846 6020A	1	131220637001B	05/06/2013	11:31	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	131220637001A	05/06/2013	11:31	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	131220637001A	05/06/2013	11:31	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	131220637001A	05/06/2013	11:31	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-507-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7036177
LLI Group # 1385735
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/24/2013 15:05 by SM

Submitted: 04/26/2013 09:15
Reported: 05/10/2013 10:53

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL507 SDG#: PH039-01

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00159	3a Mercury 7471A	SW-846 7471B	1	131220638001	05/03/2013 09:43	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	131220637001	05/02/2013 23:16	Annamaria Stipkovits	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	131220638001	05/03/2013 02:45	Annamaria Stipkovits	1
00394	15a pH by 9045C	SW-846 9045D modified	1	13116039402A	04/26/2013 20:25	Clayton C Litchmore	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13121162401A	05/01/2013 22:00	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: TB-042413 Water
SSFL Phase 3 Subarea 7

LLI Sample # WW 7036178
LLI Group # 1385735
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/24/2013 08:00 by SM

Submitted: 04/26/2013 09:15
Reported: 05/10/2013 10:53

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

STB24 SDG#: PH039-02TB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC Volatiles	**TPH GRO SW-8015B**		**ug/l**		**ug/l**	**ug/l**	
08229	TPH-GRO S.CA water C5-C12	n.a.	50	U	50	20	1

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08229	11b TPH by EPA 8015B GRO	TPH GRO SW-8015B	1	13121A20A	05/01/2013 12:09	Catherine J Schwarz	1
01146	GC VOA Water Prep	SW-846 5030B	1	13121A20A	05/01/2013 12:09	Catherine J Schwarz	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-519-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7036179
LLI Group # 1385735
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/25/2013 08:45 by SM

Submitted: 04/26/2013 09:15
Reported: 05/10/2013 10:53

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL519 SDG#: PH039-03BKG

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.68	1
12969	Acenaphthylene	208-96-8	0.39	J	1.7	0.34	1
12969	Anthracene	120-12-7	0.52	J	1.7	0.34	1
12969	Benzo(a)anthracene	56-55-3	4.5		1.7	0.68	1
12969	Benzo(a)pyrene	50-32-8	5.0		1.7	0.68	1
12969	Benzo(b)fluoranthene	205-99-2	13		1.7	0.68	1
12969	Benzo(e)pyrene	192-97-2	5.5	J	17	3.4	1
12969	Benzo(g,h,i)perylene	191-24-2	2.8		1.7	0.68	1
12969	Benzo(k)fluoranthene	207-08-9	9.1		1.7	0.68	1
12969	Butylbenzylphthalate	85-68-7	18	U	18	6.1	1
12969	Di-n-butylphthalate	84-74-2	18	U	18	6.1	1
12969	Chrysene	218-01-9	9.0		1.7	0.34	1
12969	Dibenz(a,h)anthracene	53-70-3	1.0	J	1.7	0.68	1
12969	Diethylphthalate	84-66-2	18	U	18	6.1	1
12969	Dimethylphthalate	131-11-3	18	U	18	6.1	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	21		18	6.1	1
12969	Fluoranthene	206-44-0	9.1		1.7	0.68	1
12969	Fluorene	86-73-7	3.9		1.7	0.68	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	2.5		1.7	0.68	1
12969	1-Methylnaphthalene	90-12-0	0.88	J	1.7	0.68	1
12969	2-Methylnaphthalene	91-57-6	1.5	J	1.7	0.68	1
12969	Naphthalene	91-20-3	1.5	J	1.7	0.68	1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.68	1
12969	Di-n-octylphthalate	117-84-0	18	U	18	6.1	1
12969	Phenanthrene	85-01-8	3.1		1.7	0.68	1
12969	Pyrene	129-00-0	7.9		1.7	0.68	1
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
10592	Aroclor 5432	63496-31-1	33	U	33	10	1
10592	Aroclor 5442	12642-23-8	33	U	33	10	1
10592	Aroclor 5460	11126-42-4	33	U	33	10	1
10592	PCB-1016	12674-11-2	17	U	17	3.3	1
10592	PCB-1221	11104-28-2	17	U	17	5.1	1
10592	PCB-1232	11141-16-5	17	U	17	4.1	1
10592	PCB-1242	53469-21-9	17	U	17	3.3	1
10592	PCB-1248	12672-29-6	17	U	17	3.3	1
10592	PCB-1254	11097-69-1	7.0	J	17	4.4	1
10592	PCB-1260	11096-82-5	17	U	17	3.9	1
10592	PCB-1262	37324-23-5	17	U	17	3.3	1
10592	PCB-1268	11100-14-4	17	U	17	3.3	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	2.5	J	5.1	2.0	1
12952	EFH (C15-C20)	n.a.	14		5.1	2.0	1
12952	EFH (C21-C30)	n.a.	41		5.1	2.0	1
12952	EFH (C30-C40)	n.a.	95		10	4.1	1
12952	EFH (C8-C11)	n.a.	3.0	J	5.1	2.0	1

The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-519-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7036179
LLI Group # 1385735
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/25/2013 08:45 by SM

Submitted: 04/26/2013 09:15
Reported: 05/10/2013 10:53

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL519 SDG#: PH039-03BKG

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	11,700		40.6	7.82	1
06944	Antimony	7440-36-0	4.63		4.06	0.507	1
06935	Arsenic	7440-38-2	4.45		4.06	0.335	1
06946	Barium	7440-39-3	104		1.01	0.0335	1
06947	Beryllium	7440-41-7	0.463	J	1.01	0.0680	1
07914	Boron	7440-42-8	15.6		10.1	0.842	1
06949	Cadmium	7440-43-9	1.19		1.01	0.0335	1
01650	Calcium	7440-70-2	7,940		20.3	4.08	1
06951	Chromium	7440-47-3	15.4		3.04	0.0893	1
06952	Cobalt	7440-48-4	7.61		1.01	0.0913	1
06953	Copper	7440-50-8	12.3		2.03	0.183	1
01654	Iron	7439-89-6	17,900		40.6	3.85	1
06955	Lead	7439-92-1	23.8		3.04	0.477	1
01656	Lithium	7439-93-2	20.2		4.1	0.56	1
01657	Magnesium	7439-95-4	4,490		10.1	1.75	1
06958	Manganese	7439-96-5	355		1.01	0.0842	1
06960	Molybdenum	7439-98-7	2.79		2.03	0.172	1
06961	Nickel	7440-02-0	8.90		2.03	0.112	1
10145	Phosphorus	7723-14-0	679		10.1	0.517	1
01662	Potassium	7440-09-7	3,090		101	13.7	1
01667	Sodium	7440-23-5	88.9	J	101	16.9	1
06969	Tin	7440-31-5	10.9		10.1	0.223	1
06970	Titanium	7440-32-6	977		1.01	0.172	1
06971	Vanadium	7440-62-2	29.3		1.01	0.112	1
06972	Zinc	7440-66-6	71.0		4.06	0.203	1
10146	Zirconium	7440-67-7	2.49	J	5.07	0.842	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.189	J	0.406	0.101	2
06142	Silver	7440-22-4	0.0351	J	0.203	0.0203	2
06144	Strontium	7440-24-6	37.5		0.406	0.0345	2
06145	Thallium	7440-28-0	0.230		0.203	0.0304	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0581		0.0167	0.0100	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045C	n.a.	7.32		0.0100	0.0100	1
	The pH was measured in water at 21.3 C.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	2.4		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-519-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7036179
LLI Group # 1385735
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/25/2013 08:45 by SM

Submitted: 04/26/2013 09:15
Reported: 05/10/2013 10:53

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL519 SDG#: PH039-03BKG

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0651	JQ	1.02	0.0276	1
11031	12378-PeCDD	40321-76-4	0.205	JBQ	5.10	0.0451	1
11031	123478-HxCDD	39227-28-6	0.276	JBQ	5.10	0.0546	1
11031	123678-HxCDD	57653-85-7	1.02	J	5.10	0.0589	1
11031	123789-HxCDD	19408-74-3	0.691	J	5.10	0.0528	1
11031	1234678-HpCDD	35822-46-9	25.2	B	5.10	0.0641	1
11031	OCDD	3268-87-9	270	B	10.2	0.0500	1
11031	2378-TCDF	51207-31-9	0.365	JQ	1.02	0.0671	1
11031	12378-PeCDF	57117-41-6	0.711	JB	5.10	0.0442	1
11031	23478-PeCDF	57117-31-4	0.495	JBQ	5.10	0.0427	1
11031	123478-HxCDF	70648-26-9	0.486	JB	5.10	0.0371	1
11031	123678-HxCDF	57117-44-9	0.299	JBQ	5.10	0.0345	1
11031	123789-HxCDF	72918-21-9	0.114	JBQ	5.10	0.0310	1
11031	234678-HxCDF	60851-34-5	0.303	JB	5.10	0.0353	1
11031	1234678-HpCDF	67562-39-4	2.91	JB	5.10	0.0437	1
11031	1234789-HpCDF	55673-89-7	0.344	JB	5.10	0.0554	1
11031	OCDF	39001-02-0	7.75	JB	10.2	0.0513	1
Toxic Equivalents	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.639				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	80	25 - 164
13C12-12378-PeCDD	56	25 - 181
13C12-123478-HxCDD	57	32 - 141
13C12-123678-HxCDD	55	28 - 130
13C12-123789-HxCDD	58	28 - 130
13C12-1234678-HpCDD	54	23 - 140
13C12-OCDD	52	17 - 157
13C12-2378-TCDF	62	24 - 169
13C12-12378-PeCDF	58	24 - 185
13C12-23478-PeCDF	56	21 - 178
13C12-123478-HxCDF	57	26 - 152
13C12-123678-HxCDF	59	26 - 123
13C12-234678-HxCDF	59	28 - 136
13C12-123789-HxCDF	75	29 - 147
13C12-1234678-HpCDF	57	28 - 143
13C12-1234789-HpCDF	50	26 - 138
13C12-OCDF	46	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration

*=This limit was used in the evaluation of the final result

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Analysis Report

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Sample Description: SL-519-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7036179
LLI Group # 1385735
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/25/2013 08:45 by SM

Submitted: 04/26/2013 09:15
Reported: 05/10/2013 10:53

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL519 SDG#: PH039-03BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-519-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7036179
LLI Group # 1385735
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/25/2013 08:45 by SM

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CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL519 SDG#: PH039-03BKG

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13119SLC026	05/01/2013	10:28	Joseph M Gambler	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	13119SLC026	04/29/2013	14:00	David S Schrum	1
10592	19a PCBs and PCTs 8082A	SW-846 8082A	1	131200017A	05/03/2013	02:17	Monica M Souders	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	131200017A	05/01/2013	09:00	Olivia Arosemena	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	131200001A	05/02/2013	06:16	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	131200001A	04/30/2013	18:10	Sally L Appleyard	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13123001	05/07/2013	00:05	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13123001	05/03/2013	12:00	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010C	1	131220637001	05/03/2013	11:07	Joanne M Gates	1
06944	Antimony	SW-846 6010C	1	131220637001	05/03/2013	11:07	Joanne M Gates	1
06935	Arsenic	SW-846 6010C	1	131220637001	05/03/2013	17:36	Katlin N Cataldi	1
06946	Barium	SW-846 6010C	1	131220637001	05/03/2013	11:07	Joanne M Gates	1
06947	Beryllium	SW-846 6010C	1	131220637001	05/03/2013	11:07	Joanne M Gates	1
07914	Boron	SW-846 6010C	1	131220637001	05/03/2013	11:07	Joanne M Gates	1
06949	Cadmium	SW-846 6010C	1	131220637001	05/03/2013	11:07	Joanne M Gates	1
01650	Calcium	SW-846 6010C	1	131220637001	05/03/2013	11:07	Joanne M Gates	1
06951	Chromium	SW-846 6010C	1	131220637001	05/03/2013	11:07	Joanne M Gates	1
06952	Cobalt	SW-846 6010C	1	131220637001	05/03/2013	11:07	Joanne M Gates	1
06953	Copper	SW-846 6010C	1	131220637001	05/03/2013	11:07	Joanne M Gates	1
01654	Iron	SW-846 6010C	1	131220637001	05/03/2013	11:07	Joanne M Gates	1
06955	Lead	SW-846 6010C	1	131220637001	05/03/2013	11:07	Joanne M Gates	1
01656	Lithium	SW-846 6010C	1	131220637001	05/03/2013	11:07	Joanne M Gates	1
01657	Magnesium	SW-846 6010C	1	131220637001	05/03/2013	11:07	Joanne M Gates	1
06958	Manganese	SW-846 6010C	1	131220637001	05/03/2013	11:07	Joanne M Gates	1
06960	Molybdenum	SW-846 6010C	1	131220637001	05/03/2013	11:07	Joanne M Gates	1
06961	Nickel	SW-846 6010C	1	131220637001	05/03/2013	11:07	Joanne M Gates	1
10145	Phosphorus	SW-846 6010C	1	131220637001	05/03/2013	11:07	Joanne M Gates	1
01662	Potassium	SW-846 6010C	1	131220637001	05/03/2013	11:07	Joanne M Gates	1
01667	Sodium	SW-846 6010C	1	131220637001	05/03/2013	11:07	Joanne M Gates	1
06969	Tin	SW-846 6010C	1	131220637001	05/03/2013	11:07	Joanne M Gates	1
06970	Titanium	SW-846 6010C	1	131220637001	05/03/2013	11:07	Joanne M Gates	1
06971	Vanadium	SW-846 6010C	1	131220637001	05/03/2013	11:07	Joanne M Gates	1
06972	Zinc	SW-846 6010C	1	131220637001	05/03/2013	11:07	Joanne M Gates	1
10146	Zirconium	SW-846 6010C	1	131220637001	05/03/2013	11:07	Joanne M Gates	1
06141	Selenium	SW-846 6020A	1	131220637001B	05/06/2013	10:50	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	131220637001A	05/06/2013	10:50	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	131220637001A	05/06/2013	10:50	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	131220637001A	05/06/2013	10:50	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-519-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7036179
LLI Group # 1385735
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/25/2013 08:45 by SM

Submitted: 04/26/2013 09:15
Reported: 05/10/2013 10:53

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL519 SDG#: PH039-03BKG

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00159	3a Mercury 7471A	SW-846 7471B	1	131220638001	05/03/2013 09:45	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	131220637001	05/02/2013 23:16	Annamaria Stipkovits	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	131220638001	05/03/2013 02:45	Annamaria Stipkovits	1
00394	15a pH by 9045C	SW-846 9045D modified	1	13116039402A	04/26/2013 20:25	Clayton C Litchmore	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	3	13127162401A	05/07/2013 08:10	William C Schwebel	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-519-SA7-SB-0.0-0.5MS Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7036180
LLI Group # 1385735
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/25/2013 08:45 by SM

Submitted: 04/26/2013 09:15
Reported: 05/10/2013 10:53

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL519 SDG#: PH039-03MS

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	32		1.7	0.68	1
12969	Acenaphthylene	208-96-8	30		1.7	0.34	1
12969	Anthracene	120-12-7	33		1.7	0.34	1
12969	Benzo(a)anthracene	56-55-3	59		1.7	0.68	1
12969	Benzo(a)pyrene	50-32-8	54		1.7	0.68	1
12969	Benzo(b)fluoranthene	205-99-2	69		1.7	0.68	1
12969	Benzo(e)pyrene	192-97-2	48		17	3.4	1
12969	Benzo(g,h,i)perylene	191-24-2	28		1.7	0.68	1
12969	Benzo(k)fluoranthene	207-08-9	51		1.7	0.68	1
12969	Butylbenzylphthalate	85-68-7	35		18	6.1	1
12969	Di-n-butylphthalate	84-74-2	34		18	6.1	1
12969	Chrysene	218-01-9	65		1.7	0.34	1
12969	Dibenz(a,h)anthracene	53-70-3	28		1.7	0.68	1
12969	Diethylphthalate	84-66-2	36		18	6.1	1
12969	Dimethylphthalate	131-11-3	31		18	6.1	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	47		18	6.1	1
12969	Fluoranthene	206-44-0	79		1.7	0.68	1
12969	Fluorene	86-73-7	35		1.7	0.68	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	32		1.7	0.68	1
12969	1-Methylnaphthalene	90-12-0	34		1.7	0.68	1
12969	2-Methylnaphthalene	91-57-6	35		1.7	0.68	1
12969	Naphthalene	91-20-3	34		1.7	0.68	1
12969	N-Nitrosodimethylamine	62-75-9	32		1.7	0.68	1
12969	Di-n-octylphthalate	117-84-0	37		18	6.1	1
12969	Phenanthrene	85-01-8	45		1.7	0.68	1
12969	Pyrene	129-00-0	75		1.7	0.68	1
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
10592	Aroclor 5432	63496-31-1	33	U	33	10	1
10592	Aroclor 5442	12642-23-8	33	U	33	10	1
10592	Aroclor 5460	11126-42-4	33	U	33	10	1
10592	PCB-1016	12674-11-2	160		17	3.3	1
10592	PCB-1221	11104-28-2	17	U	17	5.1	1
10592	PCB-1232	11141-16-5	17	U	17	4.1	1
10592	PCB-1242	53469-21-9	17	U	17	3.3	1
10592	PCB-1248	12672-29-6	17	U	17	3.3	1
10592	PCB-1254	11097-69-1	38		17	4.4	1
10592	PCB-1260	11096-82-5	150		17	3.9	1
10592	PCB-1262	37324-23-5	17	U	17	3.3	1
10592	PCB-1268	11100-14-4	17	U	17	3.3	1
	Project defined QC acceptance limits are not met. All QC is compliant with the laboratory statistically generated limits.						
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.0	J	5.1	2.0	1
12952	EFH (C15-C20)	n.a.	25		5.1	2.0	1
12952	EFH (C21-C30)	n.a.	89		5.1	2.0	1
12952	EFH (C30-C40)	n.a.	120		10	4.1	1
12952	EFH (C8-C11)	n.a.	5.4		5.1	2.0	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-519-SA7-SB-0.0-0.5MS Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7036180
LLI Group # 1385735
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/25/2013 08:45 by SM

Submitted: 04/26/2013 09:15
Reported: 05/10/2013 10:53

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL519 SDG#: PH039-03MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.						
Metals		**SW-846 6010C**	**mg/kg**	**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	14,800	40.6	7.82	1
06944	Antimony	7440-36-0	33.6	4.06	0.507	1
06935	Arsenic	7440-38-2	20.0	4.06	0.335	1
06946	Barium	7440-39-3	308	1.01	0.0335	1
06947	Beryllium	7440-41-7	5.83	1.01	0.0680	1
07914	Boron	7440-42-8	221	10.1	0.842	1
06949	Cadmium	7440-43-9	5.45	1.01	0.0335	1
01650	Calcium	7440-70-2	9,050	20.3	4.08	1
06951	Chromium	7440-47-3	37.7	3.04	0.0893	1
06952	Cobalt	7440-48-4	55.8	1.01	0.0913	1
06953	Copper	7440-50-8	41.6	2.03	0.183	1
01654	Iron	7439-89-6	18,900	40.6	3.85	1
06955	Lead	7439-92-1	31.4	3.04	0.477	1
01656	Lithium	7439-93-2	129	4.1	0.56	1
01657	Magnesium	7439-95-4	5,020	10.1	1.75	1
06958	Manganese	7439-96-5	374	1.01	0.0842	1
06960	Molybdenum	7439-98-7	203	2.03	0.172	1
06961	Nickel	7440-02-0	62.3	2.03	0.112	1
10145	Phosphorus	7723-14-0	651	10.1	0.517	1
01662	Potassium	7440-09-7	4,400	101	13.7	1
01667	Sodium	7440-23-5	1,140	101	16.9	1
06969	Tin	7440-31-5	394	10.1	0.223	1
06970	Titanium	7440-32-6	1,300	1.01	0.172	1
06971	Vanadium	7440-62-2	85.4	1.01	0.112	1
06972	Zinc	7440-66-6	125	4.06	0.203	1
10146	Zirconium	7440-67-7	102	5.07	0.842	1
		SW-846 6020A	**mg/kg**	**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	2.43	0.406	0.101	2
06142	Silver	7440-22-4	11.3	0.203	0.0203	2
06144	Strontium	7440-24-6	40.7	0.406	0.0345	2
06145	Thallium	7440-28-0	0.672	0.203	0.0304	2
		SW-846 7471B	**mg/kg**	**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.242	0.0168	0.0101	1
Wet Chemistry		**EPA 160.3 modified**	**%**	**%**	**%**	
11625	14a Moisture Content by 160.3	n.a.	2.4	0.10	0.10	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-519-SA7-SB-0.0-0.5MS Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7036180
LLI Group # 1385735
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/25/2013 08:45 by SM

Submitted: 04/26/2013 09:15
Reported: 05/10/2013 10:53

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
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SL519 SDG#: PH039-03MS

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	17.8		1.02	0.0450	1
11031	12378-PeCDD	40321-76-4	93.7	B	5.10	0.0593	1
11031	123478-HxCDD	39227-28-6	102	B	5.10	0.0629	1
11031	123678-HxCDD	57653-85-7	97.2		5.10	0.0701	1
11031	123789-HxCDD	19408-74-3	100		5.10	0.0623	1
11031	1234678-HpCDD	35822-46-9	110	B	5.10	0.0960	1
11031	OCDD	3268-87-9	331	B	10.2	0.0542	1
11031	2378-TCDF	51207-31-9	19.3		1.02	0.0639	1
11031	12378-PeCDF	57117-41-6	99.8	B	5.10	0.0477	1
11031	23478-PeCDF	57117-31-4	100	B	5.10	0.0450	1
11031	123478-HxCDF	70648-26-9	103	B	5.10	0.0778	1
11031	123678-HxCDF	57117-44-9	101	B	5.10	0.0730	1
11031	123789-HxCDF	72918-21-9	100	B	5.10	0.0578	1
11031	234678-HxCDF	60851-34-5	101	B	5.10	0.0687	1
11031	1234678-HpCDF	67562-39-4	101	B	5.10	0.0788	1
11031	1234789-HpCDF	55673-89-7	99.2	B	5.10	0.0978	1
11031	OCDF	39001-02-0	203	B	10.2	0.0716	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	81	25 - 164
13C12-12378-PeCDD	53	25 - 181
13C12-123478-HxCDD	55	32 - 141
13C12-123678-HxCDD	54	28 - 130
13C12-123789-HxCDD	58	28 - 130
13C12-1234678-HpCDD	52	23 - 140
13C12-OCDD	53	17 - 157
13C12-2378-TCDF	62	24 - 169
13C12-12378-PeCDF	54	24 - 185
13C12-23478-PeCDF	54	21 - 178
13C12-123478-HxCDF	55	26 - 152
13C12-123678-HxCDF	56	26 - 123
13C12-234678-HxCDF	58	28 - 136
13C12-123789-HxCDF	77	29 - 147
13C12-1234678-HpCDF	54	28 - 143
13C12-1234789-HpCDF	50	26 - 138
13C12-OCDF	47	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present
S Saturation of detection signal

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-519-SA7-SB-0.0-0.5MS Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7036180
LLI Group # 1385735
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/25/2013 08:45 by SM

Submitted: 04/26/2013 09:15
Reported: 05/10/2013 10:53

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL519 SDG#: PH039-03MS

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13119SLC026	05/01/2013	10:59	Joseph M Gambler	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	13119SLC026	04/29/2013	14:00	David S Schrum	1
10592	19a PCBs and PCTs 8082A	SW-846 8082A	1	131200017A	05/03/2013	02:35	Monica M Souders	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	131200017A	05/01/2013	09:00	Olivia Arosemena	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	131200001A	05/02/2013	06:36	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	131200001A	04/30/2013	18:10	Sally L Appleyard	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13123001	05/07/2013	01:01	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13123001	05/03/2013	12:00	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010C	1	131220637001	05/03/2013	11:21	Joanne M Gates	1
06944	Antimony	SW-846 6010C	1	131220637001	05/03/2013	11:21	Joanne M Gates	1
06935	Arsenic	SW-846 6010C	1	131220637001	05/03/2013	11:21	Joanne M Gates	1
06946	Barium	SW-846 6010C	1	131220637001	05/03/2013	11:21	Joanne M Gates	1
06947	Beryllium	SW-846 6010C	1	131220637001	05/03/2013	11:21	Joanne M Gates	1
07914	Boron	SW-846 6010C	1	131220637001	05/03/2013	11:21	Joanne M Gates	1
06949	Cadmium	SW-846 6010C	1	131220637001	05/03/2013	11:21	Joanne M Gates	1
01650	Calcium	SW-846 6010C	1	131220637001	05/03/2013	11:21	Joanne M Gates	1
06951	Chromium	SW-846 6010C	1	131220637001	05/03/2013	11:21	Joanne M Gates	1
06952	Cobalt	SW-846 6010C	1	131220637001	05/03/2013	11:21	Joanne M Gates	1
06953	Copper	SW-846 6010C	1	131220637001	05/03/2013	11:21	Joanne M Gates	1
01654	Iron	SW-846 6010C	1	131220637001	05/03/2013	11:21	Joanne M Gates	1
06955	Lead	SW-846 6010C	1	131220637001	05/03/2013	11:21	Joanne M Gates	1
01656	Lithium	SW-846 6010C	1	131220637001	05/03/2013	11:21	Joanne M Gates	1
01657	Magnesium	SW-846 6010C	1	131220637001	05/03/2013	11:21	Joanne M Gates	1
06958	Manganese	SW-846 6010C	1	131220637001	05/03/2013	11:21	Joanne M Gates	1
06960	Molybdenum	SW-846 6010C	1	131220637001	05/03/2013	11:21	Joanne M Gates	1
06961	Nickel	SW-846 6010C	1	131220637001	05/03/2013	11:21	Joanne M Gates	1
10145	Phosphorus	SW-846 6010C	1	131220637001	05/03/2013	11:21	Joanne M Gates	1
01662	Potassium	SW-846 6010C	1	131220637001	05/03/2013	11:21	Joanne M Gates	1
01667	Sodium	SW-846 6010C	1	131220637001	05/03/2013	11:21	Joanne M Gates	1
06969	Tin	SW-846 6010C	1	131220637001	05/03/2013	11:21	Joanne M Gates	1
06970	Titanium	SW-846 6010C	1	131220637001	05/03/2013	11:21	Joanne M Gates	1
06971	Vanadium	SW-846 6010C	1	131220637001	05/03/2013	11:21	Joanne M Gates	1
06972	Zinc	SW-846 6010C	1	131220637001	05/03/2013	11:21	Joanne M Gates	1
10146	Zirconium	SW-846 6010C	1	131220637001	05/03/2013	11:21	Joanne M Gates	1
06141	Selenium	SW-846 6020A	1	131220637001B	05/06/2013	10:58	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	131220637001A	05/06/2013	10:58	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	131220637001A	05/06/2013	10:58	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	131220637001A	05/06/2013	10:58	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-519-SA7-SB-0.0-0.5MS Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7036180
LLI Group # 1385735
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/25/2013 08:45 by SM

Submitted: 04/26/2013 09:15
Reported: 05/10/2013 10:53

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL519 SDG#: PH039-03MS

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00159	3a Mercury 7471A	SW-846 7471B	1	131220638001	05/03/2013 09:56	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	131220637001	05/02/2013 23:16	Annamaria Stipkovits	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	131220638001	05/03/2013 02:45	Annamaria Stipkovits	1
11625	14a Moisture Content by 160.3	EPA 160.3 modified	3	13127162401A	05/07/2013 08:10	William C Schwebel	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-519-SA7-SB-0.0-0.5MSD Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7036181
LLI Group # 1385735
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/25/2013 08:45 by SM

Submitted: 04/26/2013 09:15
Reported: 05/10/2013 10:53

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL519 SDG#: PH039-03MSD

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	31		1.7	0.68	1
12969	Acenaphthylene	208-96-8	30		1.7	0.34	1
12969	Anthracene	120-12-7	30		1.7	0.34	1
12969	Benzo(a)anthracene	56-55-3	34		1.7	0.68	1
12969	Benzo(a)pyrene	50-32-8	34		1.7	0.68	1
12969	Benzo(b)fluoranthene	205-99-2	44		1.7	0.68	1
12969	Benzo(e)pyrene	192-97-2	35		17	3.4	1
12969	Benzo(g,h,i)perylene	191-24-2	20		1.7	0.68	1
12969	Benzo(k)fluoranthene	207-08-9	39		1.7	0.68	1
12969	Butylbenzylphthalate	85-68-7	36		18	6.1	1
12969	Di-n-butylphthalate	84-74-2	33		18	6.1	1
12969	Chrysene	218-01-9	37		1.7	0.34	1
12969	Dibenz(a,h)anthracene	53-70-3	23		1.7	0.68	1
12969	Diethylphthalate	84-66-2	35		18	6.1	1
12969	Dimethylphthalate	131-11-3	30		18	6.1	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	42		18	6.1	1
12969	Fluoranthene	206-44-0	38		1.7	0.68	1
12969	Fluorene	86-73-7	34		1.7	0.68	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	23		1.7	0.68	1
12969	1-Methylnaphthalene	90-12-0	34		1.7	0.68	1
12969	2-Methylnaphthalene	91-57-6	35		1.7	0.68	1
12969	Naphthalene	91-20-3	34		1.7	0.68	1
12969	N-Nitrosodimethylamine	62-75-9	32		1.7	0.68	1
12969	Di-n-octylphthalate	117-84-0	40		18	6.1	1
12969	Phenanthrene	85-01-8	34		1.7	0.68	1
12969	Pyrene	129-00-0	34		1.7	0.68	1
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
10592	Aroclor 5432	63496-31-1	33	U	33	10	1
10592	Aroclor 5442	12642-23-8	33	U	33	10	1
10592	Aroclor 5460	11126-42-4	33	U	33	10	1
10592	PCB-1016	12674-11-2	170		17	3.3	1
10592	PCB-1221	11104-28-2	17	U	17	5.1	1
10592	PCB-1232	11141-16-5	17	U	17	4.1	1
10592	PCB-1242	53469-21-9	17	U	17	3.3	1
10592	PCB-1248	12672-29-6	17	U	17	3.3	1
10592	PCB-1254	11097-69-1	64		17	4.4	1
10592	PCB-1260	11096-82-5	150		17	3.9	1
10592	PCB-1262	37324-23-5	17	U	17	3.3	1
10592	PCB-1268	11100-14-4	17	U	17	3.3	1
	Project defined QC acceptance limits are not met. All QC is compliant with the laboratory statistically generated limits.						
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	4.8	J	5.1	2.0	1
12952	EFH (C15-C20)	n.a.	23		5.1	2.0	1
12952	EFH (C21-C30)	n.a.	83		5.1	2.0	1
12952	EFH (C30-C40)	n.a.	130		10	4.1	1
12952	EFH (C8-C11)	n.a.	5.6		5.1	2.0	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-519-SA7-SB-0.0-0.5MSD Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7036181
LLI Group # 1385735
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/25/2013 08:45 by SM

Submitted: 04/26/2013 09:15
Reported: 05/10/2013 10:53

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL519 SDG#: PH039-03MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.						
Metals		**SW-846 6010C**	**mg/kg**	**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	15,000	40.6	7.82	1
06944	Antimony	7440-36-0	33.7	4.06	0.507	1
06935	Arsenic	7440-38-2	20.0	4.06	0.335	1
06946	Barium	7440-39-3	302	1.01	0.0335	1
06947	Beryllium	7440-41-7	5.81	1.01	0.0680	1
07914	Boron	7440-42-8	220	10.1	0.842	1
06949	Cadmium	7440-43-9	5.46	1.01	0.0335	1
01650	Calcium	7440-70-2	7,720	20.3	4.08	1
06951	Chromium	7440-47-3	39.4	3.04	0.0893	1
06952	Cobalt	7440-48-4	55.8	1.01	0.0913	1
06953	Copper	7440-50-8	41.1	2.03	0.183	1
01654	Iron	7439-89-6	19,400	40.6	3.85	1
06955	Lead	7439-92-1	30.5	3.04	0.477	1
01656	Lithium	7439-93-2	128	4.1	0.56	1
01657	Magnesium	7439-95-4	5,060	10.1	1.75	1
06958	Manganese	7439-96-5	375	1.01	0.0842	1
06960	Molybdenum	7439-98-7	202	2.03	0.172	1
06961	Nickel	7440-02-0	62.5	2.03	0.112	1
10145	Phosphorus	7723-14-0	630	10.1	0.517	1
01662	Potassium	7440-09-7	4,460	101	13.7	1
01667	Sodium	7440-23-5	1,130	101	16.9	1
06969	Tin	7440-31-5	393	10.1	0.223	1
06970	Titanium	7440-32-6	1,340	1.01	0.172	1
06971	Vanadium	7440-62-2	85.8	1.01	0.112	1
06972	Zinc	7440-66-6	123	4.06	0.203	1
10146	Zirconium	7440-67-7	102	5.07	0.842	1
		SW-846 6020A	**mg/kg**	**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	2.38	0.406	0.101	2
06142	Silver	7440-22-4	11.5	0.203	0.0203	2
06144	Strontium	7440-24-6	44.7	0.406	0.0345	2
06145	Thallium	7440-28-0	0.674	0.203	0.0304	2
		SW-846 7471B	**mg/kg**	**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.221	0.0162	0.0097	1
Wet Chemistry		**EPA 160.3 modified**	**%**	**%**	**%**	
11625	14a Moisture Content by 160.3	n.a.	2.4	0.10	0.10	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-519-SA7-SB-0.0-0.5MSD Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7036181
LLI Group # 1385735
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/25/2013 08:45 by SM

Submitted: 04/26/2013 09:15
Reported: 05/10/2013 10:53

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL519 SDG#: PH039-03MSD

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	18.0		1.01	0.0408	1
11031	12378-PeCDD	40321-76-4	94.6	B	5.07	0.0501	1
11031	123478-HxCDD	39227-28-6	102	B	5.07	0.0478	1
11031	123678-HxCDD	57653-85-7	97.7		5.07	0.0497	1
11031	123789-HxCDD	19408-74-3	98.6		5.07	0.0494	1
11031	1234678-HpCDD	35822-46-9	116	B	5.07	0.0552	1
11031	OCDD	3268-87-9	395	B	10.1	0.0439	1
11031	2378-TCDF	51207-31-9	19.1		1.01	0.0613	1
11031	12378-PeCDF	57117-41-6	98.2	B	5.07	0.0378	1
11031	23478-PeCDF	57117-31-4	99.2	B	5.07	0.0333	1
11031	123478-HxCDF	70648-26-9	102	B	5.07	0.0598	1
11031	123678-HxCDF	57117-44-9	97.7	B	5.07	0.0546	1
11031	123789-HxCDF	72918-21-9	100	B	5.07	0.0547	1
11031	234678-HxCDF	60851-34-5	101	B	5.07	0.0545	1
11031	1234678-HpCDF	67562-39-4	102	B	5.07	0.0638	1
11031	1234789-HpCDF	55673-89-7	97.9	B	5.07	0.0820	1
11031	OCDF	39001-02-0	204	B	10.1	0.0452	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	78	25 - 164
13C12-12378-PeCDD	65	25 - 181
13C12-123478-HxCDD	69	32 - 141
13C12-123678-HxCDD	70	28 - 130
13C12-123789-HxCDD	68	28 - 130
13C12-1234678-HpCDD	65	23 - 140
13C12-OCDD	62	17 - 157
13C12-2378-TCDF	65	24 - 169
13C12-12378-PeCDF	64	24 - 185
13C12-23478-PeCDF	67	21 - 178
13C12-123478-HxCDF	72	26 - 152
13C12-123678-HxCDF	74	26 - 123
13C12-234678-HxCDF	71	28 - 136
13C12-123789-HxCDF	78	29 - 147
13C12-1234678-HpCDF	71	28 - 143
13C12-1234789-HpCDF	62	26 - 138
13C12-OCDF	59	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present
S Saturation of detection signal

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-519-SA7-SB-0.0-0.5MSD Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7036181
LLI Group # 1385735
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/25/2013 08:45 by SM

Submitted: 04/26/2013 09:15
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CDM Federal Programs Corp.
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SL519 SDG#: PH039-03MSD

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13119SLC026	05/01/2013	11:30	Joseph M Gambler	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	13119SLC026	04/29/2013	14:00	David S Schrum	1
10592	19a PCBs and PCTs 8082A	SW-846 8082A	1	131200017A	05/03/2013	02:54	Monica M Souders	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	131200017A	05/01/2013	09:00	Olivia Arosemena	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	131200001A	05/02/2013	06:57	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	131200001A	04/30/2013	18:10	Sally L Appleyard	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13123001	05/07/2013	01:58	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13123001	05/03/2013	12:00	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010C	1	131220637001	05/03/2013	11:25	Joanne M Gates	1
06944	Antimony	SW-846 6010C	1	131220637001	05/03/2013	11:25	Joanne M Gates	1
06935	Arsenic	SW-846 6010C	1	131220637001	05/03/2013	11:25	Joanne M Gates	1
06946	Barium	SW-846 6010C	1	131220637001	05/03/2013	11:25	Joanne M Gates	1
06947	Beryllium	SW-846 6010C	1	131220637001	05/03/2013	11:25	Joanne M Gates	1
07914	Boron	SW-846 6010C	1	131220637001	05/03/2013	11:25	Joanne M Gates	1
06949	Cadmium	SW-846 6010C	1	131220637001	05/03/2013	11:25	Joanne M Gates	1
01650	Calcium	SW-846 6010C	1	131220637001	05/03/2013	11:25	Joanne M Gates	1
06951	Chromium	SW-846 6010C	1	131220637001	05/03/2013	11:25	Joanne M Gates	1
06952	Cobalt	SW-846 6010C	1	131220637001	05/03/2013	11:25	Joanne M Gates	1
06953	Copper	SW-846 6010C	1	131220637001	05/03/2013	11:25	Joanne M Gates	1
01654	Iron	SW-846 6010C	1	131220637001	05/03/2013	11:25	Joanne M Gates	1
06955	Lead	SW-846 6010C	1	131220637001	05/03/2013	11:25	Joanne M Gates	1
01656	Lithium	SW-846 6010C	1	131220637001	05/03/2013	11:25	Joanne M Gates	1
01657	Magnesium	SW-846 6010C	1	131220637001	05/03/2013	11:25	Joanne M Gates	1
06958	Manganese	SW-846 6010C	1	131220637001	05/03/2013	11:25	Joanne M Gates	1
06960	Molybdenum	SW-846 6010C	1	131220637001	05/03/2013	11:25	Joanne M Gates	1
06961	Nickel	SW-846 6010C	1	131220637001	05/03/2013	11:25	Joanne M Gates	1
10145	Phosphorus	SW-846 6010C	1	131220637001	05/03/2013	11:25	Joanne M Gates	1
01662	Potassium	SW-846 6010C	1	131220637001	05/03/2013	11:25	Joanne M Gates	1
01667	Sodium	SW-846 6010C	1	131220637001	05/03/2013	11:25	Joanne M Gates	1
06969	Tin	SW-846 6010C	1	131220637001	05/03/2013	11:25	Joanne M Gates	1
06970	Titanium	SW-846 6010C	1	131220637001	05/03/2013	11:25	Joanne M Gates	1
06971	Vanadium	SW-846 6010C	1	131220637001	05/03/2013	11:25	Joanne M Gates	1
06972	Zinc	SW-846 6010C	1	131220637001	05/03/2013	11:25	Joanne M Gates	1
10146	Zirconium	SW-846 6010C	1	131220637001	05/03/2013	11:25	Joanne M Gates	1
06141	Selenium	SW-846 6020A	1	131220637001B	05/06/2013	11:00	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	131220637001A	05/06/2013	11:00	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	131220637001A	05/06/2013	11:00	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	131220637001A	05/06/2013	11:00	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-519-SA7-SB-0.0-0.5MSD Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7036181
LLI Group # 1385735
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/25/2013 08:45 by SM

Submitted: 04/26/2013 09:15
Reported: 05/10/2013 10:53

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL519 SDG#: PH039-03MSD

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00159	3a Mercury 7471A	SW-846 7471B	1	131220638001	05/03/2013 09:58	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	131220637001	05/02/2013 23:16	Annamaria Stipkovits	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	131220638001	05/03/2013 02:45	Annamaria Stipkovits	1
11625	14a Moisture Content by 160.3	EPA 160.3 modified	3	13127162401A	05/07/2013 08:10	William C Schwebel	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-519-SA7-SB-0.0-0.5DUP Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7036182
LLI Group # 1385735
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/25/2013 08:45 by SM

Submitted: 04/26/2013 09:15
Reported: 05/10/2013 10:53

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL519 SDG#: PH039-03DUP

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	11,100		40.6	7.82	1
06944	Antimony	7440-36-0	4.06	U	4.06	0.507	1
06935	Arsenic	7440-38-2	4.08		4.06	0.335	1
06946	Barium	7440-39-3	90.7		1.01	0.0335	1
06947	Beryllium	7440-41-7	0.431	J	1.01	0.0680	1
07914	Boron	7440-42-8	13.1		10.1	0.842	1
06949	Cadmium	7440-43-9	0.280	J	1.01	0.0335	1
01650	Calcium	7440-70-2	6,120		20.3	4.08	1
06951	Chromium	7440-47-3	16.9		3.04	0.0893	1
06952	Cobalt	7440-48-4	3.96		1.01	0.0913	1
06953	Copper	7440-50-8	11.9		2.03	0.183	1
01654	Iron	7439-89-6	17,600		40.6	3.85	1
06955	Lead	7439-92-1	13.7		3.04	0.477	1
01656	Lithium	7439-93-2	20.6		4.1	0.56	1
01657	Magnesium	7439-95-4	4,270		10.1	1.75	1
06958	Manganese	7439-96-5	297		1.01	0.0842	1
06960	Molybdenum	7439-98-7	0.356	J	2.03	0.172	1
06961	Nickel	7440-02-0	9.96		2.03	0.112	1
10145	Phosphorus	7723-14-0	474		10.1	0.517	1
01662	Potassium	7440-09-7	3,040		101	13.7	1
01667	Sodium	7440-23-5	79.3	J	101	16.9	1
06969	Tin	7440-31-5	2.75	J	10.1	0.223	1
06970	Titanium	7440-32-6	992		1.01	0.172	1
06971	Vanadium	7440-62-2	28.4		1.01	0.112	1
06972	Zinc	7440-66-6	64.2		4.06	0.203	1
10146	Zirconium	7440-67-7	2.40	J	5.07	0.842	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.226	J	0.406	0.101	2
06142	Silver	7440-22-4	0.0493	J	0.203	0.0203	2
06144	Strontium	7440-24-6	36.9		0.406	0.0345	2
06145	Thallium	7440-28-0	0.251		0.203	0.0304	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0566		0.0165	0.0099	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045C	n.a.	7.34		0.0100	0.0100	1
	The pH was measured in water at 21.2 C.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11625	14a Moisture Content by 160.3	n.a.	2.4		0.10	0.10	1
11626	14a Moisture Content by 160.3	n.a.	2.6		0.10	0.10	1
	The duplicate moisture value is provided to assess the precision of the moisture test. For comparability purposes, the initial moisture determination is the value used to perform dry weight calculations.						

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-519-SA7-SB-0.0-0.5DUP Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7036182
LLI Group # 1385735
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/25/2013 08:45 by SM

Submitted: 04/26/2013 09:15
Reported: 05/10/2013 10:53

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL519 SDG#: PH039-03DUP

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01643	Aluminum	SW-846 6010C	1	131220637001	05/03/2013 12:52	Joanne M Gates	1
06944	Antimony	SW-846 6010C	1	131220637001	05/03/2013 12:52	Joanne M Gates	1
06935	Arsenic	SW-846 6010C	1	131220637001	05/03/2013 12:52	Joanne M Gates	1
06946	Barium	SW-846 6010C	1	131220637001	05/03/2013 12:52	Joanne M Gates	1
06947	Beryllium	SW-846 6010C	1	131220637001	05/03/2013 12:52	Joanne M Gates	1
07914	Boron	SW-846 6010C	1	131220637001	05/03/2013 12:52	Joanne M Gates	1
06949	Cadmium	SW-846 6010C	1	131220637001	05/03/2013 12:52	Joanne M Gates	1
01650	Calcium	SW-846 6010C	1	131220637001	05/03/2013 12:52	Joanne M Gates	1
06951	Chromium	SW-846 6010C	1	131220637001	05/03/2013 12:52	Joanne M Gates	1
06952	Cobalt	SW-846 6010C	1	131220637001	05/03/2013 12:52	Joanne M Gates	1
06953	Copper	SW-846 6010C	1	131220637001	05/03/2013 12:52	Joanne M Gates	1
01654	Iron	SW-846 6010C	1	131220637001	05/03/2013 12:52	Joanne M Gates	1
06955	Lead	SW-846 6010C	1	131220637001	05/03/2013 12:52	Joanne M Gates	1
01656	Lithium	SW-846 6010C	1	131220637001	05/03/2013 12:52	Joanne M Gates	1
01657	Magnesium	SW-846 6010C	1	131220637001	05/03/2013 12:52	Joanne M Gates	1
06958	Manganese	SW-846 6010C	1	131220637001	05/03/2013 12:52	Joanne M Gates	1
06960	Molybdenum	SW-846 6010C	1	131220637001	05/03/2013 12:52	Joanne M Gates	1
06961	Nickel	SW-846 6010C	1	131220637001	05/03/2013 12:52	Joanne M Gates	1
10145	Phosphorus	SW-846 6010C	1	131220637001	05/03/2013 12:52	Joanne M Gates	1
01662	Potassium	SW-846 6010C	1	131220637001	05/03/2013 12:52	Joanne M Gates	1
01667	Sodium	SW-846 6010C	1	131220637001	05/03/2013 12:52	Joanne M Gates	1
06969	Tin	SW-846 6010C	1	131220637001	05/03/2013 12:52	Joanne M Gates	1
06970	Titanium	SW-846 6010C	1	131220637001	05/03/2013 12:52	Joanne M Gates	1
06971	Vanadium	SW-846 6010C	1	131220637001	05/03/2013 12:52	Joanne M Gates	1
06972	Zinc	SW-846 6010C	1	131220637001	05/03/2013 12:52	Joanne M Gates	1
10146	Zirconium	SW-846 6010C	1	131220637001	05/03/2013 12:52	Joanne M Gates	1
06141	Selenium	SW-846 6020A	1	131220637001B	05/06/2013 10:55	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	131220637001A	05/06/2013 10:55	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	131220637001A	05/06/2013 10:55	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	131220637001A	05/06/2013 10:55	Choon Y Tian	2
00159	3a Mercury 7471A	SW-846 7471B	1	131220638001	05/03/2013 09:54	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	131220637001	05/02/2013 23:16	Annamaria Stipkovits	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	131220638001	05/03/2013 02:45	Annamaria Stipkovits	1
00394	15a pH by 9045C	SW-846 9045D modified	1	13116039402A	04/26/2013 20:25	Clayton C Litchmore	1
11625	14a Moisture Content by 160.3	EPA 160.3 modified	3	13127162401A	05/07/2013 08:10	William C Schwebel	1
11626	14a Moisture Content by 160.3	EPA 160.3 modified	3	13127162401A	05/07/2013 08:10	William C Schwebel	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-819-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7036183
LLI Group # 1385735
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/25/2013 08:50 by SM

Submitted: 04/26/2013 09:15
Reported: 05/10/2013 10:53

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL819 SDG#: PH039-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.70	1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.35	1
12969	Anthracene	120-12-7	0.59	J	1.7	0.35	1
12969	Benzo(a)anthracene	56-55-3	2.8		1.7	0.70	1
12969	Benzo(a)pyrene	50-32-8	2.7		1.7	0.70	1
12969	Benzo(b)fluoranthene	205-99-2	5.9		1.7	0.70	1
12969	Benzo(e)pyrene	192-97-2	18	U	18	3.5	1
12969	Benzo(g,h,i)perylene	191-24-2	1.4	J	1.7	0.70	1
12969	Benzo(k)fluoranthene	207-08-9	2.4		1.7	0.70	1
12969	Butylbenzylphthalate	85-68-7	19	U	19	6.3	1
12969	Di-n-butylphthalate	84-74-2	19	U	19	6.3	1
12969	Chrysene	218-01-9	5.0		1.7	0.35	1
12969	Dibenz(a,h)anthracene	53-70-3	1.7	U	1.7	0.70	1
12969	Diethylphthalate	84-66-2	19	U	19	6.3	1
12969	Dimethylphthalate	131-11-3	19	U	19	6.3	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	14	J	19	6.3	1
12969	Fluoranthene	206-44-0	5.8		1.7	0.70	1
12969	Fluorene	86-73-7	3.5		1.7	0.70	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.4	J	1.7	0.70	1
12969	1-Methylnaphthalene	90-12-0	1.1	J	1.7	0.70	1
12969	2-Methylnaphthalene	91-57-6	1.8		1.7	0.70	1
12969	Naphthalene	91-20-3	2.1		1.7	0.70	1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.70	1
12969	Di-n-octylphthalate	117-84-0	19	U	19	6.3	1
12969	Phenanthrene	85-01-8	3.3		1.7	0.70	1
12969	Pyrene	129-00-0	5.0		1.7	0.70	1
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
10592	Aroclor 5432	63496-31-1	34	U	34	10	1
10592	Aroclor 5442	12642-23-8	34	U	34	10	1
10592	Aroclor 5460	11126-42-4	34	U	34	10	1
10592	PCB-1016	12674-11-2	17	U	17	3.4	1
10592	PCB-1221	11104-28-2	17	U	17	5.2	1
10592	PCB-1232	11141-16-5	17	U	17	4.2	1
10592	PCB-1242	53469-21-9	17	U	17	3.4	1
10592	PCB-1248	12672-29-6	17	U	17	3.4	1
10592	PCB-1254	11097-69-1	6.1	J	17	4.5	1
10592	PCB-1260	11096-82-5	17	U	17	4.0	1
10592	PCB-1262	37324-23-5	17	U	17	3.4	1
10592	PCB-1268	11100-14-4	17	U	17	3.4	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.2	U	5.2	2.1	1
12952	EFH (C15-C20)	n.a.	14		5.2	2.1	1
12952	EFH (C21-C30)	n.a.	56		5.2	2.1	1
12952	EFH (C30-C40)	n.a.	79		10	4.2	1
12952	EFH (C8-C11)	n.a.	5.2	U	5.2	2.1	1

The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-819-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7036183
LLI Group # 1385735
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/25/2013 08:50 by SM

Submitted: 04/26/2013 09:15
Reported: 05/10/2013 10:53

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL819 SDG#: PH039-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	12,000		41.4	7.98	1
06944	Antimony	7440-36-0	0.542	J	4.14	0.517	1
06935	Arsenic	7440-38-2	4.09	J	4.14	0.341	1
06946	Barium	7440-39-3	107		1.03	0.0341	1
06947	Beryllium	7440-41-7	0.473	J	1.03	0.0693	1
07914	Boron	7440-42-8	13.7		10.3	0.859	1
06949	Cadmium	7440-43-9	0.380	J	1.03	0.0341	1
01650	Calcium	7440-70-2	6,150		20.7	4.16	1
06951	Chromium	7440-47-3	17.0		3.10	0.0910	1
06952	Cobalt	7440-48-4	4.40		1.03	0.0931	1
06953	Copper	7440-50-8	12.0		2.07	0.186	1
01654	Iron	7439-89-6	18,500		41.4	3.93	1
06955	Lead	7439-92-1	15.1		3.10	0.486	1
01656	Lithium	7439-93-2	19.6		4.1	0.57	1
01657	Magnesium	7439-95-4	4,550		10.3	1.79	1
06958	Manganese	7439-96-5	328		1.03	0.0859	1
06960	Molybdenum	7439-98-7	0.337	J	2.07	0.176	1
06961	Nickel	7440-02-0	10.1		2.07	0.114	1
10145	Phosphorus	7723-14-0	515		10.3	0.528	1
01662	Potassium	7440-09-7	3,320		103	14.0	1
01667	Sodium	7440-23-5	84.8	J	103	17.3	1
06969	Tin	7440-31-5	2.68	J	10.3	0.228	1
06970	Titanium	7440-32-6	1,040		1.03	0.176	1
06971	Vanadium	7440-62-2	30.2		1.03	0.114	1
06972	Zinc	7440-66-6	69.5		4.14	0.207	1
10146	Zirconium	7440-67-7	2.54	J	5.17	0.859	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.139	J	0.414	0.103	2
06142	Silver	7440-22-4	0.0326	J	0.207	0.0207	2
06144	Strontium	7440-24-6	36.6		0.414	0.0352	2
06145	Thallium	7440-28-0	0.259		0.207	0.0310	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0492		0.0163	0.0098	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045C	n.a.	7.59		0.0100	0.0100	1
	The pH was measured in water at 21.2 C.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	4.3		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-819-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7036183
LLI Group # 1385735
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/25/2013 08:50 by SM

Submitted: 04/26/2013 09:15
Reported: 05/10/2013 10:53

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL819 SDG#: PH039-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0291	JQ	1.02	0.0290	1
11031	12378-PeCDD	40321-76-4	0.210	JBQ	5.08	0.0444	1
11031	123478-HxCDD	39227-28-6	0.317	JB	5.08	0.0540	1
11031	123678-HxCDD	57653-85-7	0.728	J	5.08	0.0562	1
11031	123789-HxCDD	19408-74-3	0.654	J	5.08	0.0537	1
11031	1234678-HpCDD	35822-46-9	17.1	B	5.08	0.0579	1
11031	OCDD	3268-87-9	174	B	10.2	0.0461	1
11031	2378-TCDF	51207-31-9	0.184	JQ	1.02	0.0703	1
11031	12378-PeCDF	57117-41-6	0.577	JBQ	5.08	0.0385	1
11031	23478-PeCDF	57117-31-4	0.484	JBQ	5.08	0.0363	1
11031	123478-HxCDF	70648-26-9	0.435	JB	5.08	0.0413	1
11031	123678-HxCDF	57117-44-9	0.307	JBQ	5.08	0.0383	1
11031	123789-HxCDF	72918-21-9	0.108	JBQ	5.08	0.0383	1
11031	234678-HxCDF	60851-34-5	0.284	JB	5.08	0.0403	1
11031	1234678-HpCDF	67562-39-4	3.38	JB	5.08	0.0395	1
11031	1234789-HpCDF	55673-89-7	0.298	JBQ	5.08	0.0648	1
11031	OCDF	39001-02-0	13.7	B	10.2	0.0491	1
Toxic Equivalents	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.503				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	79	25 - 164
13C12-12378-PeCDD	60	25 - 181
13C12-123478-HxCDD	62	32 - 141
13C12-123678-HxCDD	61	28 - 130
13C12-123789-HxCDD	62	28 - 130
13C12-1234678-HpCDD	58	23 - 140
13C12-OCDD	55	17 - 157
13C12-2378-TCDF	62	24 - 169
13C12-12378-PeCDF	61	24 - 185
13C12-23478-PeCDF	61	21 - 178
13C12-123478-HxCDF	63	26 - 152
13C12-123678-HxCDF	66	26 - 123
13C12-234678-HxCDF	63	28 - 136
13C12-123789-HxCDF	74	29 - 147
13C12-1234678-HpCDF	70	28 - 143
13C12-1234789-HpCDF	50	26 - 138
13C12-OCDF	46	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-819-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7036183
LLI Group # 1385735
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/25/2013 08:50 by SM

Submitted: 04/26/2013 09:15
Reported: 05/10/2013 10:53

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL819 SDG#: PH039-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-819-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7036183
LLI Group # 1385735
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/25/2013 08:50 by SM

Submitted: 04/26/2013 09:15
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CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL819 SDG#: PH039-04

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13119SLC026	05/01/2013	15:09	Joseph M Gambler	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	13119SLC026	04/29/2013	14:00	David S Schrum	1
10592	19a PCBs and PCTs 8082A	SW-846 8082A	1	131200017A	05/03/2013	03:12	Monica M Souders	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	131200017A	05/01/2013	09:00	Olivia Arosemena	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	131200001A	05/02/2013	08:20	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	131200001A	04/30/2013	18:10	Sally L Appleyard	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13123001	05/07/2013	02:55	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13123001	05/03/2013	12:00	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010C	1	131220637001	05/03/2013	12:18	Joanne M Gates	1
06944	Antimony	SW-846 6010C	1	131220637001	05/03/2013	12:18	Joanne M Gates	1
06935	Arsenic	SW-846 6010C	1	131220637001	05/03/2013	12:18	Joanne M Gates	1
06946	Barium	SW-846 6010C	1	131220637001	05/03/2013	12:18	Joanne M Gates	1
06947	Beryllium	SW-846 6010C	1	131220637001	05/03/2013	12:18	Joanne M Gates	1
07914	Boron	SW-846 6010C	1	131220637001	05/03/2013	12:18	Joanne M Gates	1
06949	Cadmium	SW-846 6010C	1	131220637001	05/03/2013	12:18	Joanne M Gates	1
01650	Calcium	SW-846 6010C	1	131220637001	05/03/2013	12:18	Joanne M Gates	1
06951	Chromium	SW-846 6010C	1	131220637001	05/03/2013	12:18	Joanne M Gates	1
06952	Cobalt	SW-846 6010C	1	131220637001	05/03/2013	12:18	Joanne M Gates	1
06953	Copper	SW-846 6010C	1	131220637001	05/03/2013	12:18	Joanne M Gates	1
01654	Iron	SW-846 6010C	1	131220637001	05/03/2013	12:18	Joanne M Gates	1
06955	Lead	SW-846 6010C	1	131220637001	05/03/2013	12:18	Joanne M Gates	1
01656	Lithium	SW-846 6010C	1	131220637001	05/03/2013	12:18	Joanne M Gates	1
01657	Magnesium	SW-846 6010C	1	131220637001	05/03/2013	12:18	Joanne M Gates	1
06958	Manganese	SW-846 6010C	1	131220637001	05/03/2013	12:18	Joanne M Gates	1
06960	Molybdenum	SW-846 6010C	1	131220637001	05/03/2013	12:18	Joanne M Gates	1
06961	Nickel	SW-846 6010C	1	131220637001	05/03/2013	12:18	Joanne M Gates	1
10145	Phosphorus	SW-846 6010C	1	131220637001	05/03/2013	12:18	Joanne M Gates	1
01662	Potassium	SW-846 6010C	1	131220637001	05/03/2013	12:18	Joanne M Gates	1
01667	Sodium	SW-846 6010C	1	131220637001	05/03/2013	12:18	Joanne M Gates	1
06969	Tin	SW-846 6010C	1	131220637001	05/03/2013	12:18	Joanne M Gates	1
06970	Titanium	SW-846 6010C	1	131220637001	05/03/2013	12:18	Joanne M Gates	1
06971	Vanadium	SW-846 6010C	1	131220637001	05/03/2013	12:18	Joanne M Gates	1
06972	Zinc	SW-846 6010C	1	131220637001	05/03/2013	12:18	Joanne M Gates	1
10146	Zirconium	SW-846 6010C	1	131220637001	05/03/2013	12:18	Joanne M Gates	1
06141	Selenium	SW-846 6020A	1	131220637001B	05/06/2013	11:33	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	131220637001A	05/06/2013	11:33	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	131220637001A	05/06/2013	11:33	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	131220637001A	05/06/2013	11:33	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-819-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7036183
LLI Group # 1385735
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/25/2013 08:50 by SM

Submitted: 04/26/2013 09:15
Reported: 05/10/2013 10:53

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL819 SDG#: PH039-04

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00159	3a Mercury 7471A	SW-846 7471B	1	131220638001	05/03/2013 10:00	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	131220637001	05/02/2013 23:16	Annamaria Stipkovits	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	131220638001	05/03/2013 02:45	Annamaria Stipkovits	1
00394	15a pH by 9045C	SW-846 9045D modified	1	13116039402A	04/26/2013 20:25	Clayton C Litchmore	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13121162401A	05/01/2013 22:00	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-519-SA7-SB-2.0-3.0 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7036184
LLI Group # 1385735
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/25/2013 09:50 by SM

Submitted: 04/26/2013 09:15
Reported: 05/10/2013 10:53

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

S-519 SDG#: PH039-05

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.69	1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.35	1
12969	Anthracene	120-12-7	0.68	J	1.7	0.35	1
12969	Benzo(a)anthracene	56-55-3	5.9		1.7	0.69	1
12969	Benzo(a)pyrene	50-32-8	5.4		1.7	0.69	1
12969	Benzo(b)fluoranthene	205-99-2	9.4		1.7	0.69	1
12969	Benzo(e)pyrene	192-97-2	4.1	J	18	3.4	1
12969	Benzo(g,h,i)perylene	191-24-2	1.8		1.7	0.69	1
12969	Benzo(k)fluoranthene	207-08-9	3.9		1.7	0.69	1
12969	Butylbenzylphthalate	85-68-7	19	U	19	6.2	1
12969	Di-n-butylphthalate	84-74-2	19	U	19	6.2	1
12969	Chrysene	218-01-9	7.9		1.7	0.35	1
12969	Dibenz(a,h)anthracene	53-70-3	1.7	U	1.7	0.69	1
12969	Diethylphthalate	84-66-2	19	U	19	6.2	1
12969	Dimethylphthalate	131-11-3	19	U	19	6.2	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	10	J	19	6.2	1
12969	Fluoranthene	206-44-0	9.4		1.7	0.69	1
12969	Fluorene	86-73-7	2.3		1.7	0.69	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	2.0		1.7	0.69	1
12969	1-Methylnaphthalene	90-12-0	1.7	U	1.7	0.69	1
12969	2-Methylnaphthalene	91-57-6	0.96	J	1.7	0.69	1
12969	Naphthalene	91-20-3	0.95	J	1.7	0.69	1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.69	1
12969	Di-n-octylphthalate	117-84-0	19	U	19	6.2	1
12969	Phenanthrene	85-01-8	2.9		1.7	0.69	1
12969	Pyrene	129-00-0	9.1		1.7	0.69	1
GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	1.4		1.2	0.2	29.98
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
10592	Aroclor 5432	63496-31-1	34	U	34	10	1
10592	Aroclor 5442	12642-23-8	34	U	34	10	1
10592	Aroclor 5460	11126-42-4	34	U	34	10	1
10592	PCB-1016	12674-11-2	17	U	17	3.4	1
10592	PCB-1221	11104-28-2	17	U	17	5.2	1
10592	PCB-1232	11141-16-5	17	U	17	4.2	1
10592	PCB-1242	53469-21-9	17	U	17	3.4	1
10592	PCB-1248	12672-29-6	17	U	17	3.4	1
10592	PCB-1254	11097-69-1	17	U	17	4.5	1
10592	PCB-1260	11096-82-5	17	U	17	4.0	1
10592	PCB-1262	37324-23-5	17	U	17	3.4	1
10592	PCB-1268	11100-14-4	17	U	17	3.4	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.2	U	5.2	2.1	1
12952	EFH (C15-C20)	n.a.	9.2		5.2	2.1	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-519-SA7-SB-2.0-3.0 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7036184
LLI Group # 1385735
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/25/2013 09:50 by SM

Submitted: 04/26/2013 09:15
Reported: 05/10/2013 10:53

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

S-519 SDG#: PH039-05

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C21-C30)	n.a.	40		5.2	2.1	1
12952	EFH (C30-C40)	n.a.	51		10	4.1	1
12952	EFH (C8-C11)	n.a.	5.2	U	5.2	2.1	1
	The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.						
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	11,700		40.6	7.82	1
06944	Antimony	7440-36-0	0.737	J	4.06	0.507	1
06935	Arsenic	7440-38-2	3.96	J	4.06	0.335	1
06946	Barium	7440-39-3	83.7		1.01	0.0335	1
06947	Beryllium	7440-41-7	0.506	J	1.01	0.0680	1
07914	Boron	7440-42-8	10.6		10.1	0.842	1
06949	Cadmium	7440-43-9	0.239	J	1.01	0.0335	1
01650	Calcium	7440-70-2	3,800		20.3	4.08	1
06951	Chromium	7440-47-3	22.2		3.04	0.0893	1
06952	Cobalt	7440-48-4	5.56		1.01	0.0913	1
06953	Copper	7440-50-8	11.0		2.03	0.183	1
01654	Iron	7439-89-6	20,300		40.6	3.86	1
06955	Lead	7439-92-1	7.87		3.04	0.477	1
01656	Lithium	7439-93-2	20.7		4.1	0.56	1
01657	Magnesium	7439-95-4	4,810		10.1	1.76	1
06958	Manganese	7439-96-5	333		1.01	0.0842	1
06960	Molybdenum	7439-98-7	0.406	J	2.03	0.173	1
06961	Nickel	7440-02-0	9.69		2.03	0.112	1
10145	Phosphorus	7723-14-0	408		10.1	0.518	1
01662	Potassium	7440-09-7	2,850		101	13.7	1
01667	Sodium	7440-23-5	95.0	J	101	16.9	1
06969	Tin	7440-31-5	2.54	J	10.1	0.223	1
06970	Titanium	7440-32-6	1,060		1.01	0.173	1
06971	Vanadium	7440-62-2	33.0		1.01	0.112	1
06972	Zinc	7440-66-6	58.0		4.06	0.203	1
10146	Zirconium	7440-67-7	2.27	J	5.07	0.842	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.154	J	0.406	0.101	2
06142	Silver	7440-22-4	0.0224	J	0.203	0.0203	2
06144	Strontium	7440-24-6	23.1		0.406	0.0345	2
06145	Thallium	7440-28-0	0.315		0.203	0.0304	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0254		0.0165	0.0099	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045C	n.a.	7.59		0.0100	0.0100	1
	The pH was measured in water at 21.5 C.						

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-519-SA7-SB-2.0-3.0 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7036184
LLI Group # 1385735
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/25/2013 09:50 by SM

Submitted: 04/26/2013 09:15
Reported: 05/10/2013 10:53

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

S-519 SDG#: PH039-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Wet Chemistry	**EPA 160.3 modified**		%	%	%	
11624	14a Moisture Content by 160.3	n.a.	3.4	0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.					

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-519-SA7-SB-2.0-3.0 Soil
SSFL Phase 3 Subarea 7

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Project Name: Phase 3 Subarea 7

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CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

S-519 SDG#: PH039-05

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	1.01	U	1.01	0.0216	1
11031	12378-PeCDD	40321-76-4	0.0778	JBQ	5.06	0.0226	1
11031	123478-HxCDD	39227-28-6	0.119	JQ	5.06	0.0241	1
11031	123678-HxCDD	57653-85-7	0.209	JB	5.06	0.0248	1
11031	123789-HxCDD	19408-74-3	0.183	JB	5.06	0.0253	1
11031	1234678-HpCDD	35822-46-9	4.07	JB	5.06	0.0229	1
11031	OCDD	3268-87-9	35.1	B	10.1	0.0213	1
11031	2378-TCDF	51207-31-9	0.142	J	1.01	0.0309	1
11031	12378-PeCDF	57117-41-6	0.250	JBQ	5.06	0.0156	1
11031	23478-PeCDF	57117-31-4	0.160	JBQ	5.06	0.0159	1
11031	123478-HxCDF	70648-26-9	0.112	JB	5.06	0.0195	1
11031	123678-HxCDF	57117-44-9	0.118	JBQ	5.06	0.0175	1
11031	123789-HxCDF	72918-21-9	0.0583	JBQ	5.06	0.0198	1
11031	234678-HxCDF	60851-34-5	0.103	JBQ	5.06	0.0176	1
11031	1234678-HpCDF	67562-39-4	0.565	JB	5.06	0.0154	1
11031	1234789-HpCDF	55673-89-7	0.0915	JBQ	5.06	0.0222	1
11031	OCDF	39001-02-0	1.54	JB	10.1	0.0270	1
Toxic Equivalents	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.122				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	76	25 - 164
13C12-12378-PeCDD	74	25 - 181
13C12-123478-HxCDD	80	32 - 141
13C12-123678-HxCDD	84	28 - 130
13C12-123789-HxCDD	78	28 - 130
13C12-1234678-HpCDD	77	23 - 140
13C12-OCDD	77	17 - 157
13C12-2378-TCDF	68	24 - 169
13C12-12378-PeCDF	77	24 - 185
13C12-23478-PeCDF	73	21 - 178
13C12-123478-HxCDF	82	26 - 152
13C12-123678-HxCDF	87	26 - 123
13C12-234678-HxCDF	81	28 - 136
13C12-123789-HxCDF	84	29 - 147
13C12-1234678-HpCDF	96	28 - 143
13C12-1234789-HpCDF	72	26 - 138
13C12-OCDF	69	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-519-SA7-SB-2.0-3.0 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7036184
LLI Group # 1385735
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/25/2013 09:50 by SM

Submitted: 04/26/2013 09:15
Reported: 05/10/2013 10:53

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

S-519 SDG#: PH039-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-519-SA7-SB-2.0-3.0 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7036184
LLI Group # 1385735
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/25/2013 09:50 by SM

Submitted: 04/26/2013 09:15
Reported: 05/10/2013 10:53

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

S-519 SDG#: PH039-05

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13119SLC026	05/01/2013	15:40	Joseph M Gambler	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	13119SLC026	04/29/2013	14:00	David S Schrum	1
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	13120A16A	04/30/2013	17:19	Laura M Krieger	29.98
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201311630893	04/26/2013	15:34	Mitchell R Washel	n.a.
10592	19a PCBs and PCTs 8082A	SW-846 8082A	1	131200017A	05/03/2013	03:31	Monica M Souders	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	131200017A	05/01/2013	09:00	Olivia Arosemena	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	131200001A	05/02/2013	08:41	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	131200001A	04/30/2013	18:10	Sally L Appleyard	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13128001	05/09/2013	18:28	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	2	13128001	05/08/2013	13:00	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010C	1	131220637001	05/03/2013	12:22	Joanne M Gates	1
06944	Antimony	SW-846 6010C	1	131220637001	05/03/2013	12:22	Joanne M Gates	1
06935	Arsenic	SW-846 6010C	1	131220637001	05/03/2013	12:22	Joanne M Gates	1
06946	Barium	SW-846 6010C	1	131220637001	05/03/2013	12:22	Joanne M Gates	1
06947	Beryllium	SW-846 6010C	1	131220637001	05/03/2013	12:22	Joanne M Gates	1
07914	Boron	SW-846 6010C	1	131220637001	05/03/2013	12:22	Joanne M Gates	1
06949	Cadmium	SW-846 6010C	1	131220637001	05/03/2013	12:22	Joanne M Gates	1
01650	Calcium	SW-846 6010C	1	131220637001	05/03/2013	12:22	Joanne M Gates	1
06951	Chromium	SW-846 6010C	1	131220637001	05/03/2013	12:22	Joanne M Gates	1
06952	Cobalt	SW-846 6010C	1	131220637001	05/03/2013	12:22	Joanne M Gates	1
06953	Copper	SW-846 6010C	1	131220637001	05/03/2013	12:22	Joanne M Gates	1
01654	Iron	SW-846 6010C	1	131220637001	05/03/2013	12:22	Joanne M Gates	1
06955	Lead	SW-846 6010C	1	131220637001	05/03/2013	12:22	Joanne M Gates	1
01656	Lithium	SW-846 6010C	1	131220637001	05/03/2013	12:22	Joanne M Gates	1
01657	Magnesium	SW-846 6010C	1	131220637001	05/03/2013	12:22	Joanne M Gates	1
06958	Manganese	SW-846 6010C	1	131220637001	05/03/2013	12:22	Joanne M Gates	1
06960	Molybdenum	SW-846 6010C	1	131220637001	05/03/2013	12:22	Joanne M Gates	1
06961	Nickel	SW-846 6010C	1	131220637001	05/03/2013	12:22	Joanne M Gates	1
10145	Phosphorus	SW-846 6010C	1	131220637001	05/03/2013	12:22	Joanne M Gates	1
01662	Potassium	SW-846 6010C	1	131220637001	05/03/2013	12:22	Joanne M Gates	1
01667	Sodium	SW-846 6010C	1	131220637001	05/03/2013	12:22	Joanne M Gates	1
06969	Tin	SW-846 6010C	1	131220637001	05/03/2013	12:22	Joanne M Gates	1
06970	Titanium	SW-846 6010C	1	131220637001	05/03/2013	12:22	Joanne M Gates	1
06971	Vanadium	SW-846 6010C	1	131220637001	05/03/2013	12:22	Joanne M Gates	1
06972	Zinc	SW-846 6010C	1	131220637001	05/03/2013	12:22	Joanne M Gates	1
10146	Zirconium	SW-846 6010C	1	131220637001	05/03/2013	12:22	Joanne M Gates	1
06141	Selenium	SW-846 6020A	1	131220637001B	05/06/2013	11:35	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-519-SA7-SB-2.0-3.0 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7036184
LLI Group # 1385735
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/25/2013 09:50 by SM

Submitted: 04/26/2013 09:15
Reported: 05/10/2013 10:53

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

S-519 SDG#: PH039-05

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06142	Silver	SW-846 6020A	1	131220637001A	05/06/2013 11:35	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	131220637001A	05/06/2013 11:35	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	131220637001A	05/06/2013 11:35	Choon Y Tian	2
00159	3a Mercury 7471A	SW-846 7471B	1	131220638001	05/03/2013 10:02	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	131220637001	05/02/2013 23:16	Annamaria Stipkovits	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	131220638001	05/03/2013 02:45	Annamaria Stipkovits	1
00394	15a pH by 9045C	SW-846 9045D modified	1	13116039402A	04/26/2013 20:25	Clayton C Litchmore	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13121162401B	05/01/2013 22:00	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-509-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7036185
LLI Group # 1385735
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/25/2013 10:40 by SM

Submitted: 04/26/2013 09:15
Reported: 05/10/2013 10:53

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL509 SDG#: PH039-06

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.69	1
12969	Acenaphthylene	208-96-8	0.46	J	1.7	0.35	1
12969	Anthracene	120-12-7	0.60	J	1.7	0.35	1
12969	Benzo(a)anthracene	56-55-3	2.5		1.7	0.69	1
12969	Benzo(a)pyrene	50-32-8	2.9		1.7	0.69	1
12969	Benzo(b)fluoranthene	205-99-2	6.3		1.7	0.69	1
12969	Benzo(e)pyrene	192-97-2	4.5	J	18	3.4	1
12969	Benzo(g,h,i)perylene	191-24-2	2.3		1.7	0.69	1
12969	Benzo(k)fluoranthene	207-08-9	2.0		1.7	0.69	1
12969	Butylbenzylphthalate	85-68-7	17	J	19	6.2	1
12969	Di-n-butylphthalate	84-74-2	19	U	19	6.2	1
12969	Chrysene	218-01-9	4.7		1.7	0.35	1
12969	Dibenz(a,h)anthracene	53-70-3	1.1	J	1.7	0.69	1
12969	Diethylphthalate	84-66-2	19	U	19	6.2	1
12969	Dimethylphthalate	131-11-3	19	U	19	6.2	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	610		190	62	10
12969	Fluoranthene	206-44-0	5.4		1.7	0.69	1
12969	Fluorene	86-73-7	1.9		1.7	0.69	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.8		1.7	0.69	1
12969	1-Methylnaphthalene	90-12-0	1.1	J	1.7	0.69	1
12969	2-Methylnaphthalene	91-57-6	1.7		1.7	0.69	1
12969	Naphthalene	91-20-3	2.5		1.7	0.69	1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.69	1
12969	Di-n-octylphthalate	117-84-0	19	U	19	6.2	1
12969	Phenanthrene	85-01-8	2.5		1.7	0.69	1
12969	Pyrene	129-00-0	4.2		1.7	0.69	1
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
10592	Aroclor 5432	63496-31-1	34	U	34	10	1
10592	Aroclor 5442	12642-23-8	34	U	34	10	1
10592	Aroclor 5460	11126-42-4	57		34	10	1
10592	PCB-1016	12674-11-2	17	U	17	3.4	1
10592	PCB-1221	11104-28-2	17	U	17	5.2	1
10592	PCB-1232	11141-16-5	17	U	17	4.2	1
10592	PCB-1242	53469-21-9	17	U	17	3.4	1
10592	PCB-1248	12672-29-6	17	U	17	3.4	1
10592	PCB-1254	11097-69-1	100		17	4.5	1
10592	PCB-1260	11096-82-5	17	U	17	4.0	1
10592	PCB-1262	37324-23-5	17	U	17	3.4	1
10592	PCB-1268	11100-14-4	17	U	17	3.4	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	26	U	26	10	5
12952	EFH (C15-C20)	n.a.	26	U	26	10	5
12952	EFH (C21-C30)	n.a.	52		26	10	5
12952	EFH (C30-C40)	n.a.	140		52	21	5
12952	EFH (C8-C11)	n.a.	26	U	26	10	5

The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-509-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7036185
LLI Group # 1385735
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/25/2013 10:40 by SM

Submitted: 04/26/2013 09:15
Reported: 05/10/2013 10:53

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL509 SDG#: PH039-06

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	11,800		40.6	7.82	1
06944	Antimony	7440-36-0	0.692	J	4.06	0.507	1
06935	Arsenic	7440-38-2	5.38		4.06	0.335	1
06946	Barium	7440-39-3	73.0		1.01	0.0335	1
06947	Beryllium	7440-41-7	0.486	J	1.01	0.0680	1
07914	Boron	7440-42-8	11.7		10.1	0.842	1
06949	Cadmium	7440-43-9	0.330	J	1.01	0.0335	1
01650	Calcium	7440-70-2	4,410		20.3	4.08	1
06951	Chromium	7440-47-3	18.2		3.04	0.0893	1
06952	Cobalt	7440-48-4	5.83		1.01	0.0913	1
06953	Copper	7440-50-8	16.3		2.03	0.183	1
01654	Iron	7439-89-6	21,700		40.6	3.86	1
06955	Lead	7439-92-1	17.0		3.04	0.477	1
01656	Lithium	7439-93-2	23.3		4.1	0.56	1
01657	Magnesium	7439-95-4	4,920		10.1	1.76	1
06958	Manganese	7439-96-5	297		1.01	0.0842	1
06960	Molybdenum	7439-98-7	0.337	J	2.03	0.173	1
06961	Nickel	7440-02-0	11.2		2.03	0.112	1
10145	Phosphorus	7723-14-0	422		10.1	0.518	1
01662	Potassium	7440-09-7	2,940		101	13.7	1
01667	Sodium	7440-23-5	77.7	J	101	16.9	1
06969	Tin	7440-31-5	6.56	J	10.1	0.223	1
06970	Titanium	7440-32-6	1,000		1.01	0.173	1
06971	Vanadium	7440-62-2	34.2		1.01	0.112	1
06972	Zinc	7440-66-6	90.6		4.06	0.203	1
10146	Zirconium	7440-67-7	2.53	J	5.07	0.842	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.209	J	0.406	0.101	2
06142	Silver	7440-22-4	0.0409	J	0.203	0.0203	2
06144	Strontium	7440-24-6	23.5		0.406	0.0345	2
06145	Thallium	7440-28-0	0.269		0.203	0.0304	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0900		0.0164	0.0099	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045C	n.a.	7.76		0.0100	0.0100	1
	The pH was measured in water at 21.5 C.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	3.4		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-509-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7036185
LLI Group # 1385735
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/25/2013 10:40 by SM

Submitted: 04/26/2013 09:15
Reported: 05/10/2013 10:53

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Fairfax VA 22030

SL509 SDG#: PH039-06

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0597	JQ	1.02	0.0279	1
11031	12378-PeCDD	40321-76-4	5.08	U	5.08	0.0779	1
11031	123478-HxCDD	39227-28-6	1.80	JB	5.08	0.0536	1
11031	123678-HxCDD	57653-85-7	5.60		5.08	0.0566	1
11031	123789-HxCDD	19408-74-3	3.43	J	5.08	0.0560	1
11031	1234678-HpCDD	35822-46-9	154	B	5.08	0.111	1
11031	OCDD	3268-87-9	1,090	B	10.2	0.0771	1
11031	2378-TCDF	51207-31-9	0.880	J	1.02	0.0941	1
11031	12378-PeCDF	57117-41-6	2.32	JB	5.08	0.0506	1
11031	23478-PeCDF	57117-31-4	1.04	JB	5.08	0.0442	1
11031	123478-HxCDF	70648-26-9	2.67	JB	5.08	0.0567	1
11031	123678-HxCDF	57117-44-9	1.26	JB	5.08	0.0530	1
11031	123789-HxCDF	72918-21-9	5.08	U	5.08	0.0528	1
11031	234678-HxCDF	60851-34-5	1.34	JB	5.08	0.0556	1
11031	1234678-HpCDF	67562-39-4	30.7	B	5.08	0.0464	1
11031	1234789-HpCDF	55673-89-7	2.03	JB	5.08	0.0687	1
11031	OCDF	39001-02-0	87.8	B	10.2	0.0534	1
Toxic Equivalents	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	4.31				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	77	25 - 164
13C12-12378-PeCDD	56	25 - 181
13C12-123478-HxCDD	62	32 - 141
13C12-123678-HxCDD	61	28 - 130
13C12-123789-HxCDD	60	28 - 130
13C12-1234678-HpCDD	55	23 - 140
13C12-OCDD	53	17 - 157
13C12-2378-TCDF	61	24 - 169
13C12-12378-PeCDF	57	24 - 185
13C12-23478-PeCDF	59	21 - 178
13C12-123478-HxCDF	63	26 - 152
13C12-123678-HxCDF	65	26 - 123
13C12-234678-HxCDF	62	28 - 136
13C12-123789-HxCDF	74	29 - 147
13C12-1234678-HpCDF	65	28 - 143
13C12-1234789-HpCDF	50	26 - 138
13C12-OCDF	46	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration

*=This limit was used in the evaluation of the final result

Sample Description: SL-509-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7036185
LLI Group # 1385735
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/25/2013 10:40 by SM

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SL509 SDG#: PH039-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

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Analysis Report

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SSFL Phase 3 Subarea 7

LLI Sample # SW 7036185
LLI Group # 1385735
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Project Name: Phase 3 Subarea 7

Collected: 04/25/2013 10:40 by SM

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SL509 SDG#: PH039-06

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13119SLC026	05/01/2013	16:11	Joseph M Gambler	1
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13119SLC026	05/02/2013	07:16	Mark A Clark	10
10811	BNA Soil Microwave SIM	SW-846 3546	1	13119SLC026	04/29/2013	14:00	David S Schrum	1
10592	19a PCBs and PCTs 8082A	SW-846 8082A	1	131200017A	05/03/2013	03:49	Monica M Souders	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	131200017A	05/01/2013	09:00	Olivia Arosemena	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	131200001A	05/02/2013	10:03	Heather E Williams	5
12959	EFH soil ext.(microwave)	SW-846 3546	1	131200001A	04/30/2013	18:10	Sally L Appleyard	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13123001	05/07/2013	04:48	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13123001	05/03/2013	12:00	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010C	1	131220637001	05/03/2013	12:33	Joanne M Gates	1
06944	Antimony	SW-846 6010C	1	131220637001	05/03/2013	12:33	Joanne M Gates	1
06935	Arsenic	SW-846 6010C	1	131220637001	05/03/2013	12:33	Joanne M Gates	1
06946	Barium	SW-846 6010C	1	131220637001	05/03/2013	12:33	Joanne M Gates	1
06947	Beryllium	SW-846 6010C	1	131220637001	05/03/2013	12:33	Joanne M Gates	1
07914	Boron	SW-846 6010C	1	131220637001	05/03/2013	12:33	Joanne M Gates	1
06949	Cadmium	SW-846 6010C	1	131220637001	05/03/2013	12:33	Joanne M Gates	1
01650	Calcium	SW-846 6010C	1	131220637001	05/03/2013	12:33	Joanne M Gates	1
06951	Chromium	SW-846 6010C	1	131220637001	05/03/2013	12:33	Joanne M Gates	1
06952	Cobalt	SW-846 6010C	1	131220637001	05/03/2013	12:33	Joanne M Gates	1
06953	Copper	SW-846 6010C	1	131220637001	05/03/2013	12:33	Joanne M Gates	1
01654	Iron	SW-846 6010C	1	131220637001	05/03/2013	12:33	Joanne M Gates	1
06955	Lead	SW-846 6010C	1	131220637001	05/03/2013	12:33	Joanne M Gates	1
01656	Lithium	SW-846 6010C	1	131220637001	05/03/2013	12:33	Joanne M Gates	1
01657	Magnesium	SW-846 6010C	1	131220637001	05/03/2013	12:33	Joanne M Gates	1
06958	Manganese	SW-846 6010C	1	131220637001	05/03/2013	12:33	Joanne M Gates	1
06960	Molybdenum	SW-846 6010C	1	131220637001	05/03/2013	12:33	Joanne M Gates	1
06961	Nickel	SW-846 6010C	1	131220637001	05/03/2013	12:33	Joanne M Gates	1
10145	Phosphorus	SW-846 6010C	1	131220637001	05/03/2013	12:33	Joanne M Gates	1
01662	Potassium	SW-846 6010C	1	131220637001	05/03/2013	12:33	Joanne M Gates	1
01667	Sodium	SW-846 6010C	1	131220637001	05/03/2013	12:33	Joanne M Gates	1
06969	Tin	SW-846 6010C	1	131220637001	05/03/2013	12:33	Joanne M Gates	1
06970	Titanium	SW-846 6010C	1	131220637001	05/03/2013	12:33	Joanne M Gates	1
06971	Vanadium	SW-846 6010C	1	131220637001	05/03/2013	12:33	Joanne M Gates	1
06972	Zinc	SW-846 6010C	1	131220637001	05/03/2013	12:33	Joanne M Gates	1
10146	Zirconium	SW-846 6010C	1	131220637001	05/03/2013	12:33	Joanne M Gates	1
06141	Selenium	SW-846 6020A	1	131220637001B	05/06/2013	11:42	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	131220637001A	05/06/2013	11:42	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	131220637001A	05/06/2013	11:42	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-509-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7036185
LLI Group # 1385735
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/25/2013 10:40 by SM

Submitted: 04/26/2013 09:15
Reported: 05/10/2013 10:53

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL509 SDG#: PH039-06

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06145	Thallium	SW-846 6020A	1	131220637001A	05/06/2013 11:42	Choon Y Tian	2
00159	3a Mercury 7471A	SW-846 7471B	1	131220638001	05/03/2013 10:04	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	131220637001	05/02/2013 23:16	Annamaria Stipkovits	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	131220638001	05/03/2013 02:45	Annamaria Stipkovits	1
00394	15a pH by 9045C	SW-846 9045D modified	1	13116039402A	04/26/2013 20:25	Clayton C Litchmore	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13121162401B	05/01/2013 22:00	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-506-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7036186
LLI Group # 1385735
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/25/2013 11:10 by SM

Submitted: 04/26/2013 09:15
Reported: 05/10/2013 10:53

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL506 SDG#: PH039-07

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.69	1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.35	1
12969	Anthracene	120-12-7	0.41	J	1.7	0.35	1
12969	Benzo(a)anthracene	56-55-3	0.71	J	1.7	0.69	1
12969	Benzo(a)pyrene	50-32-8	0.82	J	1.7	0.69	1
12969	Benzo(b)fluoranthene	205-99-2	2.0		1.7	0.69	1
12969	Benzo(e)pyrene	192-97-2	18	U	18	3.5	1
12969	Benzo(g,h,i)perylene	191-24-2	1.7	U	1.7	0.69	1
12969	Benzo(k)fluoranthene	207-08-9	8.4		1.7	0.69	1
12969	Butylbenzylphthalate	85-68-7	17	J	19	6.2	1
12969	Di-n-butylphthalate	84-74-2	19	U	19	6.2	1
12969	Chrysene	218-01-9	1.7		1.7	0.35	1
12969	Dibenz(a,h)anthracene	53-70-3	1.7	U	1.7	0.69	1
12969	Diethylphthalate	84-66-2	19	U	19	6.2	1
12969	Dimethylphthalate	131-11-3	19	U	19	6.2	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	7.8	J	19	6.2	1
12969	Fluoranthene	206-44-0	2.0		1.7	0.69	1
12969	Fluorene	86-73-7	1.7	U	1.7	0.69	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.7	U	1.7	0.69	1
12969	1-Methylnaphthalene	90-12-0	0.81	J	1.7	0.69	1
12969	2-Methylnaphthalene	91-57-6	1.2	J	1.7	0.69	1
12969	Naphthalene	91-20-3	1.8		1.7	0.69	1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.69	1
12969	Di-n-octylphthalate	117-84-0	19	U	19	6.2	1
12969	Phenanthrene	85-01-8	1.7	J	1.7	0.69	1
12969	Pyrene	129-00-0	1.7		1.7	0.69	1
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
10592	Aroclor 5432	63496-31-1	34	U	34	10	1
10592	Aroclor 5442	12642-23-8	34	U	34	10	1
10592	Aroclor 5460	11126-42-4	34	U	34	10	1
10592	PCB-1016	12674-11-2	17	U	17	3.4	1
10592	PCB-1221	11104-28-2	17	U	17	5.2	1
10592	PCB-1232	11141-16-5	17	U	17	4.2	1
10592	PCB-1242	53469-21-9	17	U	17	3.4	1
10592	PCB-1248	12672-29-6	17	U	17	3.4	1
10592	PCB-1254	11097-69-1	17	U	17	4.5	1
10592	PCB-1260	11096-82-5	17	U	17	4.0	1
10592	PCB-1262	37324-23-5	17	U	17	3.4	1
10592	PCB-1268	11100-14-4	17	U	17	3.4	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.2	U	5.2	2.1	1
12952	EFH (C15-C20)	n.a.	2.8	J	5.2	2.1	1
12952	EFH (C21-C30)	n.a.	20		5.2	2.1	1
12952	EFH (C30-C40)	n.a.	40		10	4.2	1
12952	EFH (C8-C11)	n.a.	5.2	U	5.2	2.1	1

The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-506-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7036186
LLI Group # 1385735
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/25/2013 11:10 by SM

Submitted: 04/26/2013 09:15
Reported: 05/10/2013 10:53

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL506 SDG#: PH039-07

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	16,000		40.3	7.77	1
06944	Antimony	7440-36-0	0.916	J	4.03	0.504	1
06935	Arsenic	7440-38-2	3.92	J	4.03	0.333	1
06946	Barium	7440-39-3	105		1.01	0.0333	1
06947	Beryllium	7440-41-7	0.573	J	1.01	0.0675	1
07914	Boron	7440-42-8	12.0		10.1	0.837	1
06949	Cadmium	7440-43-9	0.302	J	1.01	0.0333	1
01650	Calcium	7440-70-2	3,680		20.2	4.05	1
06951	Chromium	7440-47-3	26.1		3.02	0.0887	1
06952	Cobalt	7440-48-4	6.43		1.01	0.0907	1
06953	Copper	7440-50-8	16.2		2.02	0.181	1
01654	Iron	7439-89-6	26,000		40.3	3.83	1
06955	Lead	7439-92-1	8.97		3.02	0.474	1
01656	Lithium	7439-93-2	31.8		4.0	0.55	1
01657	Magnesium	7439-95-4	7,080		10.1	1.74	1
06958	Manganese	7439-96-5	371		1.01	0.0837	1
06960	Molybdenum	7439-98-7	0.477	J	2.02	0.171	1
06961	Nickel	7440-02-0	14.6		2.02	0.111	1
10145	Phosphorus	7723-14-0	504		10.1	0.514	1
01662	Potassium	7440-09-7	4,030		101	13.6	1
01667	Sodium	7440-23-5	80.3	J	101	16.8	1
06969	Tin	7440-31-5	2.86	J	10.1	0.222	1
06970	Titanium	7440-32-6	1,360		1.01	0.171	1
06971	Vanadium	7440-62-2	50.0		1.01	0.111	1
06972	Zinc	7440-66-6	61.3		4.03	0.202	1
10146	Zirconium	7440-67-7	2.98	J	5.04	0.837	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.187	J	0.403	0.101	2
06142	Silver	7440-22-4	0.0605	J	0.202	0.0202	2
06144	Strontium	7440-24-6	21.7		0.403	0.0343	2
06145	Thallium	7440-28-0	0.329		0.202	0.0302	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0175		0.0170	0.0102	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045C	n.a.	6.23		0.0100	0.0100	1
	The pH was measured in water at 21.3 C.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	3.7		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-506-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7036186
LLI Group # 1385735
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/25/2013 11:10 by SM

Submitted: 04/26/2013 09:15
Reported: 05/10/2013 10:53

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL506 SDG#: PH039-07

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0231	JQ	1.00	0.0194	1
11031	12378-PeCDD	40321-76-4	0.0965	JBQ	5.01	0.0282	1
11031	123478-HxCDD	39227-28-6	0.130	JBQ	5.01	0.0316	1
11031	123678-HxCDD	57653-85-7	0.257	J	5.01	0.0329	1
11031	123789-HxCDD	19408-74-3	0.290	JQ	5.01	0.0317	1
11031	1234678-HpCDD	35822-46-9	5.55	B	5.01	0.0362	1
11031	OCDD	3268-87-9	59.9	B	10.0	0.0243	1
11031	2378-TCDF	51207-31-9	0.154	J	1.00	0.0353	1
11031	12378-PeCDF	57117-41-6	0.217	JB	5.01	0.0231	1
11031	23478-PeCDF	57117-31-4	0.253	JBQ	5.01	0.0226	1
11031	123478-HxCDF	70648-26-9	0.209	JBQ	5.01	0.0248	1
11031	123678-HxCDF	57117-44-9	0.171	JB	5.01	0.0231	1
11031	123789-HxCDF	72918-21-9	0.110	JB	5.01	0.0251	1
11031	234678-HxCDF	60851-34-5	0.107	JBQ	5.01	0.0239	1
11031	1234678-HpCDF	67562-39-4	0.952	JB	5.01	0.0210	1
11031	1234789-HpCDF	55673-89-7	0.118	JBQ	5.01	0.0297	1
11031	OCDF	39001-02-0	1.96	JB	10.0	0.0253	1
Toxic Equivalents	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.159				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	90	25 - 164
13C12-12378-PeCDD	84	25 - 181
13C12-123478-HxCDD	89	32 - 141
13C12-123678-HxCDD	88	28 - 130
13C12-123789-HxCDD	87	28 - 130
13C12-1234678-HpCDD	84	23 - 140
13C12-OCDD	81	17 - 157
13C12-2378-TCDF	83	24 - 169
13C12-12378-PeCDF	85	24 - 185
13C12-23478-PeCDF	83	21 - 178
13C12-123478-HxCDF	88	26 - 152
13C12-123678-HxCDF	92	26 - 123
13C12-234678-HxCDF	89	28 - 136
13C12-123789-HxCDF	94	29 - 147
13C12-1234678-HpCDF	98	28 - 143
13C12-1234789-HpCDF	81	26 - 138
13C12-OCDF	75	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration

*=This limit was used in the evaluation of the final result

Sample Description: SL-506-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7036186
LLI Group # 1385735
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/25/2013 11:10 by SM

Submitted: 04/26/2013 09:15
Reported: 05/10/2013 10:53

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL506 SDG#: PH039-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-506-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7036186
LLI Group # 1385735
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/25/2013 11:10 by SM

Submitted: 04/26/2013 09:15
Reported: 05/10/2013 10:53

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL506 SDG#: PH039-07

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13119SLC026	05/01/2013	16:43	Joseph M Gambler	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	13119SLC026	04/29/2013	14:00	David S Schrum	1
10592	19a PCBs and PCTs 8082A	SW-846 8082A	1	131200017A	05/03/2013	04:08	Monica M Souders	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	131200017A	05/01/2013	09:00	Olivia Arosemena	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	131200001A	05/02/2013	05:55	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	131200001A	04/30/2013	18:10	Sally L Appleyard	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13123001	05/07/2013	05:44	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13123001	05/03/2013	12:00	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010C	1	131220637001	05/03/2013	12:37	Joanne M Gates	1
06944	Antimony	SW-846 6010C	1	131220637001	05/03/2013	12:37	Joanne M Gates	1
06935	Arsenic	SW-846 6010C	1	131220637001	05/03/2013	12:37	Joanne M Gates	1
06946	Barium	SW-846 6010C	1	131220637001	05/03/2013	12:37	Joanne M Gates	1
06947	Beryllium	SW-846 6010C	1	131220637001	05/03/2013	12:37	Joanne M Gates	1
07914	Boron	SW-846 6010C	1	131220637001	05/03/2013	12:37	Joanne M Gates	1
06949	Cadmium	SW-846 6010C	1	131220637001	05/03/2013	12:37	Joanne M Gates	1
01650	Calcium	SW-846 6010C	1	131220637001	05/03/2013	12:37	Joanne M Gates	1
06951	Chromium	SW-846 6010C	1	131220637001	05/03/2013	12:37	Joanne M Gates	1
06952	Cobalt	SW-846 6010C	1	131220637001	05/03/2013	12:37	Joanne M Gates	1
06953	Copper	SW-846 6010C	1	131220637001	05/03/2013	12:37	Joanne M Gates	1
01654	Iron	SW-846 6010C	1	131220637001	05/03/2013	12:37	Joanne M Gates	1
06955	Lead	SW-846 6010C	1	131220637001	05/03/2013	12:37	Joanne M Gates	1
01656	Lithium	SW-846 6010C	1	131220637001	05/03/2013	12:37	Joanne M Gates	1
01657	Magnesium	SW-846 6010C	1	131220637001	05/03/2013	12:37	Joanne M Gates	1
06958	Manganese	SW-846 6010C	1	131220637001	05/03/2013	12:37	Joanne M Gates	1
06960	Molybdenum	SW-846 6010C	1	131220637001	05/03/2013	12:37	Joanne M Gates	1
06961	Nickel	SW-846 6010C	1	131220637001	05/03/2013	12:37	Joanne M Gates	1
10145	Phosphorus	SW-846 6010C	1	131220637001	05/03/2013	12:37	Joanne M Gates	1
01662	Potassium	SW-846 6010C	1	131220637001	05/03/2013	12:37	Joanne M Gates	1
01667	Sodium	SW-846 6010C	1	131220637001	05/03/2013	12:37	Joanne M Gates	1
06969	Tin	SW-846 6010C	1	131220637001	05/03/2013	12:37	Joanne M Gates	1
06970	Titanium	SW-846 6010C	1	131220637001	05/03/2013	12:37	Joanne M Gates	1
06971	Vanadium	SW-846 6010C	1	131220637001	05/03/2013	12:37	Joanne M Gates	1
06972	Zinc	SW-846 6010C	1	131220637001	05/03/2013	12:37	Joanne M Gates	1
10146	Zirconium	SW-846 6010C	1	131220637001	05/03/2013	12:37	Joanne M Gates	1
06141	Selenium	SW-846 6020A	1	131220637001B	05/06/2013	11:45	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	131220637001A	05/06/2013	11:45	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	131220637001A	05/06/2013	11:45	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	131220637001A	05/06/2013	11:45	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-506-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7036186
LLI Group # 1385735
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/25/2013 11:10 by SM

Submitted: 04/26/2013 09:15
Reported: 05/10/2013 10:53

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL506 SDG#: PH039-07

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00159	3a Mercury 7471A	SW-846 7471B	1	131220638001	05/03/2013 10:06	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	131220637001	05/02/2013 23:16	Annamaria Stipkovits	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	131220638001	05/03/2013 02:45	Annamaria Stipkovits	1
00394	15a pH by 9045C	SW-846 9045D modified	1	13116039402A	04/26/2013 20:25	Clayton C Litchmore	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13121162401B	05/01/2013 22:00	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-508-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7036187
LLI Group # 1385735
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/25/2013 13:20 by SM

Submitted: 04/26/2013 09:15
Reported: 05/10/2013 10:53

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL508 SDG#: PH039-08*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.67	1
12969	Acenaphthylene	208-96-8	1.0	J	1.7	0.34	1
12969	Anthracene	120-12-7	0.64	J	1.7	0.34	1
12969	Benzo(a)anthracene	56-55-3	5.1		1.7	0.67	1
12969	Benzo(a)pyrene	50-32-8	6.4		1.7	0.67	1
12969	Benzo(b)fluoranthene	205-99-2	12		1.7	0.67	1
12969	Benzo(e)pyrene	192-97-2	7.4	J	17	3.4	1
12969	Benzo(g,h,i)perylene	191-24-2	3.6		1.7	0.67	1
12969	Benzo(k)fluoranthene	207-08-9	5.7		1.7	0.67	1
12969	Butylbenzylphthalate	85-68-7	18	U	18	6.1	1
12969	Di-n-butylphthalate	84-74-2	18	U	18	6.1	1
12969	Chrysene	218-01-9	7.6		1.7	0.34	1
12969	Dibenz(a,h)anthracene	53-70-3	1.3	J	1.7	0.67	1
12969	Diethylphthalate	84-66-2	18	U	18	6.1	1
12969	Dimethylphthalate	131-11-3	18	U	18	6.1	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	8.9	J	18	6.1	1
12969	Fluoranthene	206-44-0	9.3		1.7	0.67	1
12969	Fluorene	86-73-7	1.7	U	1.7	0.67	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	3.1		1.7	0.67	1
12969	1-Methylnaphthalene	90-12-0	0.75	J	1.7	0.67	1
12969	2-Methylnaphthalene	91-57-6	1.4	J	1.7	0.67	1
12969	Naphthalene	91-20-3	6.0		1.7	0.67	1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.67	1
12969	Di-n-octylphthalate	117-84-0	18	U	18	6.1	1
12969	Phenanthrene	85-01-8	2.1		1.7	0.67	1
12969	Pyrene	129-00-0	7.8		1.7	0.67	1
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
10592	Aroclor 5432	63496-31-1	33	U	33	9.9	1
10592	Aroclor 5442	12642-23-8	33	U	33	9.9	1
10592	Aroclor 5460	11126-42-4	49		33	9.9	1
10592	PCB-1016	12674-11-2	17	U	17	3.3	1
10592	PCB-1221	11104-28-2	17	U	17	5.1	1
10592	PCB-1232	11141-16-5	17	U	17	4.1	1
10592	PCB-1242	53469-21-9	17	U	17	3.3	1
10592	PCB-1248	12672-29-6	17	U	17	3.3	1
10592	PCB-1254	11097-69-1	110		17	4.4	1
10592	PCB-1260	11096-82-5	17	U	17	3.9	1
10592	PCB-1262	37324-23-5	17	U	17	3.3	1
10592	PCB-1268	11100-14-4	17	U	17	3.3	1
	Project defined QC acceptance limits are not met. All QC is compliant with the laboratory statistically generated limits.						
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.1	U	5.1	2.0	1
12952	EFH (C15-C20)	n.a.	5.1	U	5.1	2.0	1
12952	EFH (C21-C30)	n.a.	25		5.1	2.0	1
12952	EFH (C30-C40)	n.a.	42		10	4.0	1
12952	EFH (C8-C11)	n.a.	5.1	U	5.1	2.0	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-508-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7036187
LLI Group # 1385735
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/25/2013 13:20 by SM

Submitted: 04/26/2013 09:15
Reported: 05/10/2013 10:53

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL508 SDG#: PH039-08*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
	The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.						
Metals		**SW-846 6010C**	**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	10,800		39.3	7.57	1
06944	Antimony	7440-36-0	1.04	J	3.93	0.491	1
06935	Arsenic	7440-38-2	5.76		3.93	0.324	1
06946	Barium	7440-39-3	61.4		0.982	0.0324	1
06947	Beryllium	7440-41-7	0.429	J	0.982	0.0658	1
07914	Boron	7440-42-8	11.8		9.82	0.815	1
06949	Cadmium	7440-43-9	0.260	J	0.982	0.0324	1
01650	Calcium	7440-70-2	2,870		19.6	3.95	1
06951	Chromium	7440-47-3	21.5		2.95	0.0864	1
06952	Cobalt	7440-48-4	8.41		0.982	0.0884	1
06953	Copper	7440-50-8	20.8		1.96	0.177	1
01654	Iron	7439-89-6	27,200		78.5	7.46	2
06955	Lead	7439-92-1	20.2		2.95	0.461	1
01656	Lithium	7439-93-2	23.7		3.9	0.54	1
01657	Magnesium	7439-95-4	4,360		9.82	1.70	1
06958	Manganese	7439-96-5	288		0.982	0.0815	1
06960	Molybdenum	7439-98-7	0.656	J	1.96	0.167	1
06961	Nickel	7440-02-0	12.5		1.96	0.108	1
10145	Phosphorus	7723-14-0	448		9.82	0.501	1
01662	Potassium	7440-09-7	3,230		98.2	13.3	1
01667	Sodium	7440-23-5	69.7	J	98.2	16.4	1
06969	Tin	7440-31-5	3.24	J	9.82	0.216	1
06970	Titanium	7440-32-6	1,010		0.982	0.167	1
06971	Vanadium	7440-62-2	34.9		0.982	0.108	1
06972	Zinc	7440-66-6	70.8		3.93	0.196	1
10146	Zirconium	7440-67-7	2.34	J	4.91	0.815	1
		SW-846 6020A	**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.109	J	0.393	0.0982	2
06142	Silver	7440-22-4	0.0678	J	0.196	0.0196	2
06144	Strontium	7440-24-6	17.2		0.393	0.0334	2
06145	Thallium	7440-28-0	0.294		0.196	0.0295	2
		SW-846 7471B	**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.414		0.0163	0.0098	1
Wet Chemistry		**SW-846 9045D modified**	**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045C	n.a.	7.98		0.0100	0.0100	1
	The pH was measured in water at 21.4 C.						
Wet Chemistry		**EPA 160.3 modified**	**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	1.1		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-508-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7036187
LLI Group # 1385735
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/25/2013 13:20 by SM

Submitted: 04/26/2013 09:15
Reported: 05/10/2013 10:53

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL508 SDG#: PH039-08*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0607	J	0.973	0.0213	1
11031	12378-PeCDD	40321-76-4	0.265	JBQ	4.87	0.0728	1
11031	123478-HxCDD	39227-28-6	0.257	JB	4.87	0.0479	1
11031	123678-HxCDD	57653-85-7	0.772	J	4.87	0.0503	1
11031	123789-HxCDD	19408-74-3	0.505	JQ	4.87	0.0452	1
11031	1234678-HpCDD	35822-46-9	22.6	B	4.87	0.0468	1
11031	OCDD	3268-87-9	200	B	9.73	0.0346	1
11031	2378-TCDF	51207-31-9	0.628	J	0.973	0.113	1
11031	12378-PeCDF	57117-41-6	2.61	JB	4.87	0.0556	1
11031	23478-PeCDF	57117-31-4	0.773	JB	4.87	0.0537	1
11031	123478-HxCDF	70648-26-9	1.64	JB	4.87	0.0520	1
11031	123678-HxCDF	57117-44-9	0.595	JB	4.87	0.0507	1
11031	123789-HxCDF	72918-21-9	0.190	JBQ	4.87	0.0471	1
11031	234678-HxCDF	60851-34-5	0.481	JB	4.87	0.0503	1
11031	1234678-HpCDF	67562-39-4	5.26	B	4.87	0.0292	1
11031	1234789-HpCDF	55673-89-7	0.386	JBQ	4.87	0.0423	1
11031	OCDF	39001-02-0	12.6	B	9.73	0.0317	1
Toxic Equivalents	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	1.15				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	84	25 - 164
13C12-12378-PeCDD	63	25 - 181
13C12-123478-HxCDD	66	32 - 141
13C12-123678-HxCDD	65	28 - 130
13C12-123789-HxCDD	68	28 - 130
13C12-1234678-HpCDD	64	23 - 140
13C12-OCDD	66	17 - 157
13C12-2378-TCDF	68	24 - 169
13C12-12378-PeCDF	66	24 - 185
13C12-23478-PeCDF	65	21 - 178
13C12-123478-HxCDF	67	26 - 152
13C12-123678-HxCDF	69	26 - 123
13C12-234678-HxCDF	67	28 - 136
13C12-123789-HxCDF	80	29 - 147
13C12-1234678-HpCDF	75	28 - 143
13C12-1234789-HpCDF	59	26 - 138
13C12-OCDF	57	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration

*=This limit was used in the evaluation of the final result

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Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: SL-508-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7036187
LLI Group # 1385735
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/25/2013 13:20 by SM

Submitted: 04/26/2013 09:15
Reported: 05/10/2013 10:53

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL508 SDG#: PH039-08*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-508-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7036187
LLI Group # 1385735
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/25/2013 13:20 by SM

Submitted: 04/26/2013 09:15
Reported: 05/10/2013 10:53

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL508 SDG#: PH039-08*

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13119SLC026	05/01/2013	17:14	Joseph M Gambler	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	13119SLC026	04/29/2013	14:00	David S Schrum	1
10592	19a PCBs and PCTs 8082A	SW-846 8082A	1	131200017A	05/03/2013	04:26	Monica M Souders	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	131200017A	05/01/2013	09:00	Olivia Arosemena	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	131200001A	05/02/2013	09:01	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	131200001A	04/30/2013	18:10	Sally L Appleyard	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13123001	05/07/2013	17:13	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13123001	05/03/2013	12:00	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010C	1	131220637001	05/03/2013	12:41	Joanne M Gates	1
06944	Antimony	SW-846 6010C	1	131220637001	05/03/2013	12:41	Joanne M Gates	1
06935	Arsenic	SW-846 6010C	1	131220637001	05/03/2013	12:41	Joanne M Gates	1
06946	Barium	SW-846 6010C	1	131220637001	05/03/2013	12:41	Joanne M Gates	1
06947	Beryllium	SW-846 6010C	1	131220637001	05/03/2013	12:41	Joanne M Gates	1
07914	Boron	SW-846 6010C	1	131220637001	05/03/2013	12:41	Joanne M Gates	1
06949	Cadmium	SW-846 6010C	1	131220637001	05/03/2013	12:41	Joanne M Gates	1
01650	Calcium	SW-846 6010C	1	131220637001	05/03/2013	12:41	Joanne M Gates	1
06951	Chromium	SW-846 6010C	1	131220637001	05/03/2013	12:41	Joanne M Gates	1
06952	Cobalt	SW-846 6010C	1	131220637001	05/03/2013	12:41	Joanne M Gates	1
06953	Copper	SW-846 6010C	1	131220637001	05/03/2013	12:41	Joanne M Gates	1
01654	Iron	SW-846 6010C	1	131220637001	05/03/2013	17:59	Katlin N Cataldi	2
06955	Lead	SW-846 6010C	1	131220637001	05/03/2013	12:41	Joanne M Gates	1
01656	Lithium	SW-846 6010C	1	131220637001	05/03/2013	12:41	Joanne M Gates	1
01657	Magnesium	SW-846 6010C	1	131220637001	05/03/2013	12:41	Joanne M Gates	1
06958	Manganese	SW-846 6010C	1	131220637001	05/03/2013	12:41	Joanne M Gates	1
06960	Molybdenum	SW-846 6010C	1	131220637001	05/03/2013	12:41	Joanne M Gates	1
06961	Nickel	SW-846 6010C	1	131220637001	05/03/2013	12:41	Joanne M Gates	1
10145	Phosphorus	SW-846 6010C	1	131220637001	05/03/2013	12:41	Joanne M Gates	1
01662	Potassium	SW-846 6010C	1	131220637001	05/03/2013	12:41	Joanne M Gates	1
01667	Sodium	SW-846 6010C	1	131220637001	05/03/2013	12:41	Joanne M Gates	1
06969	Tin	SW-846 6010C	1	131220637001	05/03/2013	12:41	Joanne M Gates	1
06970	Titanium	SW-846 6010C	1	131220637001	05/03/2013	12:41	Joanne M Gates	1
06971	Vanadium	SW-846 6010C	1	131220637001	05/03/2013	12:41	Joanne M Gates	1
06972	Zinc	SW-846 6010C	1	131220637001	05/03/2013	12:41	Joanne M Gates	1
10146	Zirconium	SW-846 6010C	1	131220637001	05/03/2013	12:41	Joanne M Gates	1
06141	Selenium	SW-846 6020A	1	131220637001B	05/06/2013	11:47	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	131220637001A	05/06/2013	11:47	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	131220637001A	05/06/2013	11:47	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	131220637001A	05/06/2013	11:47	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-508-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7036187
LLI Group # 1385735
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/25/2013 13:20 by SM

Submitted: 04/26/2013 09:15
Reported: 05/10/2013 10:53

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL508 SDG#: PH039-08*

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00159	3a Mercury 7471A	SW-846 7471B	1	131220638001	05/03/2013 10:08	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	131220637001	05/02/2013 23:16	Annamaria Stipkovits	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	131220638001	05/03/2013 02:45	Annamaria Stipkovits	1
00394	15a pH by 9045C	SW-846 9045D modified	1	13116039402A	04/26/2013 20:25	Clayton C Litchmore	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13121162401B	05/01/2013 22:00	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1385735
Reported: 05/10/13 at 10:53 AM

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 13119SLC026	Sample number(s): 7036177,7036179-7036181,7036183-7036187									
Acenaphthene	1.7	U	1.7	0.67	ug/kg	99		69-114		
Acenaphthylene	1.7	U	1.7	0.33	ug/kg	100		71-113		
Anthracene	1.7	U	1.7	0.33	ug/kg	100		75-116		
Benzo(a)anthracene	1.7	U	1.7	0.67	ug/kg	98		76-115		
Benzo(a)pyrene	1.7	U	1.7	0.67	ug/kg	99		76-117		
Benzo(b)fluoranthene	1.7	U	1.7	0.67	ug/kg	115		77-129		
Benzo(e)pyrene	17	U	17.	3.3	ug/kg	100		70-130		
Benzo(g,h,i)perylene	1.7	U	1.7	0.67	ug/kg	96		64-120		
Benzo(k)fluoranthene	1.7	U	1.7	0.67	ug/kg	98		71-120		
Butylbenzylphthalate	18	U	18.	6.0	ug/kg	89		65-131		
Di-n-butylphthalate	18	U	18.	6.0	ug/kg	99		67-140		
Chrysene	1.7	U	1.7	0.33	ug/kg	97		78-111		
Dibenz(a,h)anthracene	1.7	U	1.7	0.67	ug/kg	97		65-124		
Diethylphthalate	18	U	18.	6.0	ug/kg	101		68-125		
Dimethylphthalate	18	U	18.	6.0	ug/kg	99		70-130		
Bis(2-Ethylhexyl)phthalate	18	U	18.	6.0	ug/kg	86		67-143		
Fluoranthene	1.7	U	1.7	0.67	ug/kg	95		68-119		
Fluorene	1.7	U	1.7	0.67	ug/kg	104		75-123		
Indeno(1,2,3-cd)pyrene	1.7	U	1.7	0.67	ug/kg	98		66-122		
1-Methylnaphthalene	1.7	U	1.7	0.67	ug/kg	101		74-113		
2-Methylnaphthalene	1.7	U	1.7	0.67	ug/kg	100		78-121		
Naphthalene	1.7	U	1.7	0.67	ug/kg	100		64-120		
N-Nitrosodimethylamine	1.7	U	1.7	0.67	ug/kg	98		30-125		
Di-n-octylphthalate	18	U	18.	6.0	ug/kg	92		57-133		
Phenanthrene	1.7	U	1.7	0.67	ug/kg	97		72-110		
Pyrene	1.7	U	1.7	0.67	ug/kg	90		71-120		
Batch number: 13120A16A	Sample number(s): 7036184									
11a TPH by EPA 8015B GRO	1.0	U	1.0	0.2	mg/kg	96	91	67-119	6	30
Batch number: 13121A20A	Sample number(s): 7036178									
TPH-GRO S.CA water C5-C12	50	U	50.	20	ug/l	98	103	75-135	5	30
Batch number: 131200017A	Sample number(s): 7036177,7036179-7036181,7036183-7036187									
Aroclor 5432	33	U	33.	10	ug/kg					
Aroclor 5442	33	U	33.	10	ug/kg	49	73	36-106	40*	30
Aroclor 5460	33	U	33.	10	ug/kg					
PCB-1016	17	U	17.	3.3	ug/kg	104		80-120		
PCB-1221	17	U	17.	5.1	ug/kg					
PCB-1232	17	U	17.	4.1	ug/kg					
PCB-1242	17	U	17.	3.3	ug/kg					
PCB-1248	17	U	17.	3.3	ug/kg					
PCB-1254	17	U	17.	4.4	ug/kg					

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(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1385735
Reported: 05/10/13 at 10:53 AM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
PCB-1260	17	U	17.	3.9	ug/kg	99		72-120		
PCB-1262	17	U	17.	3.3	ug/kg					
PCB-1268	17	U	17.	3.3	ug/kg					
Batch number: 131200001A	Sample number(s): 7036177,7036179-7036181,7036183-7036187									
EFH (C12-C14)	5.0	U	5.0	2.0	mg/kg	93		70-123		
EFH (C15-C20)	5.0	U	5.0	2.0	mg/kg	99		75-128		
EFH (C21-C30)	5.0	U	5.0	2.0	mg/kg	97		64-134		
EFH (C30-C40)	10	U	10.	4.0	mg/kg	63*		65-128		
EFH (C8-C11)	5.0	U	5.0	2.0	mg/kg	80		49-107		
Batch number: 131220637001	Sample number(s): 7036177,7036179-7036187									
Aluminum	40.0	U	40.0	7.71	mg/kg	101		80-120		
Antimony	4.00	U	4.00	0.500	mg/kg	104		80-120		
Arsenic	4.00	U	4.00	0.330	mg/kg	104		80-120		
Barium	1.00	U	1.00	0.0330	mg/kg	104		80-120		
Beryllium	1.00	U	1.00	0.0670	mg/kg	103		80-120		
Boron	10.0	U	10.0	0.830	mg/kg	99		80-120		
Cadmium	1.00	U	1.00	0.0330	mg/kg	103		80-120		
Calcium	20.0	U	20.0	4.02	mg/kg	103		80-120		
Chromium	3.00	U	3.00	0.0880	mg/kg	102		80-120		
Cobalt	1.00	U	1.00	0.0900	mg/kg	106		80-120		
Copper	2.00	U	2.00	0.180	mg/kg	109		80-120		
Iron	40.0	U	40.0	3.80	mg/kg	101		80-120		
Lead	3.00	U	3.00	0.470	mg/kg	106		80-120		
Lithium	4.0	U	4.0	0.55	mg/kg	103		80-120		
Magnesium	10.0	U	10.0	1.73	mg/kg	99		80-120		
Manganese	1.00	U	1.00	0.0830	mg/kg	105		80-120		
Molybdenum	2.00	U	2.00	0.170	mg/kg	102		80-120		
Nickel	2.00	U	2.00	0.110	mg/kg	107		80-120		
Phosphorus	1.44	J	10.0	0.510	mg/kg	106		80-120		
Potassium	100 U		100.	13.5	mg/kg	100		80-120		
Sodium	100 U		100.	16.7	mg/kg	100		80-120		
Tin	1.47	J	10.0	0.220	mg/kg	103		80-120		
Titanium	1.00	U	1.00	0.170	mg/kg	103		80-120		
Vanadium	1.00	U	1.00	0.110	mg/kg	102		80-120		
Zinc	4.00	U	4.00	0.200	mg/kg	105		80-120		
Zirconium	5.00	U	5.00	0.830	mg/kg	101		80-120		
Batch number: 131220637001A	Sample number(s): 7036177,7036179-7036187									
Silver	0.200	U	0.200	0.0200	mg/kg	109		80-120		
Strontium	0.400	U	0.400	0.0340	mg/kg	110		80-120		
Thallium	0.200	U	0.200	0.0300	mg/kg	105		80-120		
Batch number: 131220637001B	Sample number(s): 7036177,7036179-7036187									
Selenium	0.400	U	0.400	0.100	mg/kg	107		80-120		
Batch number: 131220638001	Sample number(s): 7036177,7036179-7036187									
3a Mercury 7471A	0.0167	U	0.0167	0.0100	mg/kg	108		85-120		
Batch number: 13116039402A	Sample number(s): 7036177,7036179,7036182-7036187									
15a pH by 9045C						99		95-105		
Batch number: 13121162401A	Sample number(s): 7036177,7036183									

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1385735
Reported: 05/10/13 at 10:53 AM

Analysis Name	Blank Result	Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
14a Moisture Content by 160.3					99		80-120		
Batch number: 13121162401B	Sample number(s): 7036184-7036187								
14a Moisture Content by 160.3					99		80-120		
Batch number: 13127162401A	Sample number(s): 7036179-7036182								
14a Moisture Content by 160.3					100		80-120		
14a Moisture Content by 160.3					100		80-120		
14a Moisture Content by 160.3					100		80-120		

Analysis Name	Blank Result	Blank MRL**	Blank EDL	Report Units	OPR %REC	OPRD %REC	OPR/OPRD Limits	RPD	RPD Max
Batch number: 13123001	Sample number(s): 7036177,7036179-7036181,7036183,7036185-7036187								
2378-TCDD	1.00 U	1.00	0.0355	ng/kg	89		67-158		
12378-PeCDD	0.0477 J	5.00	0.0338	ng/kg	92		70-142		
123478-HxCDD	0.0263 J	5.00	0.0237	ng/kg	100		70-164		
123678-HxCDD	5.00 U	5.00	0.0245	ng/kg	97		76-134		
123789-HxCDD	5.00 U	5.00	0.0241	ng/kg	97		64-162		
1234678-HpCDD	0.0789 J	5.00	0.0258	ng/kg	95		70-140		
OCDD	0.143 J	10.0	0.0248	ng/kg	94		78-144		
2378-TCDF	1.00 U	1.00	0.0282	ng/kg	92		75-158		
12378-PeCDF	0.0390 J	5.00	0.0181	ng/kg	96		80-134		
23478-PeCDF	0.0517 J	5.00	0.0177	ng/kg	98		68-160		
123478-HxCDF	0.0360 J	5.00	0.0127	ng/kg	98		72-134		
123678-HxCDF	0.0277 J	5.00	0.0118	ng/kg	96		84-130		
123789-HxCDF	0.0157 J	5.00	0.0129	ng/kg	101		78-130		
234678-HxCDF	0.0328 J	5.00	0.0115	ng/kg	98		70-156		
1234678-HpCDF	0.0301 J	5.00	0.0110	ng/kg	97		82-122		
1234789-HpCDF	0.0373 J	5.00	0.0157	ng/kg	96		78-138		
OCDF	0.125 J	10.0	0.0440	ng/kg	99		63-170		
Batch number: 13128001	Sample number(s): 7036184								
2378-TCDD	1.00 U	1.00	0.0176	ng/kg	89		67-158		
12378-PeCDD	0.0260 J	5.00	0.0180	ng/kg	95		70-142		
123478-HxCDD	5.00 U	5.00	0.0138	ng/kg	102		70-164		
123678-HxCDD	0.0224 J	5.00	0.0143	ng/kg	100		76-134		
123789-HxCDD	0.0332 J	5.00	0.0140	ng/kg	100		64-162		
1234678-HpCDD	0.0475 J	5.00	0.0167	ng/kg	99		70-140		
OCDD	0.242 J	10.0	0.0151	ng/kg	99		78-144		
2378-TCDF	1.00 U	1.00	0.0162	ng/kg	98		75-158		
12378-PeCDF	0.0349 J	5.00	0.00938	ng/kg	99		80-134		
23478-PeCDF	0.0209 J	5.00	0.00967	ng/kg	101		68-160		
123478-HxCDF	0.0342 J	5.00	0.00936	ng/kg	102		72-134		
123678-HxCDF	0.0236 J	5.00	0.00808	ng/kg	100		84-130		
123789-HxCDF	0.0403 J	5.00	0.00946	ng/kg	102		78-130		
234678-HxCDF	0.0367 J	5.00	0.00856	ng/kg	102		70-156		
1234678-HpCDF	0.0382 J	5.00	0.00608	ng/kg	100		82-122		
1234789-HpCDF	0.0528 J	5.00	0.0108	ng/kg	101		78-138		
OCDF	0.136 J	10.0	0.0266	ng/kg	101		63-170		
Batch number: 13123001	Sample number(s): 7036177,7036179-7036181,7036183,7036185-7036187								
TEQ WHO 2005 - EDLx0.0	0.00836			ng/kg					
Batch number: 13128001	Sample number(s): 7036184								

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1385735
Reported: 05/10/13 at 10:53 AM

Analysis Name	Blank Result	Blank MRL**	Blank EDL	Report Units	OPR %REC	OPRD %REC	OPR/OPRD Limits	RPD	RPD Max
TEQ WHO 2005 - EDLx0.0	0.00642			ng/kg					

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 13119SLC026	Sample number(s): 7036177,7036179-7036181,7036183-7036187 UNSPK: 7036179								
Acenaphthene	95	91	48-127	4	30				
Acenaphthylene	88	86	49-121	2	30				
Anthracene	94	87	52-126	8	30				
Benzo(a)anthracene	159*	85	32-135	55*	30				
Benzo(a)pyrene	143*	85	36-138	45*	30				
Benzo(b)fluoranthene	163*	91	26-142	43*	30				
Benzo(e)pyrene	123	86	70-130	31*	30				
Benzo(g,h,i)perylene	74	50	33-141	35*	30				
Benzo(k)fluoranthene	121	88	47-129	25	30				
Butylbenzylphthalate	103	106	59-153	3	30				
Di-n-butylphthalate	101	97	62-154	4	30				
Chrysene	163*	81	29-148	55*	30				
Dibenz(a,h)anthracene	78	65	34-125	17	30				
Diethylphthalate	106	103	76-127	3	30				
Dimethylphthalate	91	89	62-136	3	30				
Bis(2-Ethylhexyl)phthalate	76	63	39-167	10	30				
Fluoranthene	205*	85	47-135	70*	30				
Fluorene	90	89	50-129	1	30				
Indeno(1,2,3-cd)pyrene	87	61	17-136	32*	30				
1-Methylnaphthalene	98	98	50-131	0	30				
2-Methylnaphthalene	98	98	28-144	0	30				
Naphthalene	97	96	31-148	0	30				
N-Nitrosodimethylamine	93	93	48-113	0	30				
Di-n-octylphthalate	108	116	52-162	8	30				
Phenanthrene	124	92	29-142	28	30				
Pyrene	195*	76	26-143	75*	30				
Batch number: 131200017A	Sample number(s): 7036177,7036179-7036181,7036183-7036187 UNSPK: 7036179								
PCB-1016	94	99	16-146	5	50				
PCB-1260	86	91	40-134	5	50				
Batch number: 131200001A	Sample number(s): 7036177,7036179-7036181,7036183-7036187 UNSPK: 7036179								
EFH (C12-C14)	147*	137*	49-123	4	20				
EFH (C15-C20)	418 (2)	352 (2)	49-123	7	20				
EFH (C21-C30)	1125 (2)	986 (2)	49-123	7	20				
EFH (C30-C40)	406 (2)	755 (2)	49-123	14	20				
EFH (C8-C11)	140*	151*	49-123	4	20				

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1385735
Reported: 05/10/13 at 10:53 AM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 131220637001	Sample number(s): 7036177,7036179-7036187 UNSPK: 7036179 BKG: 7036179								
Aluminum	1523 (2)	1646 (2)	75-125	2	20	11,400	10,900	5	20
Antimony	57*	57*	75-125	0	20	4.52	3.96 U	200* (1)	20
Arsenic	102	102	75-125	0	20	4.34	3.98	9 (1)	20
Barium	101	98	75-125	2	20	101	88.6	13	20
Beryllium	106	106	75-125	0	20	0.451 J	0.421 J	7 (1)	20
Boron	101	101	75-125	1	20	15.3	12.8	18 (1)	20
Cadmium	84	84	75-125	0	20	1.16	0.273 J	124* (1)	20
Calcium	275 (2)	-53 (2)	75-125	16	20	7,750	5,970	26*	20
Chromium	110	118	75-125	4	20	15.0	16.5	9	20
Cobalt	95	95	75-125	0	20	7.43	3.86	63* (1)	20
Copper	115	113	75-125	1	20	12.1	11.6	4	20
Iron	1009 (2)	1510 (2)	75-125	3	20	17,500	17,100	2	20
Lead	50*	44*	75-125	3	20	23.2	13.4	54* (1)	20
Lithium	107	106	75-125	1	20	19.7	20.1	2 (1)	20
Magnesium	264 (2)	282 (2)	75-125	1	20	4,380	4,170	5	20
Manganese	37 (2)	41 (2)	75-125	0	20	346	290	18	20
Molybdenum	99	98	75-125	0	20	2.73	0.348 J	155* (1)	20
Nickel	105	106	75-125	0	20	8.69	9.72	11 (1)	20
Phosphorus	-28 (2)	-49 (2)	75-125	3	20	663	462	36*	20
Potassium	129*	135*	75-125	1	20	3,020	2,970	2	20
Sodium	104	102	75-125	1	20	86.7 J	77.4 J	11 (1)	20
Tin	94	94	75-125	0	20	10.6	2.69 J	119* (1)	20
Titanium	315 (2)	362 (2)	75-125	4	20	953	968	2	20
Vanadium	111	111	75-125	0	20	28.6	27.7	3	20
Zinc	107	103	75-125	2	20	69.3	62.6	10	20
Zirconium	98	98	75-125	0	20	2.43 J	2.34 J	4 (1)	20
Batch number: 131220637001A	Sample number(s): 7036177,7036179-7036187 UNSPK: 7036179 BKG: 7036179								
Silver	111	113	75-125	2	20	0.0343 J	0.0481 J	33* (1)	20
Strontium	39 (2)	88 (2)	75-125	9	20	36.6	36.0	2	20
Thallium	109	109	75-125	0	20	0.225	0.245	9 (1)	20
Batch number: 131220637001B	Sample number(s): 7036177,7036179-7036187 UNSPK: 7036179 BKG: 7036179								
Selenium	111	108	75-125	2	20	0.185 J	0.220 J	17 (1)	20
Batch number: 131220638001	Sample number(s): 7036177,7036179-7036187 UNSPK: 7036179 BKG: 7036179								
3a Mercury 7471A	109	101	65-135	9	20	0.0567	0.0552	3 (1)	20
Batch number: 13116039402A	Sample number(s): 7036177,7036179,7036182-7036187 BKG: 7036179								
15a pH by 9045C						7.32	7.34	0	3
Batch number: 13121162401A	Sample number(s): 7036177,7036183 BKG: P036179								
14a Moisture Content by 160.3						4.6	6.1	28*	20
Batch number: 13121162401B	Sample number(s): 7036184-7036187 BKG: 7036184								
14a Moisture Content by 160.3						3.4	3.4	1	20
Batch number: 13127162401A	Sample number(s): 7036179-7036182 BKG: 7036179								
14a Moisture Content by 160.3						2.4	2.6	6	20

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1385735
Reported: 05/10/13 at 10:53 AM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
14a Moisture Content by 160.3						2.4	2.6	6	20
14a Moisture Content by 160.3						2.4	2.6	6	20

Batch number: 13123001 Sample number(s): 7036177,7036179-7036181,7036183,7036185-7036187 UNSPK: 7036179

2378-TCDD	87	89	40-135	1	20
12378-PeCDD	92	93	40-135	1	20
123478-HxCDD	100	101	40-135	0	20
123678-HxCDD	94	95	40-135	0	20
123789-HxCDD	97	97	40-135	1	20
1234678-HpCDD	83	90	40-135	6	20
OCDD	30*	61	40-135	17	20
2378-TCDF	93	93	40-135	1	20
12378-PeCDF	97	96	40-135	2	20
23478-PeCDF	98	97	40-135	1	20
123478-HxCDF	100	101	40-135	0	20
123678-HxCDF	98	96	40-135	3	20
123789-HxCDF	98	99	40-135	0	20
234678-HxCDF	98	99	40-135	0	20
1234678-HpCDF	96	98	40-135	1	20
1234789-HpCDF	97	96	40-135	1	20
OCDF	96	97	40-135	1	20

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed
unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 7a SVOC SIM EPA 8270D
Batch number: 13119SLC026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
7036177	90	100	99
7036179	91	98	96
7036180	88	97	94
7036181	86	97	96
7036183	87	95	88
7036184	89	103	96
7036185	92	105	98
7036186	89	94	94
7036187	89	96	95
Blank	89	102	98
LCS	90	102	99
MS	88	97	94
MSD	86	97	96
Limits:	54-129	61-134	55-129

Analysis Name: 11a TPH by EPA 8015B GRO

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**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1385735
Reported: 05/10/13 at 10:53 AM

Surrogate Quality Control

Batch number: 13120A16A

	Trifluorotoluene-F
7036184	82
Blank	86
LCS	88
LCSD	83
Limits:	61-122

Analysis Name: 11b TPH by EPA 8015B GRO
Batch number: 13121A20A

	Trifluorotoluene-F
7036178	88
Blank	88
LCS	113
LCSD	113
Limits:	63-135

Analysis Name: 19a PCBs and PCTs 8082A
Batch number: 131200017A

	Tetrachloro-m-xylene	Decachlorobiphenyl
7036177	126*	109
7036179	116	98
7036180	124*	112
7036181	123*	112
7036183	118	106
7036184	118	96
7036185	117	105
7036186	108	90
7036187	124*	107
Blank	129*	112
LCS	132*	116
LCSD	138*	116
MS	124*	112
MSD	123*	112
Limits:	45-120	45-120

Analysis Name: 10a TPH by EPA 8015B (DRO)
Batch number: 131200001A

	Chlorobenzene	Orthoterphenyl
7036177	102	106
7036179	89	77
7036180	102	85
7036181	95	82
7036183	98	89
7036184	94	96
7036185	81	88
7036186	89	89
7036187	93	98
Blank	99	104

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1385735
Reported: 05/10/13 at 10:53 AM

Surrogate Quality Control

LCS	93	97
MS	102	85
MSD	95	82
Limits:	37-125	66-123

Analysis Name: 23a Dioxin/Furan by EPA 1613B
Batch number: 13123001

	13C12-2378-TCDD	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF	13C12-234678-HxCDF	13C12-123789-HxCDF
7036177	77	51	51	53	54	67
7036179	80	56	57	59	59	75
7036180	81	54	55	56	58	77
7036181	78	67	72	74	71	78
7036183	79	61	63	66	63	74
7036185	77	59	63	65	62	74
7036186	90	83	88	92	89	94
7036187	84	65	67	69	67	80
Blank	79	80	92	95	91	92
MS	81	54	55	56	58	77
MSD	78	67	72	74	71	78
OPR	83	47	45	47	52	73
Limits:	25-164	21-178	26-152	26-123	28-136	29-147

	13C12-1234678-HpCDF	13C12-1234789-HpCDF	13C12-OCDF	13C12-12378-PeCDD	13C12-123478-HxCDD	13C12-123678-HxCDD
7036177	54	44	40	51	51	51
7036179	57	50	46	56	57	55
7036180	54	50	47	53	55	54
7036181	71	62	59	65	69	70
7036183	70	50	46	60	62	61
7036185	65	50	46	56	62	61
7036186	98	81	75	84	89	88
7036187	75	59	57	63	66	65
Blank	106	84	79	83	90	92
MS	54	50	47	53	55	54
MSD	71	62	59	65	69	70
OPR	50	45	42	48	45	46
Limits:	28-143	26-138	17-157	25-181	32-141	28-130

	13C12-123789-HxCDD	13C12-1234678-HpCDD	13C12-OCDD	13C12-2378-TCDF	13C12-12378-PeCDF
7036177	55	48	49	60	53
7036179	58	54	52	62	58
7036180	58	52	53	62	54
7036181	68	65	62	65	64
7036183	62	58	55	62	61
7036185	60	55	53	61	57
7036186	87	84	81	83	85
7036187	68	64	66	68	66
Blank	89	90	87	72	82
MS	58	52	53	62	54
MSD	68	65	62	65	64
OPR	56	48	52	61	52

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1385735
Reported: 05/10/13 at 10:53 AM

Surrogate Quality Control

Limits:	28-130	23-140	17-157	24-169	24-185	

Analysis Name: 23a Dioxin/Furan by EPA 1613B
Batch number: 13128001

	13C12-2378-TCDD	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF	13C12-234678-HxCDF	13C12-123789-HxCDF
7036184	76	73	82	87	81	84
Blank	82	76	86	94	84	85
OPR	85	82	91	97	90	91
Limits:	25-164	21-178	26-152	26-123	28-136	29-147

	13C12-1234678-HpCDF	13C12-1234789-HpCDF	13C12-OCDF	13C12-12378-PeCDD	13C12-123478-HxCDD	13C12-123678-HxCDD
7036184	96	72	69	74	80	84
Blank	107	70	63	79	86	86
OPR	107	74	64	85	91	90
Limits:	28-143	26-138	17-157	25-181	32-141	28-130

	13C12-123789-HxCDD	13C12-1234678-HpCDD	13C12-OCDD	13C12-2378-TCDF	13C12-12378-PeCDF
7036184	78	77	77	68	77
Blank	83	82	78	71	81
OPR	88	86	83	75	85
Limits:	28-130	23-140	17-157	24-169	24-185

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

acct#13013 Cup#1385735 Sample#7036177-87

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 4/25/2013
CarrierName: FedEx
AirbillNo: 7996 1755 0303

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20130425-01
Cooler #: 1
Lab: Lancaster
Lab Phone: 717-556-7259
Lab Address: 2425 New Holland Pike, Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Other Analysis/Notes
SL-507-SA7-SB-0.0-0.5	4/24/13 15:05	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-507-SA7-SB-0.0-0.5	4/24/13 15:05	SO	None	1 - 4 oz glass	10 day													X																			
TB-042413	4/24/13 08:00	WQ	HCl	3 - 40 mL Vial	10 day																				X												
SL-519-SA7-SB-0.0-0.5MS	4/25/13 08:45	SO	None	6 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-519-SA7-SB-0.0-0.5MS	4/25/13 08:45	SO	None	1 - 8 oz glass	10 day													X																			
SL-819-SA7-SB-0.0-0.5	4/25/13 08:50	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-819-SA7-SB-0.0-0.5	4/25/13 08:50	SO	None	1 - 4 oz glass	10 day													X																			
SL-519-SA7-SB-2.0-3.0	4/25/13 09:50	SO	None	1 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-519-SA7-SB-2.0-3.0	4/25/13 09:50	SO	None	1 - 16 oz glass	10 day	X	X					X		X	X											X											
SL-519-SA7-SB-2.0-3.0	4/25/13 09:50	SO	None	1 - 4 oz glass	10 day													X																			
SL-519-SA7-SB-2.0-3.0	4/25/13 09:50	SO	None	1 - Encore	10 day																				X												
SL-509-SA7-SB-0.0-0.5	4/25/13 10:40	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-509-SA7-SB-0.0-0.5	4/25/13 10:40	SO	None	1 - 4 oz glass	10 day													X																			
SL-506-SA7-SB-0.0-0.5	4/25/13 11:10	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-506-SA7-SB-0.0-0.5	4/25/13 11:10	SO	None	1 - 4 oz glass	10 day													X																			
SL-508-SA7-SB-0.0-0.5	4/25/13 13:20	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-508-SA7-SB-0.0-0.5	4/25/13 13:20	SO	None	1 - 4 oz glass	10 day													X																			

acct#13013 Cp#1385735 sample#7036177-87

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped:	4/25/2013	Contact Name:	Pam Hartman	COC No:	20130425-01
CarrierName:	FedEx	Contact Phone:	(818)466-8007	Cooler #:	1
AirbillNo:	7996 1755 0303			Lab:	Lancaster
				Lab Phone:	717-556-7259
				Lab Address	2425 New Holland Pike Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Other Analysis/Notes

Special Instructions:

Sampler: Steve Mercer

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
V. Cotz	4/25/13										
										4/26/13	0915

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G#1385735

Environmental Sample Administration Receipt Documentation Log

Client/Project: CDM

Date of Receipt: 4/26/13

Time of Receipt: 0915

Source Code: 50

Shipping Container Sealed: YES NO

Custody Seal Present * : YES NO

* Custody seal was intact unless otherwise noted in the discrepancy section

Package: Chilled Not Chilled

Temperature of Shipping Containers							
Cooler #	Thermometer ID	Temperature (°C)	Temp Bottle (TB) or Surface Temp (ST)	Wet Ice (WI) or Dry Ice (DI) or Ice Packs (IP)	Ice Present? Y/N	Loose (L) Bagged Ice (B) or NA	Comments
1	2783	3.2	TB	WI	Y	B	
2							
3							
4							
5							
6							

Number of Trip Blanks received NOT listed on chain of custody: Ø

Paperwork Discrepancy/Unpacking Problems:

Unpacker Signature/Emp#: 964 Date/Time: 4/26/13

Issued by Dept. 6042 Management

2174.06

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	**BMQL**	Below Minimum Quantitation Level
N.D.	none detected	**MPN**	Most Probable Number
TNTC	Too Numerous To Count	**CP Units**	cobalt-chloroplatinate units
IU	International Units	**NTU**	nephelometric turbidity units
umhos/cm	micromhos/cm	**ng**	nanogram(s)
C	degrees Celsius	**F**	degrees Fahrenheit
meq	milliequivalents	**lb.**	pound(s)
g	gram(s)	**kg**	kilogram(s)
µg	microgram(s)	**mg**	milligram(s)
mL	milliliter(s)	**L**	liter(s)
m3	cubic meter(s)	**µL**	microliter(s)
		pg/L	picogram/liter

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

J estimated value – The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	**B**	Value is <CRDL, but ≥IDL
B	Analyte was also detected in the blank	**E**	Estimated due to interference
C	Pesticide result confirmed by GC/MS	**M**	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	**N**	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	**S**	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	**U**	Compound was not detected
P	Concentration difference between primary and confirmation columns >25%	**W**	Post digestion spike out of control limits
U	Compound was not detected	*****	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	**+**	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as “analyze immediately” are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL LANCASTER LABORATORIES BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF LANCASTER LABORATORIES AND (B) WHETHER LANCASTER LABORATORIES HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Lancaster Laboratories which includes any conditions that vary from the Standard Terms and Conditions, and Lancaster hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

May 09, 2013

Project: Phase 3 Subarea 7

Submittal Date: 04/27/2013
Group Number: 1386003
SDG: PH040
PO Number: 1204-002-001-AL
State of Sample Origin: CA

Client Sample Description	Lancaster Labs (LLI) #
SL-543A-SA7-SB-0.0-0.5 Soil	7037614
SL-543B-SA7-SB-0.0-0.5 Soil	7037615
SL-543C-SA7-SB-0.0-0.5 Soil	7037616
SL-543D-SA7-SB-0.0-0.5 Soil	7037617
TB-042613 Water	7037618
SL-562-SA7-SB-0.0-0.5 Soil	7037619
SL-562-SA7-SB-2.0-3.0 Soil	7037620

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO	LLI	Attn: Nicole Maljovec
ELECTRONIC COPY TO	Eurofins Lancaster Labs	Attn: Natalie Luciano

Respectfully Submitted,

Nicole L. Maljovec
Principal Specialist Group Leader

(717) 556-7259

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Analysis Report

Sample Description: SL-543A-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7037614
LLI Group # 1386003
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/25/2013 14:25

Submitted: 04/27/2013 09:30
Reported: 05/09/2013 09:03

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

S543A SDG#: PH040-01

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
10592	Aroclor 5432	63496-31-1	33	U	33	10	1
10592	Aroclor 5442	12642-23-8	33	U	33	10	1
10592	Aroclor 5460	11126-42-4	33	U	33	10	1
10592	PCB-1016	12674-11-2	17	U	17	3.3	1
10592	PCB-1221	11104-28-2	17	U	17	5.1	1
10592	PCB-1232	11141-16-5	17	U	17	4.1	1
10592	PCB-1242	53469-21-9	17	U	17	3.3	1
10592	PCB-1248	12672-29-6	17	U	17	3.3	1
10592	PCB-1254	11097-69-1	17	U	17	4.4	1
10592	PCB-1260	11096-82-5	17	U	17	3.9	1
10592	PCB-1262	37324-23-5	17	U	17	3.3	1
10592	PCB-1268	11100-14-4	17	U	17	3.3	1
	Project defined QC acceptance limits are not met. All QC is compliant with the laboratory statistically generated limits.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	2.1		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10592	19a PCBs and PCTs 8082A	SW-846 8082A	1	131200017A	05/03/2013 04:45	Monica M Souders	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	131200017A	05/01/2013 09:00	Olivia Arosemena	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13121162401B	05/01/2013 22:00	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-543B-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7037615
LLI Group # 1386003
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/25/2013 14:40

Submitted: 04/27/2013 09:30
Reported: 05/09/2013 09:03

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

S543B SDG#: PH040-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs	**SW-846 8082A**		ug/kg		ug/kg	ug/kg	
10592	Aroclor 5432	63496-31-1	33	U	33	10	1
10592	Aroclor 5442	12642-23-8	33	U	33	10	1
10592	Aroclor 5460	11126-42-4	33	U	33	10	1
10592	PCB-1016	12674-11-2	17	U	17	3.3	1
10592	PCB-1221	11104-28-2	17	U	17	5.1	1
10592	PCB-1232	11141-16-5	17	U	17	4.1	1
10592	PCB-1242	53469-21-9	17	U	17	3.3	1
10592	PCB-1248	12672-29-6	17	U	17	3.3	1
10592	PCB-1254	11097-69-1	17	U	17	4.4	1
10592	PCB-1260	11096-82-5	17	U	17	3.9	1
10592	PCB-1262	37324-23-5	17	U	17	3.3	1
10592	PCB-1268	11100-14-4	17	U	17	3.3	1
Wet Chemistry	**EPA 160.3 modified**		%		%	%	
11624	14a Moisture Content by 160.3	n.a.	2.2		0.10	0.10	1

Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10592	19a PCBs and PCTs 8082A	SW-846 8082A	1	131200017A	05/03/2013 06:17	Monica M Souders	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	131200017A	05/01/2013 09:00	Olivia Arosemena	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13121162401B	05/01/2013 22:00	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-543C-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7037616
LLI Group # 1386003
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/25/2013 14:50

Submitted: 04/27/2013 09:30
Reported: 05/09/2013 09:03

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

S543C SDG#: PH040-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs	**SW-846 8082A**		ug/kg		ug/kg	ug/kg	
10592	Aroclor 5432	63496-31-1	33	U	33	10	1
10592	Aroclor 5442	12642-23-8	33	U	33	10	1
10592	Aroclor 5460	11126-42-4	33	U	33	10	1
10592	PCB-1016	12674-11-2	17	U	17	3.3	1
10592	PCB-1221	11104-28-2	17	U	17	5.1	1
10592	PCB-1232	11141-16-5	17	U	17	4.1	1
10592	PCB-1242	53469-21-9	17	U	17	3.3	1
10592	PCB-1248	12672-29-6	17	U	17	3.3	1
10592	PCB-1254	11097-69-1	17	U	17	4.4	1
10592	PCB-1260	11096-82-5	17	U	17	3.9	1
10592	PCB-1262	37324-23-5	17	U	17	3.3	1
10592	PCB-1268	11100-14-4	17	U	17	3.3	1
Wet Chemistry	**EPA 160.3 modified**		%		%	%	
11624	14a Moisture Content by 160.3	n.a.	2.5		0.10	0.10	1

Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10592	19a PCBs and PCTs 8082A	SW-846 8082A	1	131200017A	05/03/2013 06:35	Monica M Souders	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	131200017A	05/01/2013 09:00	Olivia Arosemena	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13121162401B	05/01/2013 22:00	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-543D-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7037617
LLI Group # 1386003
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/25/2013 15:00

Submitted: 04/27/2013 09:30
Reported: 05/09/2013 09:03

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

S543D SDG#: PH040-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs	**SW-846 8082A**		ug/kg		ug/kg	ug/kg	
10592	Aroclor 5432	63496-31-1	33	U	33	10	1
10592	Aroclor 5442	12642-23-8	33	U	33	10	1
10592	Aroclor 5460	11126-42-4	33	U	33	10	1
10592	PCB-1016	12674-11-2	17	U	17	3.3	1
10592	PCB-1221	11104-28-2	17	U	17	5.1	1
10592	PCB-1232	11141-16-5	17	U	17	4.1	1
10592	PCB-1242	53469-21-9	17	U	17	3.3	1
10592	PCB-1248	12672-29-6	17	U	17	3.3	1
10592	PCB-1254	11097-69-1	17	U	17	4.4	1
10592	PCB-1260	11096-82-5	17	U	17	3.9	1
10592	PCB-1262	37324-23-5	17	U	17	3.3	1
10592	PCB-1268	11100-14-4	17	U	17	3.3	1
Wet Chemistry	**EPA 160.3 modified**		%		%	%	
11624	14a Moisture Content by 160.3	n.a.	1.8		0.10	0.10	1

Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10592	19a PCBs and PCTs 8082A	SW-846 8082A	1	131200017A	05/03/2013 06:53	Monica M Souders	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	131200017A	05/01/2013 09:00	Olivia Arosemena	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13121162401B	05/01/2013 22:00	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: TB-042613 Water
SSFL Phase 3 Subarea 7

LLI Sample # WW 7037618
LLI Group # 1386003
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/26/2013 08:00

Submitted: 04/27/2013 09:30
Reported: 05/09/2013 09:03

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

543TB SDG#: PH040-05TB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC Volatiles	**TPH GRO SW-8015B**		ug/l		ug/l	ug/l	
08229	TPH-GRO S.CA water C5-C12	n.a.	50	U	50	20	1

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08229	11b TPH by EPA 8015B GRO	TPH GRO SW-8015B	1	13121A20A	05/01/2013 12:31	Catherine J Schwarz	1
01146	GC VOA Water Prep	SW-846 5030B	1	13121A20A	05/01/2013 12:31	Catherine J Schwarz	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-562-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7037619
LLI Group # 1386003
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/26/2013 08:25

Submitted: 04/27/2013 09:30
Reported: 05/09/2013 09:03

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL562 SDG#: PH040-06

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	17	U	17	6.9	10
12969	Acenaphthylene	208-96-8	17	U	17	3.5	10
12969	Anthracene	120-12-7	17	U	17	3.5	10
12969	Benzo(a)anthracene	56-55-3	17	U	17	6.9	10
12969	Benzo(a)pyrene	50-32-8	12	J	17	6.9	10
12969	Benzo(b)fluoranthene	205-99-2	23		17	6.9	10
12969	Benzo(e)pyrene	192-97-2	180	U	180	35	10
12969	Benzo(g,h,i)perylene	191-24-2	9.8	J	17	6.9	10
12969	Benzo(k)fluoranthene	207-08-9	7.9	J	17	6.9	10
12969	Butylbenzylphthalate	85-68-7	190	U	190	62	10
12969	Di-n-butylphthalate	84-74-2	190	U	190	62	10
12969	Chrysene	218-01-9	16	J	17	3.5	10
12969	Dibenz(a,h)anthracene	53-70-3	17	U	17	6.9	10
12969	Diethylphthalate	84-66-2	190	U	190	62	10
12969	Dimethylphthalate	131-11-3	190	U	190	62	10
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	190	U	190	62	10
12969	Fluoranthene	206-44-0	22		17	6.9	10
12969	Fluorene	86-73-7	17	U	17	6.9	10
12969	Indeno(1,2,3-cd)pyrene	193-39-5	7.8	J	17	6.9	10
12969	1-Methylnaphthalene	90-12-0	17	U	17	6.9	10
12969	2-Methylnaphthalene	91-57-6	17	U	17	6.9	10
12969	Naphthalene	91-20-3	17	U	17	6.9	10
12969	N-Nitrosodimethylamine	62-75-9	17	U	17	6.9	10
12969	Di-n-octylphthalate	117-84-0	190	U	190	62	10
12969	Phenanthrene	85-01-8	12	J	17	6.9	10
12969	Pyrene	129-00-0	19		17	6.9	10
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
10592	Aroclor 5432	63496-31-1	34	U	34	10	1
10592	Aroclor 5442	12642-23-8	34	U	34	10	1
10592	Aroclor 5460	11126-42-4	34	U	34	10	1
10592	PCB-1016	12674-11-2	17	U	17	3.4	1
10592	PCB-1221	11104-28-2	17	U	17	5.2	1
10592	PCB-1232	11141-16-5	17	U	17	4.2	1
10592	PCB-1242	53469-21-9	17	U	17	3.4	1
10592	PCB-1248	12672-29-6	17	U	17	3.4	1
10592	PCB-1254	11097-69-1	17	U	17	4.5	1
10592	PCB-1260	11096-82-5	17	U	17	4.0	1
10592	PCB-1262	37324-23-5	17	U	17	3.4	1
10592	PCB-1268	11100-14-4	17	U	17	3.4	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	26	U	26	10	5
12952	EFH (C15-C20)	n.a.	26	U	26	10	5
12952	EFH (C21-C30)	n.a.	48		26	10	5
12952	EFH (C30-C40)	n.a.	130		52	21	5
12952	EFH (C8-C11)	n.a.	26	U	26	10	5

The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-562-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7037619
LLI Group # 1386003
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/26/2013 08:25

Submitted: 04/27/2013 09:30
Reported: 05/09/2013 09:03

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL562 SDG#: PH040-06

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	12,600		40.7	7.84	1
06944	Antimony	7440-36-0	0.665	J	4.07	0.509	1
06935	Arsenic	7440-38-2	4.38		4.07	0.336	1
06946	Barium	7440-39-3	78.0		1.02	0.0336	1
06947	Beryllium	7440-41-7	0.491	J	1.02	0.0681	1
07914	Boron	7440-42-8	10.9		10.2	0.844	1
06949	Cadmium	7440-43-9	0.270	J	1.02	0.0336	1
01650	Calcium	7440-70-2	3,400		20.3	4.09	1
06951	Chromium	7440-47-3	16.5		3.05	0.0895	1
06952	Cobalt	7440-48-4	4.54		1.02	0.0915	1
06953	Copper	7440-50-8	12.5		2.03	0.183	1
01654	Iron	7439-89-6	20,300		40.7	3.86	1
06955	Lead	7439-92-1	10.5		3.05	0.478	1
01656	Lithium	7439-93-2	24.1		4.1	0.56	1
01657	Magnesium	7439-95-4	4,410		10.2	1.76	1
06958	Manganese	7439-96-5	280		1.02	0.0844	1
06960	Molybdenum	7439-98-7	0.278	J	2.03	0.173	1
06961	Nickel	7440-02-0	9.24		2.03	0.112	1
10145	Phosphorus	7723-14-0	427		10.2	0.519	1
01662	Potassium	7440-09-7	3,300		102	13.7	1
01667	Sodium	7440-23-5	71.9	J	102	17.0	1
06969	Tin	7440-31-5	2.82	J	10.2	0.224	1
06970	Titanium	7440-32-6	1,100		1.02	0.173	1
06971	Vanadium	7440-62-2	33.1		1.02	0.112	1
06972	Zinc	7440-66-6	91.2		4.07	0.203	1
10146	Zirconium	7440-67-7	2.87	J	5.09	0.844	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.143	J	0.407	0.102	2
06142	Silver	7440-22-4	0.0337	J	0.203	0.0203	2
06144	Strontium	7440-24-6	19.3		0.407	0.0346	2
06145	Thallium	7440-28-0	0.283		0.203	0.0305	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0118	J	0.0163	0.0098	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045C	n.a.	7.34		0.0100	0.0100	1
	The pH was measured in water at 21.6 C.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	3.6		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-562-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7037619
LLI Group # 1386003
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/26/2013 08:25

Submitted: 04/27/2013 09:30
Reported: 05/09/2013 09:03

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL562 SDG#: PH040-06

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.140	JQ	1.02	0.0255	1
11031	12378-PeCDD	40321-76-4	0.740	JB	5.09	0.0621	1
11031	123478-HxCDD	39227-28-6	1.56	JB	5.09	0.0804	1
11031	123678-HxCDD	57653-85-7	4.50	J	5.09	0.0822	1
11031	123789-HxCDD	19408-74-3	2.84	J	5.09	0.0719	1
11031	1234678-HpCDD	35822-46-9	121	B	5.09	0.154	1
11031	OCDD	3268-87-9	1,540	B	10.2	0.0804	1
11031	2378-TCDF	51207-31-9	0.192	JQ	1.02	0.0409	1
11031	12378-PeCDF	57117-41-6	0.557	JB	5.09	0.0364	1
11031	23478-PeCDF	57117-31-4	0.677	JB	5.09	0.0374	1
11031	123478-HxCDF	70648-26-9	0.813	JB	5.09	0.0513	1
11031	123678-HxCDF	57117-44-9	0.584	JB	5.09	0.0482	1
11031	123789-HxCDF	72918-21-9	5.09	U	5.09	0.0352	1
11031	234678-HxCDF	60851-34-5	0.560	JB	5.09	0.0426	1
11031	1234678-HpCDF	67562-39-4	10.4	B	5.09	0.0473	1
11031	1234789-HpCDF	55673-89-7	0.570	JB	5.09	0.0555	1
11031	OCDF	39001-02-0	15.1	B	10.2	0.0478	1
Toxic Equivalents	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	3.84				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	80	25 - 164
13C12-12378-PeCDD	52	25 - 181
13C12-123478-HxCDD	52	32 - 141
13C12-123678-HxCDD	53	28 - 130
13C12-123789-HxCDD	59	28 - 130
13C12-1234678-HpCDD	50	23 - 140
13C12-OCDD	51	17 - 157
13C12-2378-TCDF	66	24 - 169
13C12-12378-PeCDF	56	24 - 185
13C12-23478-PeCDF	53	21 - 178
13C12-123478-HxCDF	51	26 - 152
13C12-123678-HxCDF	52	26 - 123
13C12-234678-HxCDF	57	28 - 136
13C12-123789-HxCDF	77	29 - 147
13C12-1234678-HpCDF	50	28 - 143
13C12-1234789-HpCDF	50	26 - 138
13C12-OCDF	46	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-562-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7037619
LLI Group # 1386003
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/26/2013 08:25

Submitted: 04/27/2013 09:30
Reported: 05/09/2013 09:03

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL562 SDG#: PH040-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-562-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7037619
LLI Group # 1386003
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/26/2013 08:25

Submitted: 04/27/2013 09:30
Reported: 05/09/2013 09:03

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL562 SDG#: PH040-06

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13119SLC026	05/01/2013	17:45	Joseph M Gambler	10
10811	BNA Soil Microwave SIM	SW-846 3546	1	13119SLC026	04/29/2013	14:00	David S Schrum	1
10592	19a PCBs and PCTs 8082A	SW-846 8082A	1	131200017A	05/03/2013	07:12	Monica M Souders	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	131200017A	05/01/2013	09:00	Olivia Arosemena	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	131200001A	05/02/2013	10:45	Heather E Williams	5
12959	EFH soil ext.(microwave)	SW-846 3546	1	131200001A	04/30/2013	18:10	Sally L Appleyard	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13123001	05/07/2013	10:35	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13123001	05/03/2013	12:00	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010C	1	131220637001	05/03/2013	12:44	Joanne M Gates	1
06944	Antimony	SW-846 6010C	1	131220637001	05/03/2013	12:44	Joanne M Gates	1
06935	Arsenic	SW-846 6010C	1	131220637001	05/03/2013	12:44	Joanne M Gates	1
06946	Barium	SW-846 6010C	1	131220637001	05/03/2013	12:44	Joanne M Gates	1
06947	Beryllium	SW-846 6010C	1	131220637001	05/03/2013	12:44	Joanne M Gates	1
07914	Boron	SW-846 6010C	1	131220637001	05/03/2013	12:44	Joanne M Gates	1
06949	Cadmium	SW-846 6010C	1	131220637001	05/03/2013	12:44	Joanne M Gates	1
01650	Calcium	SW-846 6010C	1	131220637001	05/03/2013	12:44	Joanne M Gates	1
06951	Chromium	SW-846 6010C	1	131220637001	05/03/2013	12:44	Joanne M Gates	1
06952	Cobalt	SW-846 6010C	1	131220637001	05/03/2013	12:44	Joanne M Gates	1
06953	Copper	SW-846 6010C	1	131220637001	05/03/2013	12:44	Joanne M Gates	1
01654	Iron	SW-846 6010C	1	131220637001	05/03/2013	12:44	Joanne M Gates	1
06955	Lead	SW-846 6010C	1	131220637001	05/03/2013	12:44	Joanne M Gates	1
01656	Lithium	SW-846 6010C	1	131220637001	05/03/2013	12:44	Joanne M Gates	1
01657	Magnesium	SW-846 6010C	1	131220637001	05/03/2013	12:44	Joanne M Gates	1
06958	Manganese	SW-846 6010C	1	131220637001	05/03/2013	12:44	Joanne M Gates	1
06960	Molybdenum	SW-846 6010C	1	131220637001	05/03/2013	12:44	Joanne M Gates	1
06961	Nickel	SW-846 6010C	1	131220637001	05/03/2013	12:44	Joanne M Gates	1
10145	Phosphorus	SW-846 6010C	1	131220637001	05/03/2013	12:44	Joanne M Gates	1
01662	Potassium	SW-846 6010C	1	131220637001	05/03/2013	12:44	Joanne M Gates	1
01667	Sodium	SW-846 6010C	1	131220637001	05/03/2013	12:44	Joanne M Gates	1
06969	Tin	SW-846 6010C	1	131220637001	05/03/2013	12:44	Joanne M Gates	1
06970	Titanium	SW-846 6010C	1	131220637001	05/03/2013	12:44	Joanne M Gates	1
06971	Vanadium	SW-846 6010C	1	131220637001	05/03/2013	12:44	Joanne M Gates	1
06972	Zinc	SW-846 6010C	1	131220637001	05/03/2013	12:44	Joanne M Gates	1
10146	Zirconium	SW-846 6010C	1	131220637001	05/03/2013	12:44	Joanne M Gates	1
06141	Selenium	SW-846 6020A	1	131220637001B	05/06/2013	11:50	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	131220637001A	05/06/2013	11:50	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	131220637001A	05/06/2013	11:50	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	131220637001A	05/06/2013	11:50	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-562-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7037619
LLI Group # 1386003
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/26/2013 08:25

Submitted: 04/27/2013 09:30
Reported: 05/09/2013 09:03

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL562 SDG#: PH040-06

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00159	3a Mercury 7471A	SW-846 7471B	1	131220638001	05/03/2013 10:10	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	131220637001	05/02/2013 23:16	Annamaria Stipkovits	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	131220638001	05/03/2013 02:45	Annamaria Stipkovits	1
00394	15a pH by 9045C	SW-846 9045D modified	1	13117039401A	04/27/2013 18:39	Clayton C Litchmore	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13121162401B	05/01/2013 22:00	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-562-SA7-SB-2.0-3.0 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7037620
LLI Group # 1386003
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/26/2013 09:20

Submitted: 04/27/2013 09:30
Reported: 05/09/2013 09:03

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

S5622 SDG#: PH040-07*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	17	U	17	6.9	10
12969	Acenaphthylene	208-96-8	17	U	17	3.4	10
12969	Anthracene	120-12-7	17	U	17	3.4	10
12969	Benzo(a)anthracene	56-55-3	7.9	J	17	6.9	10
12969	Benzo(a)pyrene	50-32-8	28		17	6.9	10
12969	Benzo(b)fluoranthene	205-99-2	39		17	6.9	10
12969	Benzo(e)pyrene	192-97-2	100	J	180	34	10
12969	Benzo(g,h,i)perylene	191-24-2	40		17	6.9	10
12969	Benzo(k)fluoranthene	207-08-9	46		17	6.9	10
12969	Butylbenzylphthalate	85-68-7	190	U	190	62	10
12969	Di-n-butylphthalate	84-74-2	190	U	190	62	10
12969	Chrysene	218-01-9	39		17	3.4	10
12969	Dibenz(a,h)anthracene	53-70-3	17	J	17	6.9	10
12969	Diethylphthalate	84-66-2	190	U	190	62	10
12969	Dimethylphthalate	131-11-3	190	U	190	62	10
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	150	J	190	62	10
12969	Fluoranthene	206-44-0	15	J	17	6.9	10
12969	Fluorene	86-73-7	17	U	17	6.9	10
12969	Indeno(1,2,3-cd)pyrene	193-39-5	15	J	17	6.9	10
12969	1-Methylnaphthalene	90-12-0	17	U	17	6.9	10
12969	2-Methylnaphthalene	91-57-6	17	U	17	6.9	10
12969	Naphthalene	91-20-3	17	U	17	6.9	10
12969	N-Nitrosodimethylamine	62-75-9	17	U	17	6.9	10
12969	Di-n-octylphthalate	117-84-0	190	U	190	62	10
12969	Phenanthrene	85-01-8	17	U	17	6.9	10
12969	Pyrene	129-00-0	13	J	17	6.9	10
GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	1.2	U	1.2	0.2	29.07
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
10592	Aroclor 5432	63496-31-1	33	U	33	10	1
10592	Aroclor 5442	12642-23-8	33	U	33	10	1
10592	Aroclor 5460	11126-42-4	33	U	33	10	1
10592	PCB-1016	12674-11-2	17	U	17	3.3	1
10592	PCB-1221	11104-28-2	17	U	17	5.2	1
10592	PCB-1232	11141-16-5	17	U	17	4.2	1
10592	PCB-1242	53469-21-9	17	U	17	3.3	1
10592	PCB-1248	12672-29-6	17	U	17	3.3	1
10592	PCB-1254	11097-69-1	17	U	17	4.5	1
10592	PCB-1260	11096-82-5	17	U	17	4.0	1
10592	PCB-1262	37324-23-5	17	U	17	3.3	1
10592	PCB-1268	11100-14-4	17	U	17	3.3	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	26	U	26	10	5
12952	EFH (C15-C20)	n.a.	26	U	26	10	5

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-562-SA7-SB-2.0-3.0 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7037620
LLI Group # 1386003
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/26/2013 09:20

Submitted: 04/27/2013 09:30
Reported: 05/09/2013 09:03

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

S5622 SDG#: PH040-07*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C21-C30)	n.a.	82		26	10	5
12952	EFH (C30-C40)	n.a.	220		51	21	5
12952	EFH (C8-C11)	n.a.	26	U	26	10	5
	The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.						
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	12,100		41.2	7.94	1
06944	Antimony	7440-36-0	0.557	J	4.12	0.515	1
06935	Arsenic	7440-38-2	4.22		4.12	0.340	1
06946	Barium	7440-39-3	85.4		1.03	0.0340	1
06947	Beryllium	7440-41-7	0.487	J	1.03	0.0690	1
07914	Boron	7440-42-8	9.62	J	10.3	0.855	1
06949	Cadmium	7440-43-9	0.399	J	1.03	0.0340	1
01650	Calcium	7440-70-2	3,250		20.6	4.14	1
06951	Chromium	7440-47-3	18.6		3.09	0.0906	1
06952	Cobalt	7440-48-4	4.50		1.03	0.0927	1
06953	Copper	7440-50-8	11.6		2.06	0.185	1
01654	Iron	7439-89-6	20,500		41.2	3.91	1
06955	Lead	7439-92-1	15.8		3.09	0.484	1
01656	Lithium	7439-93-2	25.1		4.1	0.57	1
01657	Magnesium	7439-95-4	4,340		10.3	1.78	1
06958	Manganese	7439-96-5	284		1.03	0.0855	1
06960	Molybdenum	7439-98-7	0.334	J	2.06	0.175	1
06961	Nickel	7440-02-0	13.8		2.06	0.113	1
10145	Phosphorus	7723-14-0	370		10.3	0.525	1
01662	Potassium	7440-09-7	3,150		103	13.9	1
01667	Sodium	7440-23-5	73.0	J	103	17.2	1
06969	Tin	7440-31-5	2.92	J	10.3	0.227	1
06970	Titanium	7440-32-6	1,100		1.03	0.175	1
06971	Vanadium	7440-62-2	35.4		1.03	0.113	1
06972	Zinc	7440-66-6	129		4.12	0.206	1
10146	Zirconium	7440-67-7	2.56	J	5.15	0.855	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.145	J	0.412	0.103	2
06142	Silver	7440-22-4	0.0694	J	0.206	0.0206	2
06144	Strontium	7440-24-6	17.5		0.412	0.0350	2
06145	Thallium	7440-28-0	0.238		0.206	0.0309	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0163	U	0.0163	0.0098	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045C	n.a.	8.12		0.0100	0.0100	1
	The pH was measured in water at 21.8 C.						

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-562-SA7-SB-2.0-3.0 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7037620
LLI Group # 1386003
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/26/2013 09:20

Submitted: 04/27/2013 09:30
Reported: 05/09/2013 09:03

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

S5622 SDG#: PH040-07*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Wet Chemistry	**EPA 160.3 modified**		%	%	%	
11624	14a Moisture Content by 160.3	n.a.	2.9	0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.					

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-562-SA7-SB-2.0-3.0 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7037620
LLI Group # 1386003
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/26/2013 09:20

Submitted: 04/27/2013 09:30
Reported: 05/09/2013 09:03

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

S5622 SDG#: PH040-07*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.116	J	1.00	0.0266	1
11031	12378-PeCDD	40321-76-4	0.735	JB	5.01	0.0657	1
11031	123478-HxCDD	39227-28-6	1.54	JB	5.01	0.0601	1
11031	123678-HxCDD	57653-85-7	7.59		5.01	0.0620	1
11031	123789-HxCDD	19408-74-3	3.27	J	5.01	0.0580	1
11031	1234678-HpCDD	35822-46-9	215	B	5.01	0.0993	1
11031	OCDD	3268-87-9	2,660	B	10.0	0.105	1
11031	2378-TCDF	51207-31-9	0.830	J	1.00	0.0983	1
11031	12378-PeCDF	57117-41-6	0.995	JB	5.01	0.0669	1
11031	23478-PeCDF	57117-31-4	1.79	JB	5.01	0.0634	1
11031	123478-HxCDF	70648-26-9	1.77	JB	5.01	0.0604	1
11031	123678-HxCDF	57117-44-9	1.49	JB	5.01	0.0594	1
11031	123789-HxCDF	72918-21-9	0.745	JB	5.01	0.0617	1
11031	234678-HxCDF	60851-34-5	1.52	JB	5.01	0.0604	1
11031	1234678-HpCDF	67562-39-4	27.1	B	5.01	0.0571	1
11031	1234789-HpCDF	55673-89-7	1.64	JB	5.01	0.0705	1
11031	OCDF	39001-02-0	47.0	B	10.0	0.0817	1
Toxic Equivalents	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	6.54				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	84	25 - 164
13C12-12378-PeCDD	70	25 - 181
13C12-123478-HxCDD	71	32 - 141
13C12-123678-HxCDD	69	28 - 130
13C12-123789-HxCDD	69	28 - 130
13C12-1234678-HpCDD	62	23 - 140
13C12-OCDD	56	17 - 157
13C12-2378-TCDF	70	24 - 169
13C12-12378-PeCDF	68	24 - 185
13C12-23478-PeCDF	71	21 - 178
13C12-123478-HxCDF	74	26 - 152
13C12-123678-HxCDF	73	26 - 123
13C12-234678-HxCDF	73	28 - 136
13C12-123789-HxCDF	79	29 - 147
13C12-1234678-HpCDF	66	28 - 143
13C12-1234789-HpCDF	59	26 - 138
13C12-OCDF	56	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration

*=This limit was used in the evaluation of the final result

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Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: SL-562-SA7-SB-2.0-3.0 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7037620
LLI Group # 1386003
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/26/2013 09:20

Submitted: 04/27/2013 09:30
Reported: 05/09/2013 09:03

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

S5622 SDG#: PH040-07*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-562-SA7-SB-2.0-3.0 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7037620
LLI Group # 1386003
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/26/2013 09:20

Submitted: 04/27/2013 09:30
Reported: 05/09/2013 09:03

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

S5622 SDG#: PH040-07*

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13119SLC026	05/01/2013	18:16	Joseph M Gambler	10
10811	BNA Soil Microwave SIM	SW-846 3546	1	13119SLC026	04/29/2013	14:00	David S Schrum	1
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	13120A16A	04/30/2013	17:57	Laura M Krieger	29.07
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201311730906	04/27/2013	18:10	Mitchell R Washel	n.a.
10592	19a PCBs and PCTs 8082A	SW-846 8082A	1	131200017A	05/05/2013	16:53	Jessica L Miller	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	131200017A	05/01/2013	09:00	Olivia Arosemena	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	131200001A	05/02/2013	11:26	Heather E Williams	5
12959	EFH soil ext.(microwave)	SW-846 3546	1	131200001A	04/30/2013	18:10	Sally L Appleyard	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13123001	05/07/2013	11:32	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13123001	05/03/2013	12:00	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010C	1	131220637001	05/03/2013	12:48	Joanne M Gates	1
06944	Antimony	SW-846 6010C	1	131220637001	05/03/2013	12:48	Joanne M Gates	1
06935	Arsenic	SW-846 6010C	1	131220637001	05/03/2013	12:48	Joanne M Gates	1
06946	Barium	SW-846 6010C	1	131220637001	05/03/2013	12:48	Joanne M Gates	1
06947	Beryllium	SW-846 6010C	1	131220637001	05/03/2013	12:48	Joanne M Gates	1
07914	Boron	SW-846 6010C	1	131220637001	05/03/2013	12:48	Joanne M Gates	1
06949	Cadmium	SW-846 6010C	1	131220637001	05/03/2013	12:48	Joanne M Gates	1
01650	Calcium	SW-846 6010C	1	131220637001	05/03/2013	12:48	Joanne M Gates	1
06951	Chromium	SW-846 6010C	1	131220637001	05/03/2013	12:48	Joanne M Gates	1
06952	Cobalt	SW-846 6010C	1	131220637001	05/03/2013	12:48	Joanne M Gates	1
06953	Copper	SW-846 6010C	1	131220637001	05/03/2013	12:48	Joanne M Gates	1
01654	Iron	SW-846 6010C	1	131220637001	05/03/2013	12:48	Joanne M Gates	1
06955	Lead	SW-846 6010C	1	131220637001	05/03/2013	12:48	Joanne M Gates	1
01656	Lithium	SW-846 6010C	1	131220637001	05/03/2013	12:48	Joanne M Gates	1
01657	Magnesium	SW-846 6010C	1	131220637001	05/03/2013	12:48	Joanne M Gates	1
06958	Manganese	SW-846 6010C	1	131220637001	05/03/2013	12:48	Joanne M Gates	1
06960	Molybdenum	SW-846 6010C	1	131220637001	05/03/2013	12:48	Joanne M Gates	1
06961	Nickel	SW-846 6010C	1	131220637001	05/03/2013	12:48	Joanne M Gates	1
10145	Phosphorus	SW-846 6010C	1	131220637001	05/03/2013	12:48	Joanne M Gates	1
01662	Potassium	SW-846 6010C	1	131220637001	05/03/2013	12:48	Joanne M Gates	1
01667	Sodium	SW-846 6010C	1	131220637001	05/03/2013	12:48	Joanne M Gates	1
06969	Tin	SW-846 6010C	1	131220637001	05/03/2013	12:48	Joanne M Gates	1
06970	Titanium	SW-846 6010C	1	131220637001	05/03/2013	12:48	Joanne M Gates	1
06971	Vanadium	SW-846 6010C	1	131220637001	05/03/2013	12:48	Joanne M Gates	1
06972	Zinc	SW-846 6010C	1	131220637001	05/03/2013	12:48	Joanne M Gates	1
10146	Zirconium	SW-846 6010C	1	131220637001	05/03/2013	12:48	Joanne M Gates	1
06141	Selenium	SW-846 6020A	1	131220637001B	05/06/2013	11:52	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-562-SA7-SB-2.0-3.0 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7037620
LLI Group # 1386003
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 04/26/2013 09:20

Submitted: 04/27/2013 09:30
Reported: 05/09/2013 09:03

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

S5622 SDG#: PH040-07*

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06142	Silver	SW-846 6020A	1	131220637001A	05/06/2013 11:52	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	131220637001A	05/06/2013 11:52	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	131220637001A	05/06/2013 11:52	Choon Y Tian	2
00159	3a Mercury 7471A	SW-846 7471B	1	131220638001	05/03/2013 10:12	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	131220637001	05/02/2013 23:16	Annamaria Stipkovits	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	131220638001	05/03/2013 02:45	Annamaria Stipkovits	1
00394	15a pH by 9045C	SW-846 9045D modified	1	13117003941A	04/27/2013 18:39	Clayton C Litchmore	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13121162401B	05/01/2013 22:00	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1386003
Reported: 05/09/13 at 09:03 AM

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 13119SLC026	Sample number(s): 7037619-7037620									
Acenaphthene	1.7	U	1.7	0.67	ug/kg	99		69-114		
Acenaphthylene	1.7	U	1.7	0.33	ug/kg	100		71-113		
Anthracene	1.7	U	1.7	0.33	ug/kg	100		75-116		
Benzo(a)anthracene	1.7	U	1.7	0.67	ug/kg	98		76-115		
Benzo(a)pyrene	1.7	U	1.7	0.67	ug/kg	99		76-117		
Benzo(b)fluoranthene	1.7	U	1.7	0.67	ug/kg	115		77-129		
Benzo(e)pyrene	17	U	17.	3.3	ug/kg	100		70-130		
Benzo(g,h,i)perylene	1.7	U	1.7	0.67	ug/kg	96		64-120		
Benzo(k)fluoranthene	1.7	U	1.7	0.67	ug/kg	98		71-120		
Butylbenzylphthalate	18	U	18.	6.0	ug/kg	89		65-131		
Di-n-butylphthalate	18	U	18.	6.0	ug/kg	99		67-140		
Chrysene	1.7	U	1.7	0.33	ug/kg	97		78-111		
Dibenz(a,h)anthracene	1.7	U	1.7	0.67	ug/kg	97		65-124		
Diethylphthalate	18	U	18.	6.0	ug/kg	101		68-125		
Dimethylphthalate	18	U	18.	6.0	ug/kg	99		70-130		
Bis(2-Ethylhexyl)phthalate	18	U	18.	6.0	ug/kg	86		67-143		
Fluoranthene	1.7	U	1.7	0.67	ug/kg	95		68-119		
Fluorene	1.7	U	1.7	0.67	ug/kg	104		75-123		
Indeno(1,2,3-cd)pyrene	1.7	U	1.7	0.67	ug/kg	98		66-122		
1-Methylnaphthalene	1.7	U	1.7	0.67	ug/kg	101		74-113		
2-Methylnaphthalene	1.7	U	1.7	0.67	ug/kg	100		78-121		
Naphthalene	1.7	U	1.7	0.67	ug/kg	100		64-120		
N-Nitrosodimethylamine	1.7	U	1.7	0.67	ug/kg	98		30-125		
Di-n-octylphthalate	18	U	18.	6.0	ug/kg	92		57-133		
Phenanthrene	1.7	U	1.7	0.67	ug/kg	97		72-110		
Pyrene	1.7	U	1.7	0.67	ug/kg	90		71-120		
Batch number: 13120A16A	Sample number(s): 7037620									
11a TPH by EPA 8015B GRO	1.0	U	1.0	0.2	mg/kg	96	91	67-119	6	30
Batch number: 13121A20A	Sample number(s): 7037618									
TPH-GRO S.CA water C5-C12	50	U	50.	20	ug/l	98	103	75-135	5	30
Batch number: 131200017A	Sample number(s): 7037614-7037617,7037619-7037620									
Aroclor 5432	33	U	33.	10	ug/kg					
Aroclor 5442	33	U	33.	10	ug/kg	49	73	36-106	40*	30
Aroclor 5460	33	U	33.	10	ug/kg					
PCB-1016	17	U	17.	3.3	ug/kg	104		80-120		
PCB-1221	17	U	17.	5.1	ug/kg					
PCB-1232	17	U	17.	4.1	ug/kg					
PCB-1242	17	U	17.	3.3	ug/kg					
PCB-1248	17	U	17.	3.3	ug/kg					
PCB-1254	17	U	17.	4.4	ug/kg					

*- Outside of specification
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(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1386003
Reported: 05/09/13 at 09:03 AM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
PCB-1260	17	U	17.	3.9	ug/kg	99		72-120		
PCB-1262	17	U	17.	3.3	ug/kg					
PCB-1268	17	U	17.	3.3	ug/kg					
Batch number: 131200001A	Sample number(s): 7037619-7037620									
EFH (C12-C14)	5.0	U	5.0	2.0	mg/kg	93		70-123		
EFH (C15-C20)	5.0	U	5.0	2.0	mg/kg	99		75-128		
EFH (C21-C30)	5.0	U	5.0	2.0	mg/kg	97		64-134		
EFH (C30-C40)	10	U	10.	4.0	mg/kg	63*		65-128		
EFH (C8-C11)	5.0	U	5.0	2.0	mg/kg	80		49-107		
Batch number: 131220637001	Sample number(s): 7037619-7037620									
Aluminum	40.0	U	40.0	7.71	mg/kg	101		80-120		
Antimony	4.00	U	4.00	0.500	mg/kg	104		80-120		
Arsenic	4.00	U	4.00	0.330	mg/kg	104		80-120		
Barium	1.00	U	1.00	0.0330	mg/kg	104		80-120		
Beryllium	1.00	U	1.00	0.0670	mg/kg	103		80-120		
Boron	10.0	U	10.0	0.830	mg/kg	99		80-120		
Cadmium	1.00	U	1.00	0.0330	mg/kg	103		80-120		
Calcium	20.0	U	20.0	4.02	mg/kg	103		80-120		
Chromium	3.00	U	3.00	0.0880	mg/kg	102		80-120		
Cobalt	1.00	U	1.00	0.0900	mg/kg	106		80-120		
Copper	2.00	U	2.00	0.180	mg/kg	109		80-120		
Iron	40.0	U	40.0	3.80	mg/kg	101		80-120		
Lead	3.00	U	3.00	0.470	mg/kg	106		80-120		
Lithium	4.0	U	4.0	0.55	mg/kg	103		80-120		
Magnesium	10.0	U	10.0	1.73	mg/kg	99		80-120		
Manganese	1.00	U	1.00	0.0830	mg/kg	105		80-120		
Molybdenum	2.00	U	2.00	0.170	mg/kg	102		80-120		
Nickel	2.00	U	2.00	0.110	mg/kg	107		80-120		
Phosphorus	1.44	J	10.0	0.510	mg/kg	106		80-120		
Potassium	100 U		100.	13.5	mg/kg	100		80-120		
Sodium	100 U		100.	16.7	mg/kg	100		80-120		
Tin	1.47	J	10.0	0.220	mg/kg	103		80-120		
Titanium	1.00	U	1.00	0.170	mg/kg	103		80-120		
Vanadium	1.00	U	1.00	0.110	mg/kg	102		80-120		
Zinc	4.00	U	4.00	0.200	mg/kg	105		80-120		
Zirconium	5.00	U	5.00	0.830	mg/kg	101		80-120		
Batch number: 131220637001A	Sample number(s): 7037619-7037620									
Silver	0.200	U	0.200	0.0200	mg/kg	109		80-120		
Strontium	0.400	U	0.400	0.0340	mg/kg	110		80-120		
Thallium	0.200	U	0.200	0.0300	mg/kg	105		80-120		
Batch number: 131220637001B	Sample number(s): 7037619-7037620									
Selenium	0.400	U	0.400	0.100	mg/kg	107		80-120		
Batch number: 131220638001	Sample number(s): 7037619-7037620									
3a Mercury 7471A	0.0167	U	0.0167	0.0100	mg/kg	108		85-120		
Batch number: 13117039401A	Sample number(s): 7037619									
15a pH by 9045C						99		95-105		
Batch number: 13121162401B	Sample number(s): 7037614-7037617,7037619-7037620									

*- Outside of specification
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(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1386003
Reported: 05/09/13 at 09:03 AM

Analysis Name	Blank Result	Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
14a Moisture Content by 160.3					99		80-120		

Analysis Name	Blank Result	Blank MRL**	Blank EDL	Report Units	OPR %REC	OPRD %REC	OPR/OPRD Limits	RPD	RPD Max
Batch number: 13123001	Sample number(s): 7037619-7037620								
2378-TCDD	1.00 U	1.00	0.0355	ng/kg	89		67-158		
12378-PeCDD	0.0477 J	5.00	0.0338	ng/kg	92		70-142		
123478-HxCDD	0.0263 J	5.00	0.0237	ng/kg	100		70-164		
123678-HxCDD	5.00 U	5.00	0.0245	ng/kg	97		76-134		
123789-HxCDD	5.00 U	5.00	0.0241	ng/kg	97		64-162		
1234678-HpCDD	0.0789 J	5.00	0.0258	ng/kg	95		70-140		
OCDD	0.143 J	10.0	0.0248	ng/kg	94		78-144		
2378-TCDF	1.00 U	1.00	0.0282	ng/kg	92		75-158		
12378-PeCDF	0.0390 J	5.00	0.0181	ng/kg	96		80-134		
23478-PeCDF	0.0517 J	5.00	0.0177	ng/kg	98		68-160		
123478-HxCDF	0.0360 J	5.00	0.0127	ng/kg	98		72-134		
123678-HxCDF	0.0277 J	5.00	0.0118	ng/kg	96		84-130		
123789-HxCDF	0.0157 J	5.00	0.0129	ng/kg	101		78-130		
234678-HxCDF	0.0328 J	5.00	0.0115	ng/kg	98		70-156		
1234678-HpCDF	0.0301 J	5.00	0.0110	ng/kg	97		82-122		
1234789-HpCDF	0.0373 J	5.00	0.0157	ng/kg	96		78-138		
OCDF	0.125 J	10.0	0.0440	ng/kg	99		63-170		
TEQ WHO 2005 - EDLx0.0	0.00836			ng/kg					

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 13119SLC026	Sample number(s): 7037619-7037620 UNSPK: P036179								
Acenaphthene	95	91	48-127	4	30				
Acenaphthylene	88	86	49-121	2	30				
Anthracene	94	87	52-126	8	30				
Benzo(a)anthracene	159*	85	32-135	55*	30				
Benzo(a)pyrene	143*	85	36-138	45*	30				
Benzo(b)fluoranthene	163*	91	26-142	43*	30				
Benzo(e)pyrene	123	86	70-130	31*	30				
Benzo(g,h,i)perylene	74	50	33-141	35*	30				
Benzo(k)fluoranthene	121	88	47-129	25	30				
Butylbenzylphthalate	103	106	59-153	3	30				
Di-n-butylphthalate	101	97	62-154	4	30				
Chrysene	163*	81	29-148	55*	30				
Dibenz(a,h)anthracene	78	65	34-125	17	30				
Diethylphthalate	106	103	76-127	3	30				
Dimethylphthalate	91	89	62-136	3	30				

*- Outside of specification
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(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1386003
Reported: 05/09/13 at 09:03 AM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Bis(2-Ethylhexyl)phthalate	76	63	39-167	10	30				
Fluoranthene	205*	85	47-135	70*	30				
Fluorene	90	89	50-129	1	30				
Indeno(1,2,3-cd)pyrene	87	61	17-136	32*	30				
1-Methylnaphthalene	98	98	50-131	0	30				
2-Methylnaphthalene	98	98	28-144	0	30				
Naphthalene	97	96	31-148	0	30				
N-Nitrosodimethylamine	93	93	48-113	0	30				
Di-n-octylphthalate	108	116	52-162	8	30				
Phenanthrene	124	92	29-142	28	30				
Pyrene	195*	76	26-143	75*	30				
Batch number: 131200017A	Sample number(s): 7037614-7037617,7037619-7037620 UNSPK: P036179								
PCB-1016	94	99	16-146	5	50				
PCB-1260	86	91	40-134	5	50				
Batch number: 131200001A	Sample number(s): 7037619-7037620 UNSPK: P036179								
EFH (C12-C14)	147*	137*	49-123	4	20				
EFH (C15-C20)	418 (2)	352 (2)	49-123	7	20				
EFH (C21-C30)	1125 (2)	986 (2)	49-123	7	20				
EFH (C30-C40)	406 (2)	755 (2)	49-123	14	20				
EFH (C8-C11)	140*	151*	49-123	4	20				
Batch number: 131220637001	Sample number(s): 7037619-7037620 UNSPK: P036179 BKG: P036179								
Aluminum	1523 (2)	1646 (2)	75-125	2	20	11,400	10,900	5	20
Antimony	57*	57*	75-125	0	20	4.52	3.96 U	200* (1)	20
Arsenic	102	102	75-125	0	20	4.34	3.98	9 (1)	20
Barium	101	98	75-125	2	20	101	88.6	13	20
Beryllium	106	106	75-125	0	20	0.451 J	0.421 J	7 (1)	20
Boron	101	101	75-125	1	20	15.3	12.8	18 (1)	20
Cadmium	84	84	75-125	0	20	1.16	0.273 J	124* (1)	20
Calcium	275 (2)	-53 (2)	75-125	16	20	7,750	5,970	26*	20
Chromium	110	118	75-125	4	20	15.0	16.5	9	20
Cobalt	95	95	75-125	0	20	7.43	3.86	63* (1)	20
Copper	115	113	75-125	1	20	12.1	11.6	4	20
Iron	1009 (2)	1510 (2)	75-125	3	20	17,500	17,100	2	20
Lead	50*	44*	75-125	3	20	23.2	13.4	54* (1)	20
Lithium	107	106	75-125	1	20	19.7	20.1	2 (1)	20
Magnesium	264 (2)	282 (2)	75-125	1	20	4,380	4,170	5	20
Manganese	37 (2)	41 (2)	75-125	0	20	346	290	18	20
Molybdenum	99	98	75-125	0	20	2.73	0.348 J	155* (1)	20
Nickel	105	106	75-125	0	20	8.69	9.72	11 (1)	20
Phosphorus	-28 (2)	-49 (2)	75-125	3	20	663	462	36*	20
Potassium	129*	135*	75-125	1	20	3,020	2,970	2	20
Sodium	104	102	75-125	1	20	86.7 J	77.4 J	11 (1)	20
Tin	94	94	75-125	0	20	10.6	2.69 J	119* (1)	20
Titanium	315 (2)	362 (2)	75-125	4	20	953	968	2	20
Vanadium	111	111	75-125	0	20	28.6	27.7	3	20
Zinc	107	103	75-125	2	20	69.3	62.6	10	20

*- Outside of specification
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(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1386003
Reported: 05/09/13 at 09:03 AM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Zirconium	98	98	75-125	0	20	2.43 J	2.34 J	4 (1)	20
Batch number: 131220637001A	Sample number(s): 7037619-7037620 UNSPK: P036179 BKG: P036179								
Silver	111	113	75-125	2	20	0.0343 J	0.0481 J	33* (1)	20
Strontium	39 (2)	88 (2)	75-125	9	20	36.6	36.0	2	20
Thallium	109	109	75-125	0	20	0.225	0.245	9 (1)	20
Batch number: 131220637001B	Sample number(s): 7037619-7037620 UNSPK: P036179 BKG: P036179								
Selenium	111	108	75-125	2	20	0.185 J	0.220 J	17 (1)	20
Batch number: 131220638001	Sample number(s): 7037619-7037620 UNSPK: P036179 BKG: P036179								
3a Mercury 7471A	109	101	65-135	9	20	0.0567	0.0552	3 (1)	20
Batch number: 13117039401A	Sample number(s): 7037619 BKG: 7037619								
15a pH by 9045C						7.34	7.58	3	3
Batch number: 13121162401B	Sample number(s): 7037614-7037617,7037619-7037620 BKG: P036184								
14a Moisture Content by 160.3						3.4	3.4	1	20
Batch number: 13123001	Sample number(s): 7037619-7037620 UNSPK: P036179								
2378-TCDD	87	89	40-135	1	20				
12378-PeCDD	92	93	40-135	1	20				
123478-HxCDD	100	101	40-135	0	20				
123678-HxCDD	94	95	40-135	0	20				
123789-HxCDD	97	97	40-135	1	20				
1234678-HpCDD	83	90	40-135	6	20				
OCDD	30*	61	40-135	17	20				
2378-TCDF	93	93	40-135	1	20				
12378-PeCDF	97	96	40-135	2	20				
23478-PeCDF	98	97	40-135	1	20				
123478-HxCDF	100	101	40-135	0	20				
123678-HxCDF	98	96	40-135	3	20				
123789-HxCDF	98	99	40-135	0	20				
234678-HxCDF	98	99	40-135	0	20				
1234678-HpCDF	96	98	40-135	1	20				
1234789-HpCDF	97	96	40-135	1	20				
OCDF	96	97	40-135	1	20				

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 7a SVOC SIM EPA 8270D
Batch number: 13119SLC026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
7037619	86	99	92

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1386003
Reported: 05/09/13 at 09:03 AM

Surrogate Quality Control

7037620	88	110	94
Blank	89	102	98
LCS	90	102	99
MS	88	97	94
MSD	86	97	96
Limits:	54-129	61-134	55-129

Analysis Name: 11a TPH by EPA 8015B GRO
Batch number: 13120A16A

	Trifluorotoluene-F
7037620	81
Blank	86
LCS	88
LCSD	83
Limits:	61-122

Analysis Name: 11b TPH by EPA 8015B GRO
Batch number: 13121A20A

	Trifluorotoluene-F
7037618	87
Blank	88
LCS	113
LCSD	113
Limits:	63-135

Analysis Name: 19a PCBs and PCTs 8082A
Batch number: 131200017A

	Tetrachloro-m-xylene	Decachlorobiphenyl
7037614	122*	103
7037615	114	104
7037616	104	97
7037617	111	105
7037619	107	98
7037620	80	61
Blank	129*	112
LCS	132*	116
LCSD	138*	116
MS	124*	112
MSD	123*	112
Limits:	45-120	45-120

Analysis Name: 10a TPH by EPA 8015B (DRO)
Batch number: 131200001A

	Chlorobenzene	Orthoterphenyl
7037619	87	93
7037620	87	87
Blank	99	104
LCS	93	97

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1386003
Reported: 05/09/13 at 09:03 AM

Surrogate Quality Control

MS	102	85
MSD	95	82
Limits:	37-125	66-123

Analysis Name: 23a Dioxin/Furan by EPA 1613B
Batch number: 13123001

	13C12-2378-TCDD	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF	13C12-234678-HxCDF	13C12-123789-HxCDF
7037619	80	53	51	52	57	77
7037620	84	71	74	73	73	79
Blank	79	80	92	95	91	92
MS	81	54	55	56	58	77
MSD	78	67	72	74	71	78
OPR	83	47	45	47	52	73
Limits:	25-164	21-178	26-152	26-123	28-136	29-147

	13C12-1234678-HpCDF	13C12-1234789-HpCDF	13C12-OCDF	13C12-12378-PeCDD	13C12-123478-HxCDD	13C12-123678-HxCDD
7037619	50	50	46	52	52	53
7037620	66	59	56	70	71	69
Blank	106	84	79	83	90	92
MS	54	50	47	53	55	54
MSD	71	62	59	65	69	70
OPR	50	45	42	48	45	46
Limits:	28-143	26-138	17-157	25-181	32-141	28-130

	13C12-123789-HxCDD	13C12-1234678-HpCDD	13C12-OCDD	13C12-2378-TCDF	13C12-12378-PeCDF
7037619	59	50	51	66	56
7037620	69	62	56	70	68
Blank	89	90	87	72	82
MS	58	52	53	62	54
MSD	68	65	62	65	64
OPR	56	48	52	61	52
Limits:	28-130	23-140	17-157	24-169	24-185

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

acct#13013 Cap#1386003 Sample#7037614-20

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 4/26/2013
CarrierName: FedEx
AirbillNo: 7996 2149 4004

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20130426-01
Cooler #: 1
Lab: Lancaster
Lab Phone: 717-556-7259
Lab Address: 2425 New Holland Pike, Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Other Analysis/Notes
SL-543A-SA7-SB-0.0-0.5	4/25/13 14:25	SO	None	1 - SS-Sleeve	10 day										X																						
SL-543B-SA7-SB-0.0-0.5	4/25/13 14:40	SO	None	1 - SS-Sleeve	10 day										X																						
SL-543C-SA7-SB-0.0-0.5	4/25/13 14:50	SO	None	1 - SS-Sleeve	10 day										X																						
SL-543D-SA7-SB-0.0-0.5	4/25/13 15:00	SO	None	1 - SS-Sleeve	10 day										X																						
TB-042613	4/26/13 08:00	WQ	HCl	4 - 40 mL Vial	10 day																			X													
SL-562-SA7-SB-0.0-0.5	4/26/13 08:25	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X										X												
SL-562-SA7-SB-0.0-0.5	4/26/13 08:25	SO	None	1 - 4 oz glass	10 day													X																			
SL-562-SA7-SB-2.0-3.0	4/26/13 09:20	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X										X												
SL-562-SA7-SB-2.0-3.0	4/26/13 09:20	SO	None	1 - 4 oz glass	10 day													X																			
SL-562-SA7-SB-2.0-3.0	4/26/13 09:20	SO	None	1 - Encore	10 day																			X													

Special Instructions:

Sampler:

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
V. Cater	4/26/13								Pat Gh	4/27/13	0930

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C#1386003

Environmental Sample Administration
Receipt Documentation Log

Client/Project: CDM Smith

Date of Receipt: 4/27/13

Time of Receipt: 0930

Source Code: SO

Shipping Container Sealed: YES NO

Custody Seal Present * : YES NO

* Custody seal was intact unless otherwise noted in the discrepancy section

Package: Chilled Not Chilled

Temperature of Shipping Containers							
Cooler #	Thermometer ID	Temperature (°C)	Temp Bottle (TB) or Surface Temp (ST)	Wet Ice (WI) or Dry Ice (DI) or Ice Packs (IP)	Ice Present? Y/N	Loose (L) Bagged Ice (B) or NA	Comments
1	DT121	1.9	TB	WI	y	B	
2							
3							
4							
5							
6							

Number of Trip Blanks received NOT listed on chain of custody: Ø

Paperwork Discrepancy/Unpacking Problems:

Unpacker Signature/Emp#: Pat Gh 3472 **Date/Time:** 4/27/13 1030

Issued by Dept. 6042 Management

2174.06

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	**BMQL**	Below Minimum Quantitation Level
N.D.	none detected	**MPN**	Most Probable Number
TNTC	Too Numerous To Count	**CP Units**	cobalt-chloroplatinate units
IU	International Units	**NTU**	nephelometric turbidity units
umhos/cm	micromhos/cm	**ng**	nanogram(s)
C	degrees Celsius	**F**	degrees Fahrenheit
meq	milliequivalents	**lb.**	pound(s)
g	gram(s)	**kg**	kilogram(s)
µg	microgram(s)	**mg**	milligram(s)
mL	milliliter(s)	**L**	liter(s)
m3	cubic meter(s)	**µL**	microliter(s)
		pg/L	picogram/liter

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

J estimated value – The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	**B**	Value is <CRDL, but ≥IDL
B	Analyte was also detected in the blank	**E**	Estimated due to interference
C	Pesticide result confirmed by GC/MS	**M**	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	**N**	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	**S**	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	**U**	Compound was not detected
P	Concentration difference between primary and confirmation columns >25%	**W**	Post digestion spike out of control limits
U	Compound was not detected	*****	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	**+**	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as “analyze immediately” are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL LANCASTER LABORATORIES BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF LANCASTER LABORATORIES AND (B) WHETHER LANCASTER LABORATORIES HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Lancaster Laboratories which includes any conditions that vary from the Standard Terms and Conditions, and Lancaster hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

June 14, 2013

Project: Phase 3 Subarea 7

Submittal Date: 06/04/2013
Group Number: 1394291
SDG: PH045
PO Number: 1204-002-001-AL
State of Sample Origin: CA

Client Sample Description	Lancaster Labs (LLI) #
EB1-060313 Water	7079473
EB2-060313 Water	7079474
SL-526-SA7-SB-9.0-10.0 Soil	7079475
SL-532-SA7-SB-3.0-4.0 Soil	7079476
SL-533-SA7-SB-2.5-3.5 Soil	7079477
TB-060313 Water	7079478
SL-525-SA7-SB-4.0-5.0 Soil	7079479
SL-525-SA7-SB-9.5-10.5 Soil	7079480

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO	LLI	Attn: Nicole Maljovec
ELECTRONIC COPY TO	Eurofins Lancaster Labs	Attn: Natalie Luciano

Respectfully Submitted,

Natalie R. Luciano
Senior Specialist

(717) 556-7258

Sample Description: EB1-060313 Water
SSFL Phase 3 Subarea 7

LLI Sample # WW 7079473
LLI Group # 1394291
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/03/2013 15:00 by PH

Submitted: 06/04/2013 09:30
Reported: 06/14/2013 13:47

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

--EB1 SDG#: PH045-01EB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/l**		**ug/l**	**ug/l**	
12971	Acenaphthene	83-32-9	0.053	U	0.053	0.011	1
12971	Acenaphthylene	208-96-8	0.053	U	0.053	0.011	1
12971	Anthracene	120-12-7	0.053	U	0.053	0.011	1
12971	Benzo(a)anthracene	56-55-3	0.053	U	0.053	0.011	1
12971	Benzo(a)pyrene	50-32-8	0.053	U	0.053	0.011	1
12971	Benzo(b)fluoranthene	205-99-2	0.053	U	0.053	0.011	1
12971	Benzo(e)pyrene	192-97-2	0.053	U	0.053	0.011	1
12971	Benzo(g,h,i)perylene	191-24-2	0.053	U	0.053	0.011	1
12971	Benzo(k)fluoranthene	207-08-9	0.053	U	0.053	0.011	1
12971	Butylbenzylphthalate	85-68-7	1.1	U	1.1	0.053	1
12971	Di-n-butylphthalate	84-74-2	0.16	J	1.1	0.053	1
12971	Chrysene	218-01-9	0.053	U	0.053	0.011	1
12971	Dibenz(a,h)anthracene	53-70-3	0.053	U	0.053	0.011	1
12971	Diethylphthalate	84-66-2	0.11	J	1.1	0.053	1
12971	Dimethylphthalate	131-11-3	1.1	U	1.1	0.053	1
12971	Bis(2-Ethylhexyl)phthalate	117-81-7	0.16	J	1.1	0.053	1
12971	Fluoranthene	206-44-0	0.053	U	0.053	0.011	1
12971	Fluorene	86-73-7	0.053	U	0.053	0.011	1
12971	Indeno(1,2,3-cd)pyrene	193-39-5	0.053	U	0.053	0.011	1
12971	1-Methylnaphthalene	90-12-0	0.053	U	0.053	0.011	1
12971	2-Methylnaphthalene	91-57-6	0.053	U	0.053	0.011	1
12971	Naphthalene	91-20-3	0.053	U	0.053	0.032	1
12971	N-Nitrosodimethylamine	62-75-9	0.053	U	0.053	0.011	1
12971	Di-n-octylphthalate	117-84-0	1.1	U	1.1	0.053	1
12971	Phenanthrene	85-01-8	0.053	U	0.053	0.032	1
12971	Pyrene	129-00-0	0.053	U	0.053	0.011	1

Target analytes were detected in the method blank associated with the samples as noted on the QC Summary. Since the result is within the acceptance range allowed by the method, the data is reported.

GC Volatiles	**TPH GRO SW-8015B**		**ug/l**		**ug/l**	**ug/l**	
08229	TPH-GRO S.CA water C5-C12	n.a.	50	U	50	20	1
Pesticides/PCBs	**SW-846 8081B**		**ug/l**		**ug/l**	**ug/l**	
10589	Aldrin	309-00-2	0.0083	U	0.0083	0.0017	1
10589	Alpha BHC	319-84-6	0.0083	U	0.0083	0.0025	1
10589	Beta BHC	319-85-7	0.0083	U	0.0083	0.0028	1
10589	Gamma BHC - Lindane	58-89-9	0.0083	U	0.0083	0.0017	1
10589	Chlordane	57-74-9	0.41	U	0.41	0.13	1
10589	p,p-DDD	72-54-8	0.017	U	0.017	0.0041	1
10589	p,p-DDE	72-55-9	0.017	U	0.017	0.0041	1
10589	p,p-DDT	50-29-3	0.017	U	0.017	0.0043	1
10589	Delta BHC	319-86-8	0.0083	U	0.0083	0.0028	1
10589	Dieldrin	60-57-1	0.017	U	0.017	0.0044	1
10589	Endosulfan I	959-98-8	0.0083	U	0.0083	0.0036	1
10589	Endosulfan II	33213-65-9	0.017	U	0.017	0.012	1
10589	Endosulfan Sulfate	1031-07-8	0.017	U	0.017	0.0048	1
10589	Endrin	72-20-8	0.017	U	0.017	0.0067	1
10589	Endrin Aldehyde	7421-93-4	0.083	U	0.083	0.017	1
10589	Endrin Ketone	53494-70-5	0.017	U	0.017	0.0041	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: EB1-060313 Water
SSFL Phase 3 Subarea 7

LLI Sample # WW 7079473
LLI Group # 1394291
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/03/2013 15:00 by PH

Submitted: 06/04/2013 09:30
Reported: 06/14/2013 13:47

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

--EB1 SDG#: PH045-01EB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
Pesticides/PCBs	**SW-846 8081B**		**ug/l**	**ug/l**	**ug/l**	
10589	Heptachlor	76-44-8	0.0083 U	0.0083	0.0017	1
10589	Heptachlor Epoxide	1024-57-3	0.0083 U	0.0083	0.0019	1
10589	Methoxychlor	72-43-5	0.083 U	0.083	0.025	1
10589	Mirex	2385-85-5	0.21 U	0.21	0.070	1
10589	Toxaphene	8001-35-2	2.5 U	2.5	0.83	1
Pesticides/PCBs	**SW-846 8082A**		**ug/l**	**ug/l**	**ug/l**	
10591	Aroclor 5432	63496-31-1	0.41 U	0.41	0.083	1
10591	Aroclor 5442	12642-23-8	0.41 U	0.41	0.083	1
10591	Aroclor 5460	11126-42-4	0.41 U	0.41	0.091	1
10591	PCB-1016	12674-11-2	0.41 U	0.41	0.083	1
10591	PCB-1221	11104-28-2	0.41 U	0.41	0.083	1
10591	PCB-1232	11141-16-5	0.41 U	0.41	0.17	1
10591	PCB-1242	53469-21-9	0.41 U	0.41	0.083	1
10591	PCB-1248	12672-29-6	0.41 U	0.41	0.083	1
10591	PCB-1254	11097-69-1	0.41 U	0.41	0.083	1
10591	PCB-1260	11096-82-5	0.41 U	0.41	0.12	1
10591	PCB-1262	37324-23-5	0.41 U	0.41	0.17	1
10591	PCB-1268	11100-14-4	0.41 U	0.41	0.13	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/l**	**mg/l**	**mg/l**	
10365	EFH (C12-C14)	n.a.	0.098 U	0.098	0.049	1
10365	EFH (C15-C20)	n.a.	0.098 U	0.098	0.049	1
10365	EFH (C21-C30)	n.a.	0.098 U	0.098	0.049	1
10365	EFH (C30 - C40)	n.a.	0.49 U	0.49	0.098	1
10365	EFH (C8-C11)	n.a.	0.098 U	0.098	0.049	1
	The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.					
	The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.					
Metals	**SW-846 6010C**		**mg/l**	**mg/l**	**mg/l**	
01743	Aluminum	7429-90-5	0.400 U	0.400	0.0743	1
07044	Antimony	7440-36-0	0.0400 U	0.0400	0.0035	1
07035	Arsenic	7440-38-2	0.0400 U	0.0400	0.0068	1
07046	Barium	7440-39-3	0.0100 U	0.0100	0.00033	1
07047	Beryllium	7440-41-7	0.0100 U	0.0100	0.00067	1
08014	Boron	7440-42-8	0.100 U	0.100	0.0083	1
07049	Cadmium	7440-43-9	0.0100 U	0.0100	0.00036	1
01750	Calcium	7440-70-2	0.400 U	0.400	0.0640	1
07051	Chromium	7440-47-3	0.0300 U	0.0300	0.0011	1
07052	Cobalt	7440-48-4	0.0100 U	0.0100	0.00066	1
07053	Copper	7440-50-8	0.0200 U	0.0200	0.0021	1
01754	Iron	7439-89-6	0.400 U	0.400	0.0333	1
07055	Lead	7439-92-1	0.0300 U	0.0300	0.0051	1
01756	Lithium	7439-93-2	0.0400 U	0.0400	0.0060	1
01757	Magnesium	7439-95-4	0.200 U	0.200	0.0606	1
07058	Manganese	7439-96-5	0.0100 U	0.0100	0.00083	1
07060	Molybdenum	7439-98-7	0.0200 U	0.0200	0.0029	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: EB1-060313 Water
SSFL Phase 3 Subarea 7

LLI Sample # WW 7079473
LLI Group # 1394291
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/03/2013 15:00 by PH

Submitted: 06/04/2013 09:30
Reported: 06/14/2013 13:47

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

--EB1 SDG#: PH045-01EB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/l**	**mg/l**	**mg/l**	
07061	Nickel	7440-02-0	0.0200 U	0.0200	0.0011	1
10143	Phosphorus	7723-14-0	0.200 U	0.200	0.0052	1
01762	Potassium	7440-09-7	1.00 U	1.00	0.145	1
01767	Sodium	7440-23-5	2.00 U	2.00	0.167	1
07069	Tin	7440-31-5	0.0400 U	0.0400	0.0022	1
07070	Titanium	7440-32-6	0.0200 U	0.0200	0.0017	1
07071	Vanadium	7440-62-2	0.0100 U	0.0100	0.0013	1
07072	Zinc	7440-66-6	0.0400 U	0.0400	0.0020	1
10144	Zirconium	7440-67-7	0.100 U	0.100	0.0092	1
	SW-846 6020A		**mg/l**	**mg/l**	**mg/l**	
06041	Selenium	7782-49-2	0.0040 U	0.0040	0.00050	1
06042	Silver	7440-22-4	0.0010 U	0.0010	0.00010	1
06044	Strontium	7440-24-6	0.0020 U	0.0020	0.00022	1
06045	Thallium	7440-28-0	0.0010 U	0.0010	0.00015	1
	SW-846 7470A		**mg/l**	**mg/l**	**mg/l**	
00259	3b Mercury 7470A	7439-97-6	0.00020 U	0.00020	0.000070	1
Wet Chemistry	**SW-846 9040C**		**Std. Units**	**Std. Units**	**Std. Units**	
12152	28b. pH (9040B and 9040C)	n.a.	5.2	0.010	0.010	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: EB1-060313 Water
SSFL Phase 3 Subarea 7

LLI Sample # WW 7079473
LLI Group # 1394291
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/03/2013 15:00 by PH

Submitted: 06/04/2013 09:30
Reported: 06/14/2013 13:47

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

--EB1 SDG#: PH045-01EB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received MRL*	As Received EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		**pg/l**		**pg/l**	**pg/l**	
10915	2378-TCDD	1746-01-6	2.04	U	2.04	0.166	1
10915	12378-PeCDD	40321-76-4	0.160	JBQ	10.2	0.118	1
10915	123478-HxCDD	39227-28-6	10.2	U	10.2	0.0953	1
10915	123678-HxCDD	57653-85-7	0.112	JBQ	10.2	0.0984	1
10915	123789-HxCDD	19408-74-3	0.142	JB	10.2	0.0980	1
10915	1234678-HpCDD	35822-46-9	0.318	JB	10.2	0.0961	1
10915	OCDD	3268-87-9	0.856	JBQ	20.4	0.0988	1
10915	2378-TCDF	51207-31-9	0.112	J	2.04	0.0880	1
10915	12378-PeCDF	57117-41-6	0.438	JB	10.2	0.0688	1
10915	23478-PeCDF	57117-31-4	0.201	JBQ	10.2	0.0621	1
10915	123478-HxCDF	70648-26-9	0.262	JBQ	10.2	0.0620	1
10915	123678-HxCDF	57117-44-9	0.119	JB	10.2	0.0615	1
10915	123789-HxCDF	72918-21-9	0.205	JBQ	10.2	0.0596	1
10915	234678-HxCDF	60851-34-5	0.178	JB	10.2	0.0594	1
10915	1234678-HpCDF	67562-39-4	0.285	JB	10.2	0.0394	1
10915	1234789-HpCDF	55673-89-7	0.192	JBQ	10.2	0.0467	1
10915	OCDF	39001-02-0	0.449	JBQ	20.4	0.124	1
Toxic Equivalents	**EPA 1613B**		**pg/l**		**pg/l**	**pg/l**	
10915	TEQ WHO 2005 - EDLx0.0	n.a.	0.0744				1

Labeled Compounds	**%Rec**	**Windows**
13C12-2378-TCDD	58	25 - 164
13C12-12378-PeCDD	73	25 - 181
13C12-123478-HxCDD	80	32 - 141
13C12-123678-HxCDD	82	28 - 130
13C12-123789-HxCDD	79	28 - 130
13C12-1234678-HpCDD	79	23 - 140
13C12-OCDD	76	17 - 157
13C12-2378-TCDF	69	24 - 169
13C12-12378-PeCDF	73	24 - 185
13C12-23478-PeCDF	74	21 - 178
13C12-123478-HxCDF	81	26 - 152
13C12-123678-HxCDF	80	26 - 123
13C12-234678-HxCDF	80	28 - 136
13C12-123789-HxCDF	88	29 - 147
13C12-1234678-HpCDF	80	28 - 143
13C12-1234789-HpCDF	77	26 - 138
13C12-OCDF	73	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: EB1-060313 Water
SSFL Phase 3 Subarea 7

LLI Sample # WW 7079473
LLI Group # 1394291
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/03/2013 15:00 by PH

Submitted: 06/04/2013 09:30
Reported: 06/14/2013 13:47

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

--EB1 SDG#: PH045-01EB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received MRL*	As Received EDL	Dilution Factor

F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: EB1-060313 Water
SSFL Phase 3 Subarea 7

LLI Sample # WW 7079473
LLI Group # 1394291
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/03/2013 15:00 by PH

Submitted: 06/04/2013 09:30
Reported: 06/14/2013 13:47

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

--EB1 SDG#: PH045-01EB

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12971	7b SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13156WAL026	06/10/2013 18:50	Chad A Moline	1
10466	BNA Water Extraction SIM	SW-846 3510C	1	13156WAL026	06/06/2013 13:30	David S Schrum	1
08229	11b TPH by EPA 8015B GRO	TPH GRO SW-8015B	1	13162A20A	06/11/2013 12:49	Catherine J Schwarz	1
01146	GC VOA Water Prep	SW-846 5030B	1	13162A20A	06/11/2013 12:49	Catherine J Schwarz	1
10589	22b Pesticides by EPA 8081B	SW-846 8081B	1	131570010A	06/08/2013 01:05	Jamie L Brillhart	1
10591	21b PCBs and PCTs 8082A	SW-846 8082A	1	131570011A	06/10/2013 05:14	Monica M Souders	1
11121	PCB Waters Update IV Ext	SW-846 3510C	1	131570011A	06/06/2013 19:30	Seth A Farrier	1
11120	Pesticide Waters Update IV Ext	SW-846 3510C	1	131570010A	06/06/2013 19:30	Seth A Farrier	1
10365	10b TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	131570013A	06/07/2013 18:37	Heather E Williams	1
11203	EFH Waters Extraction	SW-846 3510C	1	131570013A	06/06/2013 22:00	Elaine F Stoltzfus	1
10915	17b Dioxin/Furan by EPA 1613B	EPA 1613B	1	13155003	06/07/2013 09:12	Joseph D Anderson	1
10914	Dioxins/Furans in Water - SepF	EPA 1613B	1	13155003	06/05/2013 13:00	Deborah M Zimmerman	1
01743	Aluminum	SW-846 6010C	1	131560635001	06/06/2013 19:08	John P Hook	1
07044	Antimony	SW-846 6010C	1	131560635001	06/06/2013 19:08	John P Hook	1
07035	Arsenic	SW-846 6010C	1	131560635001	06/06/2013 19:08	John P Hook	1
07046	Barium	SW-846 6010C	1	131560635001	06/06/2013 19:08	John P Hook	1
07047	Beryllium	SW-846 6010C	1	131560635001	06/06/2013 19:08	John P Hook	1
08014	Boron	SW-846 6010C	1	131560635001	06/06/2013 19:08	John P Hook	1
07049	Cadmium	SW-846 6010C	1	131560635001	06/06/2013 19:08	John P Hook	1
01750	Calcium	SW-846 6010C	1	131560635001	06/06/2013 19:08	John P Hook	1
07051	Chromium	SW-846 6010C	1	131560635001	06/06/2013 19:08	John P Hook	1
07052	Cobalt	SW-846 6010C	1	131560635001	06/06/2013 19:08	John P Hook	1
07053	Copper	SW-846 6010C	1	131560635001	06/06/2013 19:08	John P Hook	1
01754	Iron	SW-846 6010C	1	131560635001	06/06/2013 19:08	John P Hook	1
07055	Lead	SW-846 6010C	1	131560635001	06/06/2013 19:08	John P Hook	1
01756	Lithium	SW-846 6010C	1	131560635001	06/06/2013 19:08	John P Hook	1
01757	Magnesium	SW-846 6010C	1	131560635001	06/06/2013 19:08	John P Hook	1
07058	Manganese	SW-846 6010C	1	131560635001	06/06/2013 19:08	John P Hook	1
07060	Molybdenum	SW-846 6010C	1	131560635001	06/06/2013 19:08	John P Hook	1
07061	Nickel	SW-846 6010C	1	131560635001	06/06/2013 19:08	John P Hook	1
10143	Phosphorus	SW-846 6010C	1	131560635001	06/06/2013 19:08	John P Hook	1
01762	Potassium	SW-846 6010C	1	131560635001	06/06/2013 19:08	John P Hook	1
01767	Sodium	SW-846 6010C	1	131560635001	06/06/2013 19:08	John P Hook	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: EB1-060313 Water
SSFL Phase 3 Subarea 7

LLI Sample # WW 7079473
LLI Group # 1394291
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/03/2013 15:00 by PH

Submitted: 06/04/2013 09:30
Reported: 06/14/2013 13:47

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

--EB1 SDG#: PH045-01EB

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07069	Tin	SW-846 6010C	1	131560635001	06/06/2013 19:08	John P Hook	1
07070	Titanium	SW-846 6010C	1	131560635001	06/06/2013 19:08	John P Hook	1
07071	Vanadium	SW-846 6010C	1	131560635001	06/06/2013 19:08	John P Hook	1
07072	Zinc	SW-846 6010C	1	131560635001	06/06/2013 19:08	John P Hook	1
10144	Zirconium	SW-846 6010C	1	131560635001	06/06/2013 19:08	John P Hook	1
06041	Selenium	SW-846 6020A	1	131560639001B	06/11/2013 04:42	Choon Y Tian	1
06042	Silver	SW-846 6020A	1	131560639001A	06/11/2013 04:42	Choon Y Tian	1
06044	Strontium	SW-846 6020A	1	131560639001A	06/11/2013 04:42	Choon Y Tian	1
06045	Thallium	SW-846 6020A	1	131560639001A	06/11/2013 04:42	Choon Y Tian	1
00259	3b Mercury 7470A	SW-846 7470A	2	131575713007	06/10/2013 09:09	Damary Valentin	1
10635	WW SW846(IV) ICP Dig (tot rec)	SW-846 3005A	1	131560635001	06/06/2013 07:17	James L Mertz	1
10639	ICP/MS SW846 (IV) Water Digest	SW-846 3010A modified	1	131560639001	06/06/2013 07:15	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	2	131575713007	06/07/2013 17:10	Nelli S Markaryan	1
12152	28b. pH (9040B and 9040C)	SW-846 9040C	1	13155121521A	06/04/2013 21:10	Luz M Groff	1

*=This limit was used in the evaluation of the final result

Sample Description: EB2-060313 Water
SSFL Phase 3 Subarea 7

LLI Sample # WW 7079474
LLI Group # 1394291
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/03/2013 15:30 by PH

Submitted: 06/04/2013 09:30
Reported: 06/14/2013 13:47

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

EB-2- SDG#: PH045-02EB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/l**		**ug/l**	**ug/l**	
12971	Acenaphthene	83-32-9	0.052	U	0.052	0.010	1
12971	Acenaphthylene	208-96-8	0.052	U	0.052	0.010	1
12971	Anthracene	120-12-7	0.052	U	0.052	0.010	1
12971	Benzo(a)anthracene	56-55-3	0.052	U	0.052	0.010	1
12971	Benzo(a)pyrene	50-32-8	0.052	U	0.052	0.010	1
12971	Benzo(b)fluoranthene	205-99-2	0.052	U	0.052	0.010	1
12971	Benzo(e)pyrene	192-97-2	0.052	U	0.052	0.010	1
12971	Benzo(g,h,i)perylene	191-24-2	0.052	U	0.052	0.010	1
12971	Benzo(k)fluoranthene	207-08-9	0.052	U	0.052	0.010	1
12971	Butylbenzylphthalate	85-68-7	1.0	U	1.0	0.052	1
12971	Di-n-butylphthalate	84-74-2	0.12	J	1.0	0.052	1
12971	Chrysene	218-01-9	0.052	U	0.052	0.010	1
12971	Dibenz(a,h)anthracene	53-70-3	0.052	U	0.052	0.010	1
12971	Diethylphthalate	84-66-2	0.12	J	1.0	0.052	1
12971	Dimethylphthalate	131-11-3	1.0	U	1.0	0.052	1
12971	Bis(2-Ethylhexyl)phthalate	117-81-7	0.12	J	1.0	0.052	1
12971	Fluoranthene	206-44-0	0.052	U	0.052	0.010	1
12971	Fluorene	86-73-7	0.052	U	0.052	0.010	1
12971	Indeno(1,2,3-cd)pyrene	193-39-5	0.052	U	0.052	0.010	1
12971	1-Methylnaphthalene	90-12-0	0.052	U	0.052	0.010	1
12971	2-Methylnaphthalene	91-57-6	0.052	U	0.052	0.010	1
12971	Naphthalene	91-20-3	0.052	U	0.052	0.031	1
12971	N-Nitrosodimethylamine	62-75-9	0.052	U	0.052	0.010	1
12971	Di-n-octylphthalate	117-84-0	1.0	U	1.0	0.052	1
12971	Phenanthrene	85-01-8	0.052	U	0.052	0.031	1
12971	Pyrene	129-00-0	0.052	U	0.052	0.010	1

Target analytes were detected in the method blank associated with the samples as noted on the QC Summary. Since the result is within the acceptance range allowed by the method, the data is reported.

GC Volatiles	**TPH GRO SW-8015B**		**ug/l**		**ug/l**	**ug/l**	
08229	TPH-GRO S.CA water C5-C12	n.a.	50	U	50	20	1
Pesticides/PCBs	**SW-846 8081B**		**ug/l**		**ug/l**	**ug/l**	
10589	Aldrin	309-00-2	0.0082	U	0.0082	0.0016	1
10589	Alpha BHC	319-84-6	0.0082	U	0.0082	0.0025	1
10589	Beta BHC	319-85-7	0.0082	U	0.0082	0.0028	1
10589	Gamma BHC - Lindane	58-89-9	0.0082	U	0.0082	0.0016	1
10589	Chlordane	57-74-9	0.41	U	0.41	0.13	1
10589	p,p-DDD	72-54-8	0.016	U	0.016	0.0041	1
10589	p,p-DDE	72-55-9	0.016	U	0.016	0.0041	1
10589	p,p-DDT	50-29-3	0.016	U	0.016	0.0043	1
10589	Delta BHC	319-86-8	0.0082	U	0.0082	0.0028	1
10589	Dieldrin	60-57-1	0.016	U	0.016	0.0044	1
10589	Endosulfan I	959-98-8	0.0082	U	0.0082	0.0035	1
10589	Endosulfan II	33213-65-9	0.016	U	0.016	0.012	1
10589	Endosulfan Sulfate	1031-07-8	0.016	U	0.016	0.0048	1
10589	Endrin	72-20-8	0.016	U	0.016	0.0067	1
10589	Endrin Aldehyde	7421-93-4	0.082	U	0.082	0.016	1
10589	Endrin Ketone	53494-70-5	0.016	U	0.016	0.0041	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: EB2-060313 Water
SSFL Phase 3 Subarea 7

LLI Sample # WW 7079474
LLI Group # 1394291
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/03/2013 15:30 by PH

Submitted: 06/04/2013 09:30
Reported: 06/14/2013 13:47

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

EB-2- SDG#: PH045-02EB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
Pesticides/PCBs	**SW-846 8081B**		**ug/l**		**ug/l**	**ug/l**	
10589	Heptachlor	76-44-8	0.0082	U	0.0082	0.0016	1
10589	Heptachlor Epoxide	1024-57-3	0.0082	U	0.0082	0.0019	1
10589	Methoxychlor	72-43-5	0.082	U	0.082	0.025	1
10589	Mirex	2385-85-5	0.21	U	0.21	0.070	1
10589	Toxaphene	8001-35-2	2.5	U	2.5	0.82	1
Pesticides/PCBs	**SW-846 8082A**		**ug/l**		**ug/l**	**ug/l**	
10591	Aroclor 5432	63496-31-1	0.41	U	0.41	0.082	1
10591	Aroclor 5442	12642-23-8	0.41	U	0.41	0.082	1
10591	Aroclor 5460	11126-42-4	0.41	U	0.41	0.091	1
10591	PCB-1016	12674-11-2	0.41	U	0.41	0.082	1
10591	PCB-1221	11104-28-2	0.41	U	0.41	0.082	1
10591	PCB-1232	11141-16-5	0.41	U	0.41	0.16	1
10591	PCB-1242	53469-21-9	0.41	U	0.41	0.082	1
10591	PCB-1248	12672-29-6	0.41	U	0.41	0.082	1
10591	PCB-1254	11097-69-1	0.41	U	0.41	0.082	1
10591	PCB-1260	11096-82-5	0.41	U	0.41	0.12	1
10591	PCB-1262	37324-23-5	0.41	U	0.41	0.16	1
10591	PCB-1268	11100-14-4	0.41	U	0.41	0.13	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/l**		**mg/l**	**mg/l**	
10365	EFH (C12-C14)	n.a.	0.10	U	0.10	0.050	1
10365	EFH (C15-C20)	n.a.	0.10	U	0.10	0.050	1
10365	EFH (C21-C30)	n.a.	0.10	U	0.10	0.050	1
10365	EFH (C30 - C40)	n.a.	0.50	U	0.50	0.10	1
10365	EFH (C8-C11)	n.a.	0.10	U	0.10	0.050	1

The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.
The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.

Metals	**SW-846 6010C**		**mg/l**		**mg/l**	**mg/l**	
01743	Aluminum	7429-90-5	0.400	U	0.400	0.0743	1
07044	Antimony	7440-36-0	0.0400	U	0.0400	0.0035	1
07035	Arsenic	7440-38-2	0.0400	U	0.0400	0.0068	1
07046	Barium	7440-39-3	0.0100	U	0.0100	0.00033	1
07047	Beryllium	7440-41-7	0.0100	U	0.0100	0.00067	1
08014	Boron	7440-42-8	0.100	U	0.100	0.0083	1
07049	Cadmium	7440-43-9	0.0100	U	0.0100	0.00036	1
01750	Calcium	7440-70-2	0.400	U	0.400	0.0640	1
07051	Chromium	7440-47-3	0.0300	U	0.0300	0.0011	1
07052	Cobalt	7440-48-4	0.0100	U	0.0100	0.00066	1
07053	Copper	7440-50-8	0.0200	U	0.0200	0.0021	1
01754	Iron	7439-89-6	0.400	U	0.400	0.0333	1
07055	Lead	7439-92-1	0.0300	U	0.0300	0.0051	1
01756	Lithium	7439-93-2	0.0400	U	0.0400	0.0060	1
01757	Magnesium	7439-95-4	0.200	U	0.200	0.0606	1
07058	Manganese	7439-96-5	0.0100	U	0.0100	0.00083	1
07060	Molybdenum	7439-98-7	0.0200	U	0.0200	0.0029	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: EB2-060313 Water
SSFL Phase 3 Subarea 7

LLI Sample # WW 7079474
LLI Group # 1394291
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/03/2013 15:30 by PH

Submitted: 06/04/2013 09:30
Reported: 06/14/2013 13:47

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

EB-2- SDG#: PH045-02EB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/l**	**mg/l**	**mg/l**	
07061	Nickel	7440-02-0	0.0200 U	0.0200	0.0011	1
10143	Phosphorus	7723-14-0	0.200 U	0.200	0.0052	1
01762	Potassium	7440-09-7	1.00 U	1.00	0.145	1
01767	Sodium	7440-23-5	2.00 U	2.00	0.167	1
07069	Tin	7440-31-5	0.0400 U	0.0400	0.0022	1
07070	Titanium	7440-32-6	0.0200 U	0.0200	0.0017	1
07071	Vanadium	7440-62-2	0.0100 U	0.0100	0.0013	1
07072	Zinc	7440-66-6	0.0400 U	0.0400	0.0020	1
10144	Zirconium	7440-67-7	0.100 U	0.100	0.0092	1
	SW-846 6020A		**mg/l**	**mg/l**	**mg/l**	
06041	Selenium	7782-49-2	0.0040 U	0.0040	0.00050	1
06042	Silver	7440-22-4	0.0010 U	0.0010	0.00010	1
06044	Strontium	7440-24-6	0.0020 U	0.0020	0.00022	1
06045	Thallium	7440-28-0	0.0010 U	0.0010	0.00015	1
	SW-846 7470A		**mg/l**	**mg/l**	**mg/l**	
00259	3b Mercury 7470A	7439-97-6	0.00020 U	0.00020	0.000070	1
Wet Chemistry	**SW-846 9040C**		**Std. Units**	**Std. Units**	**Std. Units**	
12152	28b. pH (9040B and 9040C)	n.a.	5.0	0.010	0.010	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: EB2-060313 Water
SSFL Phase 3 Subarea 7

LLI Sample # WW 7079474
LLI Group # 1394291
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/03/2013 15:30 by PH

Submitted: 06/04/2013 09:30
Reported: 06/14/2013 13:47

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

EB-2- SDG#: PH045-02EB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received MRL*	As Received EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		**pg/l**		**pg/l**	**pg/l**	
10915	2378-TCDD	1746-01-6	2.02	U	2.02	0.134	1
10915	12378-PeCDD	40321-76-4	10.1	U	10.1	0.115	1
10915	123478-HxCDD	39227-28-6	10.1	U	10.1	0.103	1
10915	123678-HxCDD	57653-85-7	10.1	U	10.1	0.105	1
10915	123789-HxCDD	19408-74-3	0.162	JBQ	10.1	0.105	1
10915	1234678-HpCDD	35822-46-9	0.372	JBQ	10.1	0.106	1
10915	OCDD	3268-87-9	0.871	JB	20.2	0.0919	1
10915	2378-TCDF	51207-31-9	2.02	U	2.02	0.0864	1
10915	12378-PeCDF	57117-41-6	0.405	JBQ	10.1	0.0693	1
10915	23478-PeCDF	57117-31-4	0.250	JBQ	10.1	0.0669	1
10915	123478-HxCDF	70648-26-9	0.300	JBQ	10.1	0.0631	1
10915	123678-HxCDF	57117-44-9	0.137	JB	10.1	0.0590	1
10915	123789-HxCDF	72918-21-9	0.129	JBQ	10.1	0.0607	1
10915	234678-HxCDF	60851-34-5	0.195	JBQ	10.1	0.0585	1
10915	1234678-HpCDF	67562-39-4	0.275	JBQ	10.1	0.0407	1
10915	1234789-HpCDF	55673-89-7	0.202	JB	10.1	0.0468	1
10915	OCDF	39001-02-0	0.688	JB	20.2	0.119	1
Toxic Equivalents	**EPA 1613B**		**pg/l**		**pg/l**	**pg/l**	
10915	TEQ WHO 2005 - EDLx0.0	n.a.	0.0162				1

Labeled Compounds	**%Rec**	**Windows**
13C12-2378-TCDD	68	25 - 164
13C12-12378-PeCDD	76	25 - 181
13C12-123478-HxCDD	85	32 - 141
13C12-123678-HxCDD	86	28 - 130
13C12-123789-HxCDD	83	28 - 130
13C12-1234678-HpCDD	82	23 - 140
13C12-OCDD	80	17 - 157
13C12-2378-TCDF	69	24 - 169
13C12-12378-PeCDF	74	24 - 185
13C12-23478-PeCDF	76	21 - 178
13C12-123478-HxCDF	84	26 - 152
13C12-123678-HxCDF	85	26 - 123
13C12-234678-HxCDF	84	28 - 136
13C12-123789-HxCDF	93	29 - 147
13C12-1234678-HpCDF	85	28 - 143
13C12-1234789-HpCDF	82	26 - 138
13C12-OCDF	78	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: EB2-060313 Water
SSFL Phase 3 Subarea 7

LLI Sample # WW 7079474
LLI Group # 1394291
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/03/2013 15:30 by PH

Submitted: 06/04/2013 09:30
Reported: 06/14/2013 13:47

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

EB-2- SDG#: PH045-02EB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received MRL*	As Received EDL	Dilution Factor

F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: EB2-060313 Water
SSFL Phase 3 Subarea 7

LLI Sample # WW 7079474
LLI Group # 1394291
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/03/2013 15:30 by PH

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Reported: 06/14/2013 13:47

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

EB-2- SDG#: PH045-02EB

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12971	7b SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13156WAL026	06/10/2013 19:17	Chad A Moline	1
10466	BNA Water Extraction SIM	SW-846 3510C	1	13156WAL026	06/06/2013 13:30	David S Schrum	1
08229	11b TPH by EPA 8015B GRO	TPH GRO SW-8015B	1	13162A20A	06/11/2013 13:11	Catherine J Schwarz	1
01146	GC VOA Water Prep	SW-846 5030B	1	13162A20A	06/11/2013 13:11	Catherine J Schwarz	1
10589	22b Pesticides by EPA 8081B	SW-846 8081B	1	131570010A	06/08/2013 01:17	Jamie L Brillhart	1
10591	21b PCBs and PCTs 8082A	SW-846 8082A	1	131570011A	06/10/2013 05:33	Monica M Souders	1
11121	PCB Waters Update IV Ext	SW-846 3510C	1	131570011A	06/06/2013 19:30	Seth A Farrier	1
11120	Pesticide Waters Update IV Ext	SW-846 3510C	1	131570010A	06/06/2013 19:30	Seth A Farrier	1
10365	10b TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	131570013A	06/07/2013 18:58	Heather E Williams	1
11203	EFH Waters Extraction	SW-846 3510C	1	131570013A	06/06/2013 22:00	Elaine F Stoltzfus	1
10915	17b Dioxin/Furan by EPA 1613B	EPA 1613B	1	13155003	06/07/2013 10:08	Joseph D Anderson	1
10914	Dioxins/Furans in Water - SepF	EPA 1613B	1	13155003	06/05/2013 13:00	Deborah M Zimmerman	1
01743	Aluminum	SW-846 6010C	1	131560635001	06/06/2013 19:12	John P Hook	1
07044	Antimony	SW-846 6010C	1	131560635001	06/06/2013 19:12	John P Hook	1
07035	Arsenic	SW-846 6010C	1	131560635001	06/06/2013 19:12	John P Hook	1
07046	Barium	SW-846 6010C	1	131560635001	06/06/2013 19:12	John P Hook	1
07047	Beryllium	SW-846 6010C	1	131560635001	06/06/2013 19:12	John P Hook	1
08014	Boron	SW-846 6010C	1	131560635001	06/06/2013 19:12	John P Hook	1
07049	Cadmium	SW-846 6010C	1	131560635001	06/06/2013 19:12	John P Hook	1
01750	Calcium	SW-846 6010C	1	131560635001	06/06/2013 19:12	John P Hook	1
07051	Chromium	SW-846 6010C	1	131560635001	06/06/2013 19:12	John P Hook	1
07052	Cobalt	SW-846 6010C	1	131560635001	06/06/2013 19:12	John P Hook	1
07053	Copper	SW-846 6010C	1	131560635001	06/06/2013 19:12	John P Hook	1
01754	Iron	SW-846 6010C	1	131560635001	06/06/2013 19:12	John P Hook	1
07055	Lead	SW-846 6010C	1	131560635001	06/06/2013 19:12	John P Hook	1
01756	Lithium	SW-846 6010C	1	131560635001	06/06/2013 19:12	John P Hook	1
01757	Magnesium	SW-846 6010C	1	131560635001	06/06/2013 19:12	John P Hook	1
07058	Manganese	SW-846 6010C	1	131560635001	06/06/2013 19:12	John P Hook	1
07060	Molybdenum	SW-846 6010C	1	131560635001	06/06/2013 19:12	John P Hook	1
07061	Nickel	SW-846 6010C	1	131560635001	06/06/2013 19:12	John P Hook	1
10143	Phosphorus	SW-846 6010C	1	131560635001	06/06/2013 19:12	John P Hook	1
01762	Potassium	SW-846 6010C	1	131560635001	06/06/2013 19:12	John P Hook	1
01767	Sodium	SW-846 6010C	1	131560635001	06/06/2013 19:12	John P Hook	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: EB2-060313 Water
SSFL Phase 3 Subarea 7

LLI Sample # WW 7079474
LLI Group # 1394291
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/03/2013 15:30 by PH

Submitted: 06/04/2013 09:30
Reported: 06/14/2013 13:47

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

EB-2- SDG#: PH045-02EB

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07069	Tin	SW-846 6010C	1	131560635001	06/06/2013 19:12	John P Hook	1
07070	Titanium	SW-846 6010C	1	131560635001	06/06/2013 19:12	John P Hook	1
07071	Vanadium	SW-846 6010C	1	131560635001	06/06/2013 19:12	John P Hook	1
07072	Zinc	SW-846 6010C	1	131560635001	06/06/2013 19:12	John P Hook	1
10144	Zirconium	SW-846 6010C	1	131560635001	06/06/2013 19:12	John P Hook	1
06041	Selenium	SW-846 6020A	1	131560639001B	06/11/2013 04:44	Choon Y Tian	1
06042	Silver	SW-846 6020A	1	131560639001A	06/11/2013 04:44	Choon Y Tian	1
06044	Strontium	SW-846 6020A	1	131560639001A	06/11/2013 04:44	Choon Y Tian	1
06045	Thallium	SW-846 6020A	1	131560639001A	06/11/2013 04:44	Choon Y Tian	1
00259	3b Mercury 7470A	SW-846 7470A	2	131575713007	06/10/2013 09:11	Damary Valentin	1
10635	WW SW846(IV) ICP Dig (tot rec)	SW-846 3005A	1	131560635001	06/06/2013 07:17	James L Mertz	1
10639	ICP/MS SW846 (IV) Water Digest	SW-846 3010A modified	1	131560639001	06/06/2013 07:15	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	2	131575713007	06/07/2013 17:10	Nelli S Markaryan	1
12152	28b. pH (9040B and 9040C)	SW-846 9040C	1	13155121521A	06/04/2013 21:10	Luz M Groff	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-526-SA7-SB-9.0-10.0 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7079475
LLI Group # 1394291
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/03/2013 11:35 by VC

Submitted: 06/04/2013 09:30
Reported: 06/14/2013 13:47

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

526-- SDG#: PH045-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.8	U	1.8	0.72	1
12969	Acenaphthylene	208-96-8	1.8	U	1.8	0.36	1
12969	Anthracene	120-12-7	1.8	U	1.8	0.36	1
12969	Benzo(a)anthracene	56-55-3	1.8	U	1.8	0.72	1
12969	Benzo(a)pyrene	50-32-8	1.8	U	1.8	0.72	1
12969	Benzo(b)fluoranthene	205-99-2	1.8	U	1.8	0.72	1
12969	Benzo(e)pyrene	192-97-2	18	U	18	3.6	1
12969	Benzo(g,h,i)perylene	191-24-2	1.8	U	1.8	0.72	1
12969	Benzo(k)fluoranthene	207-08-9	1.8	U	1.8	0.72	1
12969	Butylbenzylphthalate	85-68-7	20	U	20	6.5	1
12969	Di-n-butylphthalate	84-74-2	20	U	20	6.5	1
12969	Chrysene	218-01-9	1.8	U	1.8	0.36	1
12969	Dibenz(a,h)anthracene	53-70-3	1.8	U	1.8	0.72	1
12969	Diethylphthalate	84-66-2	20	U	20	6.5	1
12969	Dimethylphthalate	131-11-3	20	U	20	6.5	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	20	U	20	6.5	1
12969	Fluoranthene	206-44-0	1.8	U	1.8	0.72	1
12969	Fluorene	86-73-7	1.8	U	1.8	0.72	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.8	U	1.8	0.72	1
12969	1-Methylnaphthalene	90-12-0	1.8	U	1.8	0.72	1
12969	2-Methylnaphthalene	91-57-6	1.8	U	1.8	0.72	1
12969	Naphthalene	91-20-3	1.8	U	1.8	0.72	1
12969	N-Nitrosodimethylamine	62-75-9	1.8	U	1.8	0.72	1
12969	Di-n-octylphthalate	117-84-0	20	U	20	6.5	1
12969	Phenanthrene	85-01-8	1.8	U	1.8	0.72	1
12969	Pyrene	129-00-0	1.8	U	1.8	0.72	1
GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	1.1	U	1.1	0.2	25.46
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
10592	Aroclor 5432	63496-31-1	36	U	36	11	1
10592	Aroclor 5442	12642-23-8	36	U	36	11	1
10592	Aroclor 5460	11126-42-4	36	U	36	11	1
10592	PCB-1016	12674-11-2	18	U	18	3.6	1
10592	PCB-1221	11104-28-2	18	U	18	5.5	1
10592	PCB-1232	11141-16-5	18	U	18	4.4	1
10592	PCB-1242	53469-21-9	18	U	18	4.4	1
10592	PCB-1248	12672-29-6	18	U	18	3.6	1
10592	PCB-1254	11097-69-1	18	U	18	4.7	1
10592	PCB-1260	11096-82-5	18	U	18	4.2	1
10592	PCB-1262	37324-23-5	18	U	18	3.6	1
10592	PCB-1268	11100-14-4	18	U	18	3.6	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.4	U	5.4	2.2	1
12952	EFH (C15-C20)	n.a.	5.4	U	5.4	2.2	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-526-SA7-SB-9.0-10.0 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7079475
LLI Group # 1394291
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/03/2013 11:35 by VC

Submitted: 06/04/2013 09:30
Reported: 06/14/2013 13:47

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

526-- SDG#: PH045-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C21-C30)	n.a.	5.4	U	5.4	2.2	1
12952	EFH (C30-C40)	n.a.	11	U	11	4.3	1
12952	EFH (C8-C11)	n.a.	5.4	U	5.4	2.2	1
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	18,400		42.5	8.19	1
06944	Antimony	7440-36-0	0.959	J	4.25	0.531	1
06935	Arsenic	7440-38-2	6.72		4.25	0.351	1
06946	Barium	7440-39-3	41.6		1.06	0.0351	1
06947	Beryllium	7440-41-7	0.789	J	1.06	0.0712	1
07914	Boron	7440-42-8	7.42	J	10.6	0.882	1
06949	Cadmium	7440-43-9	0.402	J	1.06	0.0351	1
01650	Calcium	7440-70-2	1,720		21.2	4.27	1
06951	Chromium	7440-47-3	15.0		3.19	0.0935	1
06952	Cobalt	7440-48-4	4.07		1.06	0.0956	1
06953	Copper	7440-50-8	5.12		2.12	0.191	1
01654	Iron	7439-89-6	20,600		42.5	4.04	1
06955	Lead	7439-92-1	5.96		3.19	0.499	1
01656	Lithium	7439-93-2	23.4		4.2	0.58	1
01657	Magnesium	7439-95-4	3,220		10.6	1.84	1
06958	Manganese	7439-96-5	180		1.06	0.0882	1
06960	Molybdenum	7439-98-7	1.15	J	2.12	0.181	1
06961	Nickel	7440-02-0	5.91		2.12	0.117	1
10145	Phosphorus	7723-14-0	234		10.6	0.542	1
01662	Potassium	7440-09-7	1,330		106	14.3	1
01667	Sodium	7440-23-5	106		106	17.7	1
06969	Tin	7440-31-5	2.95	J	10.6	0.234	1
06970	Titanium	7440-32-6	1,010		1.06	0.181	1
06971	Vanadium	7440-62-2	36.6		1.06	0.117	1
06972	Zinc	7440-66-6	34.8		4.25	0.212	1
10146	Zirconium	7440-67-7	2.93	J	5.31	0.882	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.112	J	0.425	0.106	2
06142	Silver	7440-22-4	0.0362	J	0.212	0.0212	2
06144	Strontium	7440-24-6	11.9		0.425	0.0361	2
06145	Thallium	7440-28-0	0.176	J	0.212	0.0319	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0176	U	0.0176	0.0105	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045D	n.a.	6.98		0.0100	0.0100	1
	The pH was measured in water at 23.1 C.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	7.7		0.10	0.10	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-526-SA7-SB-9.0-10.0 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7079475
LLI Group # 1394291
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/03/2013 11:35 by VC

Submitted: 06/04/2013 09:30
Reported: 06/14/2013 13:47

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

526-- SDG#: PH045-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Wet Chemistry	**EPA 160.3 modified**		%	%	%	

Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-526-SA7-SB-9.0-10.0 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7079475
LLI Group # 1394291
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/03/2013 11:35 by VC

Submitted: 06/04/2013 09:30
Reported: 06/14/2013 13:47

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

526-- SDG#: PH045-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0454	JQ	1.08	0.0255	1
11031	12378-PeCDD	40321-76-4	0.174	JB	5.38	0.0352	1
11031	123478-HxCDD	39227-28-6	0.0742	JQ	5.38	0.0215	1
11031	123678-HxCDD	57653-85-7	0.0844	JB	5.38	0.0235	1
11031	123789-HxCDD	19408-74-3	0.0441	JBQ	5.38	0.0239	1
11031	1234678-HpCDD	35822-46-9	1.52	JB	5.38	0.0889	1
11031	OCDD	3268-87-9	279	B	10.8	0.0570	1
11031	2378-TCDF	51207-31-9	0.0708	JQ	1.08	0.0293	1
11031	12378-PeCDF	57117-41-6	0.218	JBQ	5.38	0.0172	1
11031	23478-PeCDF	57117-31-4	0.163	JBQ	5.38	0.0161	1
11031	123478-HxCDF	70648-26-9	0.117	JB	5.38	0.0201	1
11031	123678-HxCDF	57117-44-9	0.114	JB	5.38	0.0189	1
11031	123789-HxCDF	72918-21-9	0.0525	JBQ	5.38	0.0233	1
11031	234678-HxCDF	60851-34-5	0.0671	JB	5.38	0.0201	1
11031	1234678-HpCDF	67562-39-4	0.0935	JBQ	5.38	0.0143	1
11031	1234789-HpCDF	55673-89-7	0.0301	JBQ	5.38	0.0222	1
11031	OCDF	39001-02-0	0.293	JBQ	10.8	0.0341	1
Toxic Equivalents	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.311				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	69	25 - 164
13C12-12378-PeCDD	92	25 - 181
13C12-123478-HxCDD	80	32 - 141
13C12-123678-HxCDD	80	28 - 130
13C12-123789-HxCDD	79	28 - 130
13C12-1234678-HpCDD	80	23 - 140
13C12-OCDD	87	17 - 157
13C12-2378-TCDF	73	24 - 169
13C12-12378-PeCDF	98	24 - 185
13C12-23478-PeCDF	94	21 - 178
13C12-123478-HxCDF	74	26 - 152
13C12-123678-HxCDF	79	26 - 123
13C12-234678-HxCDF	74	28 - 136
13C12-123789-HxCDF	73	29 - 147
13C12-1234678-HpCDF	88	28 - 143
13C12-1234789-HpCDF	67	26 - 138
13C12-OCDF	68	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-526-SA7-SB-9.0-10.0 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7079475
LLI Group # 1394291
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/03/2013 11:35 by VC

Submitted: 06/04/2013 09:30
Reported: 06/14/2013 13:47

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

526-- SDG#: PH045-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-526-SA7-SB-9.0-10.0 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7079475
LLI Group # 1394291
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/03/2013 11:35 by VC

Submitted: 06/04/2013 09:30
Reported: 06/14/2013 13:47

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

526-- SDG#: PH045-03

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13157SLB026	06/10/2013	23:42	Chad A Moline	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	13157SLB026	06/06/2013	18:00	Nicholas W Shroyer	1
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	13160A16A	06/09/2013	16:40	Laura M Krieger	25.46
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201315531309	06/04/2013	21:24	Lois E Hiltz	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201315531309	06/04/2013	21:25	Lois E Hiltz	n.a.
10592	19a PCBs and PCTs 8082A	SW-846 8082A	1	131580010A	06/10/2013	08:19	Monica M Souders	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	131580010A	06/08/2013	01:30	Karen L Beyer	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	131580013A	06/10/2013	21:53	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	131580013A	06/09/2013	08:00	Joseph S Feister	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13161007	06/12/2013	06:31	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13161007	06/10/2013	12:00	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010C	1	131600637001	06/11/2013	17:21	John P Hook	1
06944	Antimony	SW-846 6010C	1	131600637001	06/11/2013	17:21	John P Hook	1
06935	Arsenic	SW-846 6010C	1	131600637001	06/11/2013	17:21	John P Hook	1
06946	Barium	SW-846 6010C	1	131600637001	06/11/2013	17:21	John P Hook	1
06947	Beryllium	SW-846 6010C	1	131600637001	06/11/2013	17:21	John P Hook	1
07914	Boron	SW-846 6010C	1	131600637001	06/11/2013	17:21	John P Hook	1
06949	Cadmium	SW-846 6010C	1	131600637001	06/11/2013	17:21	John P Hook	1
01650	Calcium	SW-846 6010C	1	131600637001	06/11/2013	17:21	John P Hook	1
06951	Chromium	SW-846 6010C	1	131600637001	06/11/2013	17:21	John P Hook	1
06952	Cobalt	SW-846 6010C	1	131600637001	06/11/2013	17:21	John P Hook	1
06953	Copper	SW-846 6010C	1	131600637001	06/11/2013	17:21	John P Hook	1
01654	Iron	SW-846 6010C	1	131600637001	06/11/2013	17:21	John P Hook	1
06955	Lead	SW-846 6010C	1	131600637001	06/11/2013	17:21	John P Hook	1
01656	Lithium	SW-846 6010C	1	131600637001	06/11/2013	17:21	John P Hook	1
01657	Magnesium	SW-846 6010C	1	131600637001	06/11/2013	17:21	John P Hook	1
06958	Manganese	SW-846 6010C	1	131600637001	06/11/2013	17:21	John P Hook	1
06960	Molybdenum	SW-846 6010C	1	131600637001	06/11/2013	17:21	John P Hook	1
06961	Nickel	SW-846 6010C	1	131600637001	06/11/2013	17:21	John P Hook	1
10145	Phosphorus	SW-846 6010C	1	131600637001	06/11/2013	17:21	John P Hook	1
01662	Potassium	SW-846 6010C	1	131600637001	06/11/2013	17:21	John P Hook	1
01667	Sodium	SW-846 6010C	1	131600637001	06/11/2013	17:21	John P Hook	1
06969	Tin	SW-846 6010C	1	131600637001	06/11/2013	17:21	John P Hook	1
06970	Titanium	SW-846 6010C	1	131600637001	06/11/2013	17:21	John P Hook	1
06971	Vanadium	SW-846 6010C	1	131600637001	06/11/2013	17:21	John P Hook	1
06972	Zinc	SW-846 6010C	1	131600637001	06/11/2013	17:21	John P Hook	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-526-SA7-SB-9.0-10.0 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7079475
LLI Group # 1394291
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/03/2013 11:35 by VC

Submitted: 06/04/2013 09:30
Reported: 06/14/2013 13:47

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

526-- SDG#: PH045-03

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10146	Zirconium	SW-846 6010C	1	131600637001	06/11/2013 17:21	John P Hook	1
06141	Selenium	SW-846 6020A	1	131600637001B	06/11/2013 18:18	David K Beck	2
06142	Silver	SW-846 6020A	1	131600637001A	06/11/2013 18:18	David K Beck	2
06144	Strontium	SW-846 6020A	1	131600637001A	06/11/2013 18:18	David K Beck	2
06145	Thallium	SW-846 6020A	1	131600637001A	06/11/2013 18:18	David K Beck	2
00159	3a Mercury 7471A	SW-846 7471B	1	131600638001	06/11/2013 18:46	Katlin N Cataldi	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	131600637001	06/10/2013 23:43	Annamaria Stipkovits	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	131600638001	06/11/2013 04:00	Annamaria Stipkovits	1
00394	15a pH by 9045D	SW-846 9045D modified	1	13155039401A	06/04/2013 21:00	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13162162401A	06/11/2013 23:07	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-532-SA7-SB-3.0-4.0 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7079476
LLI Group # 1394291
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/03/2013 10:00 by VC

Submitted: 06/04/2013 09:30
Reported: 06/14/2013 13:47

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

532-- SDG#: PH045-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.70	1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.35	1
12969	Anthracene	120-12-7	1.7	U	1.7	0.35	1
12969	Benzo(a)anthracene	56-55-3	1.7	U	1.7	0.70	1
12969	Benzo(a)pyrene	50-32-8	1.7	U	1.7	0.70	1
12969	Benzo(b)fluoranthene	205-99-2	1.7	U	1.7	0.70	1
12969	Benzo(e)pyrene	192-97-2	18	U	18	3.5	1
12969	Benzo(g,h,i)perylene	191-24-2	1.7	U	1.7	0.70	1
12969	Benzo(k)fluoranthene	207-08-9	1.7	U	1.7	0.70	1
12969	Butylbenzylphthalate	85-68-7	19	U	19	6.3	1
12969	Di-n-butylphthalate	84-74-2	19	U	19	6.3	1
12969	Chrysene	218-01-9	0.58	J	1.7	0.35	1
12969	Dibenz(a,h)anthracene	53-70-3	1.7	U	1.7	0.70	1
12969	Diethylphthalate	84-66-2	19	U	19	6.3	1
12969	Dimethylphthalate	131-11-3	19	U	19	6.3	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	7.5	J	19	6.3	1
12969	Fluoranthene	206-44-0	0.75	J	1.7	0.70	1
12969	Fluorene	86-73-7	1.7	U	1.7	0.70	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.7	U	1.7	0.70	1
12969	1-Methylnaphthalene	90-12-0	1.7	U	1.7	0.70	1
12969	2-Methylnaphthalene	91-57-6	1.7	U	1.7	0.70	1
12969	Naphthalene	91-20-3	1.0	J	1.7	0.70	1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.70	1
12969	Di-n-octylphthalate	117-84-0	19	U	19	6.3	1
12969	Phenanthrene	85-01-8	1.7	U	1.7	0.70	1
12969	Pyrene	129-00-0	1.7	U	1.7	0.70	1
GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	1.1	U	1.1	0.2	26.6
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
10592	Aroclor 5432	63496-31-1	34	U	34	10	1
10592	Aroclor 5442	12642-23-8	34	U	34	10	1
10592	Aroclor 5460	11126-42-4	34	U	34	10	1
10592	PCB-1016	12674-11-2	18	U	18	3.4	1
10592	PCB-1221	11104-28-2	18	U	18	5.3	1
10592	PCB-1232	11141-16-5	18	U	18	4.3	1
10592	PCB-1242	53469-21-9	18	U	18	4.3	1
10592	PCB-1248	12672-29-6	18	U	18	3.4	1
10592	PCB-1254	11097-69-1	18	U	18	4.6	1
10592	PCB-1260	11096-82-5	18	U	18	4.1	1
10592	PCB-1262	37324-23-5	18	U	18	3.4	1
10592	PCB-1268	11100-14-4	18	U	18	3.4	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.2	U	5.2	2.1	1
12952	EFH (C15-C20)	n.a.	5.2	U	5.2	2.1	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-532-SA7-SB-3.0-4.0 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7079476
LLI Group # 1394291
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/03/2013 10:00 by VC

Submitted: 06/04/2013 09:30
Reported: 06/14/2013 13:47

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

532-- SDG#: PH045-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C21-C30)	n.a.	6.5		5.2	2.1	1
12952	EFH (C30-C40)	n.a.	15		10	4.2	1
12952	EFH (C8-C11)	n.a.	5.2	U	5.2	2.1	1
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	17,400		41.7	8.04	1
06944	Antimony	7440-36-0	0.822	J	4.17	0.521	1
06935	Arsenic	7440-38-2	5.40		4.17	0.344	1
06946	Barium	7440-39-3	130		1.04	0.0344	1
06947	Beryllium	7440-41-7	0.802	J	1.04	0.0699	1
07914	Boron	7440-42-8	7.47	J	10.4	0.865	1
06949	Cadmium	7440-43-9	0.667	J	1.04	0.0344	1
01650	Calcium	7440-70-2	4,150		20.9	4.19	1
06951	Chromium	7440-47-3	38.8		3.13	0.0918	1
06952	Cobalt	7440-48-4	7.49		1.04	0.0938	1
06953	Copper	7440-50-8	8.78		2.09	0.188	1
01654	Iron	7439-89-6	29,600		83.4	7.92	2
06955	Lead	7439-92-1	6.11		3.13	0.490	1
01656	Lithium	7439-93-2	37.3		4.2	0.57	1
01657	Magnesium	7439-95-4	8,940		10.4	1.80	1
06958	Manganese	7439-96-5	426		1.04	0.0865	1
06960	Molybdenum	7439-98-7	0.514	J	2.09	0.177	1
06961	Nickel	7440-02-0	22.7		2.09	0.115	1
10145	Phosphorus	7723-14-0	524		10.4	0.532	1
01662	Potassium	7440-09-7	3,310		104	14.1	1
01667	Sodium	7440-23-5	118		104	17.4	1
06969	Tin	7440-31-5	3.48	J	10.4	0.229	1
06970	Titanium	7440-32-6	1,740		1.04	0.177	1
06971	Vanadium	7440-62-2	54.3		1.04	0.115	1
06972	Zinc	7440-66-6	78.4		4.17	0.209	1
10146	Zirconium	7440-67-7	3.05	J	5.21	0.865	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.151	J	0.417	0.104	2
06142	Silver	7440-22-4	0.209	U	0.209	0.0209	2
06144	Strontium	7440-24-6	15.2		0.417	0.0355	2
06145	Thallium	7440-28-0	0.352		0.209	0.0313	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0206		0.0171	0.0103	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045D	n.a.	7.06		0.0100	0.0100	1
	The pH was measured in water at 22.3 C.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	4.1		0.10	0.10	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-532-SA7-SB-3.0-4.0 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7079476
LLI Group # 1394291
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/03/2013 10:00 by VC

Submitted: 06/04/2013 09:30
Reported: 06/14/2013 13:47

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

532-- SDG#: PH045-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Wet Chemistry	**EPA 160.3 modified**		%	%	%	

Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-532-SA7-SB-3.0-4.0 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7079476
LLI Group # 1394291
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/03/2013 10:00 by VC

Submitted: 06/04/2013 09:30
Reported: 06/14/2013 13:47

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

532-- SDG#: PH045-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0439	JQ	1.03	0.0405	1
11031	12378-PeCDD	40321-76-4	0.167	JB	5.17	0.0449	1
11031	123478-HxCDD	39227-28-6	0.0946	JQ	5.17	0.0340	1
11031	123678-HxCDD	57653-85-7	0.139	JB	5.17	0.0375	1
11031	123789-HxCDD	19408-74-3	0.119	JBQ	5.17	0.0398	1
11031	1234678-HpCDD	35822-46-9	1.98	JB	5.17	0.0457	1
11031	OCDD	3268-87-9	17.5	B	10.3	0.0351	1
11031	2378-TCDF	51207-31-9	0.0561	JQ	1.03	0.0465	1
11031	12378-PeCDF	57117-41-6	0.181	JB	5.17	0.0208	1
11031	23478-PeCDF	57117-31-4	0.208	JB	5.17	0.0203	1
11031	123478-HxCDF	70648-26-9	0.0819	JBQ	5.17	0.0226	1
11031	123678-HxCDF	57117-44-9	0.101	JBQ	5.17	0.0211	1
11031	123789-HxCDF	72918-21-9	5.17	U	5.17	0.0259	1
11031	234678-HxCDF	60851-34-5	0.0621	JBQ	5.17	0.0214	1
11031	1234678-HpCDF	67562-39-4	0.304	JB	5.17	0.0185	1
11031	1234789-HpCDF	55673-89-7	0.0590	JBQ	5.17	0.0307	1
11031	OCDF	39001-02-0	0.619	JB	10.3	0.0373	1
Toxic Equivalents	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.277				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	71	25 - 164
13C12-12378-PeCDD	92	25 - 181
13C12-123478-HxCDD	78	32 - 141
13C12-123678-HxCDD	82	28 - 130
13C12-123789-HxCDD	78	28 - 130
13C12-1234678-HpCDD	81	23 - 140
13C12-OCDD	92	17 - 157
13C12-2378-TCDF	76	24 - 169
13C12-12378-PeCDF	104	24 - 185
13C12-23478-PeCDF	96	21 - 178
13C12-123478-HxCDF	74	26 - 152
13C12-123678-HxCDF	80	26 - 123
13C12-234678-HxCDF	72	28 - 136
13C12-123789-HxCDF	72	29 - 147
13C12-1234678-HpCDF	95	28 - 143
13C12-1234789-HpCDF	69	26 - 138
13C12-OCDF	69	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration

*=This limit was used in the evaluation of the final result

Sample Description: SL-532-SA7-SB-3.0-4.0 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7079476
LLI Group # 1394291
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/03/2013 10:00 by VC

Submitted: 06/04/2013 09:30
Reported: 06/14/2013 13:47

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

532-- SDG#: PH045-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-532-SA7-SB-3.0-4.0 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7079476
LLI Group # 1394291
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/03/2013 10:00 by VC

Submitted: 06/04/2013 09:30
Reported: 06/14/2013 13:47

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

532-- SDG#: PH045-04

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13157SLB026	06/11/2013	06:25	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	13157SLB026	06/06/2013	18:00	Nicholas W Shroyer	1
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	13160A16A	06/09/2013	17:18	Laura M Krieger	26.6
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201315531309	06/04/2013	21:27	Lois E Hiltz	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201315531309	06/04/2013	21:27	Lois E Hiltz	n.a.
10592	19a PCBs and PCTs 8082A	SW-846 8082A	1	131580010A	06/10/2013	18:36	Monica M Souders	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	131580010A	06/08/2013	01:30	Karen L Beyer	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	131580013A	06/10/2013	22:14	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	131580013A	06/09/2013	08:00	Joseph S Feister	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13161007	06/12/2013	07:27	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13161007	06/10/2013	12:00	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010C	1	131600637001	06/11/2013	17:25	John P Hook	1
06944	Antimony	SW-846 6010C	1	131600637001	06/11/2013	17:25	John P Hook	1
06935	Arsenic	SW-846 6010C	1	131600637001	06/11/2013	17:25	John P Hook	1
06946	Barium	SW-846 6010C	1	131600637001	06/11/2013	17:25	John P Hook	1
06947	Beryllium	SW-846 6010C	1	131600637001	06/11/2013	17:25	John P Hook	1
07914	Boron	SW-846 6010C	1	131600637001	06/11/2013	17:25	John P Hook	1
06949	Cadmium	SW-846 6010C	1	131600637001	06/11/2013	17:25	John P Hook	1
01650	Calcium	SW-846 6010C	1	131600637001	06/11/2013	17:25	John P Hook	1
06951	Chromium	SW-846 6010C	1	131600637001	06/11/2013	17:25	John P Hook	1
06952	Cobalt	SW-846 6010C	1	131600637001	06/11/2013	17:25	John P Hook	1
06953	Copper	SW-846 6010C	1	131600637001	06/11/2013	17:25	John P Hook	1
01654	Iron	SW-846 6010C	1	131600637001	06/11/2013	18:23	John P Hook	2
06955	Lead	SW-846 6010C	1	131600637001	06/11/2013	17:25	John P Hook	1
01656	Lithium	SW-846 6010C	1	131600637001	06/11/2013	17:25	John P Hook	1
01657	Magnesium	SW-846 6010C	1	131600637001	06/11/2013	17:25	John P Hook	1
06958	Manganese	SW-846 6010C	1	131600637001	06/11/2013	17:25	John P Hook	1
06960	Molybdenum	SW-846 6010C	1	131600637001	06/11/2013	17:25	John P Hook	1
06961	Nickel	SW-846 6010C	1	131600637001	06/11/2013	17:25	John P Hook	1
10145	Phosphorus	SW-846 6010C	1	131600637001	06/11/2013	17:25	John P Hook	1
01662	Potassium	SW-846 6010C	1	131600637001	06/11/2013	17:25	John P Hook	1
01667	Sodium	SW-846 6010C	1	131600637001	06/11/2013	17:25	John P Hook	1
06969	Tin	SW-846 6010C	1	131600637001	06/11/2013	17:25	John P Hook	1
06970	Titanium	SW-846 6010C	1	131600637001	06/11/2013	17:25	John P Hook	1
06971	Vanadium	SW-846 6010C	1	131600637001	06/11/2013	17:25	John P Hook	1
06972	Zinc	SW-846 6010C	1	131600637001	06/11/2013	17:25	John P Hook	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-532-SA7-SB-3.0-4.0 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7079476
LLI Group # 1394291
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/03/2013 10:00 by VC

Submitted: 06/04/2013 09:30
Reported: 06/14/2013 13:47

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

532-- SDG#: PH045-04

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10146	Zirconium	SW-846 6010C	1	131600637001	06/11/2013 17:25	John P Hook	1
06141	Selenium	SW-846 6020A	1	131600637001B	06/11/2013 18:20	David K Beck	2
06142	Silver	SW-846 6020A	1	131600637001A	06/11/2013 18:20	David K Beck	2
06144	Strontium	SW-846 6020A	1	131600637001A	06/11/2013 18:20	David K Beck	2
06145	Thallium	SW-846 6020A	1	131600637001A	06/11/2013 18:20	David K Beck	2
00159	3a Mercury 7471A	SW-846 7471B	1	131600638001	06/11/2013 18:48	Katlin N Cataldi	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	131600637001	06/10/2013 23:43	Annamaria Stipkovits	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	131600638001	06/11/2013 04:00	Annamaria Stipkovits	1
00394	15a pH by 9045D	SW-846 9045D modified	1	13155039401A	06/04/2013 21:00	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13162162401A	06/11/2013 23:07	Scott W Freisher	1

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Analysis Report

Sample Description: SL-533-SA7-SB-2.5-3.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7079477
LLI Group # 1394291
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/03/2013 09:10 by VC

Submitted: 06/04/2013 09:30
Reported: 06/14/2013 13:47

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

533-- SDG#: PH045-05

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.69	1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.35	1
12969	Anthracene	120-12-7	1.7	U	1.7	0.35	1
12969	Benzo(a)anthracene	56-55-3	1.7	U	1.7	0.69	1
12969	Benzo(a)pyrene	50-32-8	1.7	U	1.7	0.69	1
12969	Benzo(b)fluoranthene	205-99-2	1.7	U	1.7	0.69	1
12969	Benzo(e)pyrene	192-97-2	18	U	18	3.5	1
12969	Benzo(g,h,i)perylene	191-24-2	1.7	U	1.7	0.69	1
12969	Benzo(k)fluoranthene	207-08-9	1.7	U	1.7	0.69	1
12969	Butylbenzylphthalate	85-68-7	19	U	19	6.2	1
12969	Di-n-butylphthalate	84-74-2	19	U	19	6.2	1
12969	Chrysene	218-01-9	1.7	U	1.7	0.35	1
12969	Dibenz(a,h)anthracene	53-70-3	1.7	U	1.7	0.69	1
12969	Diethylphthalate	84-66-2	19	U	19	6.2	1
12969	Dimethylphthalate	131-11-3	19	U	19	6.2	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	19	U	19	6.2	1
12969	Fluoranthene	206-44-0	1.7	U	1.7	0.69	1
12969	Fluorene	86-73-7	1.7	U	1.7	0.69	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.7	U	1.7	0.69	1
12969	1-Methylnaphthalene	90-12-0	1.7	U	1.7	0.69	1
12969	2-Methylnaphthalene	91-57-6	1.7	U	1.7	0.69	1
12969	Naphthalene	91-20-3	1.1	J	1.7	0.69	1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.69	1
12969	Di-n-octylphthalate	117-84-0	19	U	19	6.2	1
12969	Phenanthrene	85-01-8	1.7	U	1.7	0.69	1
12969	Pyrene	129-00-0	1.7	U	1.7	0.69	1
GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	1.1	U	1.1	0.2	26.71
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
10592	Aroclor 5432	63496-31-1	34	U	34	10	1
10592	Aroclor 5442	12642-23-8	34	U	34	10	1
10592	Aroclor 5460	11126-42-4	34	U	34	10	1
10592	PCB-1016	12674-11-2	17	U	17	3.4	1
10592	PCB-1221	11104-28-2	17	U	17	5.2	1
10592	PCB-1232	11141-16-5	17	U	17	4.2	1
10592	PCB-1242	53469-21-9	17	U	17	4.2	1
10592	PCB-1248	12672-29-6	17	U	17	3.4	1
10592	PCB-1254	11097-69-1	17	U	17	4.5	1
10592	PCB-1260	11096-82-5	17	U	17	4.0	1
10592	PCB-1262	37324-23-5	17	U	17	3.4	1
10592	PCB-1268	11100-14-4	17	U	17	3.4	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.2	U	5.2	2.1	1
12952	EFH (C15-C20)	n.a.	5.2	U	5.2	2.1	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-533-SA7-SB-2.5-3.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7079477
LLI Group # 1394291
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/03/2013 09:10 by VC

Submitted: 06/04/2013 09:30
Reported: 06/14/2013 13:47

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

533-- SDG#: PH045-05

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C21-C30)	n.a.	2.6	J	5.2	2.1	1
12952	EFH (C30-C40)	n.a.	5.6	J	10	4.2	1
12952	EFH (C8-C11)	n.a.	5.2	U	5.2	2.1	1
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	12,900		40.7	7.85	1
06944	Antimony	7440-36-0	0.653	J	4.07	0.509	1
06935	Arsenic	7440-38-2	4.76		4.07	0.336	1
06946	Barium	7440-39-3	53.2		1.02	0.0336	1
06947	Beryllium	7440-41-7	0.543	J	1.02	0.0682	1
07914	Boron	7440-42-8	6.47	J	10.2	0.845	1
06949	Cadmium	7440-43-9	0.485	J	1.02	0.0336	1
01650	Calcium	7440-70-2	2,650		20.4	4.09	1
06951	Chromium	7440-47-3	26.7		3.05	0.0896	1
06952	Cobalt	7440-48-4	5.99		1.02	0.0916	1
06953	Copper	7440-50-8	8.68		2.04	0.183	1
01654	Iron	7439-89-6	20,400		40.7	3.87	1
06955	Lead	7439-92-1	4.87		3.05	0.478	1
01656	Lithium	7439-93-2	17.6		4.1	0.56	1
01657	Magnesium	7439-95-4	5,670		10.2	1.76	1
06958	Manganese	7439-96-5	245		1.02	0.0845	1
06960	Molybdenum	7439-98-7	0.383	J	2.04	0.173	1
06961	Nickel	7440-02-0	12.0		2.04	0.112	1
10145	Phosphorus	7723-14-0	385		10.2	0.519	1
01662	Potassium	7440-09-7	2,070		102	13.7	1
01667	Sodium	7440-23-5	110		102	17.0	1
06969	Tin	7440-31-5	2.74	J	10.2	0.224	1
06970	Titanium	7440-32-6	1,270		1.02	0.173	1
06971	Vanadium	7440-62-2	41.8		1.02	0.112	1
06972	Zinc	7440-66-6	56.5		4.07	0.204	1
10146	Zirconium	7440-67-7	2.07	J	5.09	0.845	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.414		0.407	0.102	2
06142	Silver	7440-22-4	0.204	U	0.204	0.0204	2
06144	Strontium	7440-24-6	11.7		0.407	0.0346	2
06145	Thallium	7440-28-0	0.249		0.204	0.0305	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0168	U	0.0168	0.0101	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045D	n.a.	6.49		0.0100	0.0100	1
	The pH was measured in water at 22.3 C.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	3.7		0.10	0.10	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-533-SA7-SB-2.5-3.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7079477
LLI Group # 1394291
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/03/2013 09:10 by VC

Submitted: 06/04/2013 09:30
Reported: 06/14/2013 13:47

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

533-- SDG#: PH045-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Wet Chemistry	**EPA 160.3 modified**		%	%	%	

Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-533-SA7-SB-2.5-3.5 Soil
SSFL Phase 3 Subarea 7

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Suite 400
Fairfax VA 22030

533-- SDG#: PH045-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	1.03 U	1.03	0.0385	1
11031	12378-PeCDD	40321-76-4	0.0985 JBQ	5.16	0.0341	1
11031	123478-HxCDD	39227-28-6	0.0529 J	5.16	0.0210	1
11031	123678-HxCDD	57653-85-7	0.0593 JBQ	5.16	0.0224	1
11031	123789-HxCDD	19408-74-3	0.0908 JBQ	5.16	0.0221	1
11031	1234678-HpCDD	35822-46-9	0.256 JB	5.16	0.0332	1
11031	OCDD	3268-87-9	1.40 JB	10.3	0.0313	1
11031	2378-TCDF	51207-31-9	1.03 U	1.03	0.0315	1
11031	12378-PeCDF	57117-41-6	0.0979 JB	5.16	0.0165	1
11031	23478-PeCDF	57117-31-4	0.101 JBQ	5.16	0.0158	1
11031	123478-HxCDF	70648-26-9	5.16 U	5.16	0.0140	1
11031	123678-HxCDF	57117-44-9	0.0570 JBQ	5.16	0.0131	1
11031	123789-HxCDF	72918-21-9	0.0271 JBQ	5.16	0.0162	1
11031	234678-HxCDF	60851-34-5	0.0598 JBQ	5.16	0.0140	1
11031	1234678-HpCDF	67562-39-4	0.0702 JB	5.16	0.0126	1
11031	1234789-HpCDF	55673-89-7	0.0505 JBQ	5.16	0.0212	1
11031	OCDF	39001-02-0	0.162 JB	10.3	0.0387	1
Toxic Equivalents	**EPA 1613B**		ng/kg	ng/kg	ng/kg	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.0120			1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	68	25 - 164
13C12-12378-PeCDD	98	25 - 181
13C12-123478-HxCDD	82	32 - 141
13C12-123678-HxCDD	83	28 - 130
13C12-123789-HxCDD	80	28 - 130
13C12-1234678-HpCDD	79	23 - 140
13C12-OCDD	89	17 - 157
13C12-2378-TCDF	72	24 - 169
13C12-12378-PeCDF	104	24 - 185
13C12-23478-PeCDF	101	21 - 178
13C12-123478-HxCDF	76	26 - 152
13C12-123678-HxCDF	82	26 - 123
13C12-234678-HxCDF	76	28 - 136
13C12-123789-HxCDF	74	29 - 147
13C12-1234678-HpCDF	96	28 - 143
13C12-1234789-HpCDF	70	26 - 138
13C12-OCDF	68	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-533-SA7-SB-2.5-3.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7079477
LLI Group # 1394291
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/03/2013 09:10 by VC

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Fairfax VA 22030

533-- SDG#: PH045-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-533-SA7-SB-2.5-3.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7079477
LLI Group # 1394291
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/03/2013 09:10 by VC

Submitted: 06/04/2013 09:30
Reported: 06/14/2013 13:47

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

533-- SDG#: PH045-05

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13157SLB026	06/11/2013	06:59	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	13157SLB026	06/06/2013	18:00	Nicholas W Shroyer	1
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	13160A16A	06/09/2013	17:56	Laura M Krieger	26.71
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201315531309	06/04/2013	21:28	Lois E Hiltz	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201315531309	06/04/2013	21:29	Lois E Hiltz	n.a.
10592	19a PCBs and PCTs 8082A	SW-846 8082A	1	131580010A	06/10/2013	08:56	Monica M Souders	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	131580010A	06/08/2013	01:30	Karen L Beyer	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	131580013A	06/10/2013	22:34	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	131580013A	06/09/2013	08:00	Joseph S Feister	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13161007	06/12/2013	08:24	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13161007	06/10/2013	12:00	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010C	1	131600637001	06/11/2013	17:38	John P Hook	1
06944	Antimony	SW-846 6010C	1	131600637001	06/11/2013	17:38	John P Hook	1
06935	Arsenic	SW-846 6010C	1	131600637001	06/11/2013	17:38	John P Hook	1
06946	Barium	SW-846 6010C	1	131600637001	06/11/2013	17:38	John P Hook	1
06947	Beryllium	SW-846 6010C	1	131600637001	06/11/2013	17:38	John P Hook	1
07914	Boron	SW-846 6010C	1	131600637001	06/11/2013	17:38	John P Hook	1
06949	Cadmium	SW-846 6010C	1	131600637001	06/11/2013	17:38	John P Hook	1
01650	Calcium	SW-846 6010C	1	131600637001	06/11/2013	17:38	John P Hook	1
06951	Chromium	SW-846 6010C	1	131600637001	06/11/2013	17:38	John P Hook	1
06952	Cobalt	SW-846 6010C	1	131600637001	06/11/2013	17:38	John P Hook	1
06953	Copper	SW-846 6010C	1	131600637001	06/11/2013	17:38	John P Hook	1
01654	Iron	SW-846 6010C	1	131600637001	06/11/2013	17:38	John P Hook	1
06955	Lead	SW-846 6010C	1	131600637001	06/11/2013	17:38	John P Hook	1
01656	Lithium	SW-846 6010C	1	131600637001	06/11/2013	17:38	John P Hook	1
01657	Magnesium	SW-846 6010C	1	131600637001	06/11/2013	17:38	John P Hook	1
06958	Manganese	SW-846 6010C	1	131600637001	06/11/2013	17:38	John P Hook	1
06960	Molybdenum	SW-846 6010C	1	131600637001	06/11/2013	17:38	John P Hook	1
06961	Nickel	SW-846 6010C	1	131600637001	06/11/2013	17:38	John P Hook	1
10145	Phosphorus	SW-846 6010C	1	131600637001	06/11/2013	17:38	John P Hook	1
01662	Potassium	SW-846 6010C	1	131600637001	06/11/2013	17:38	John P Hook	1
01667	Sodium	SW-846 6010C	1	131600637001	06/11/2013	17:38	John P Hook	1
06969	Tin	SW-846 6010C	1	131600637001	06/11/2013	17:38	John P Hook	1
06970	Titanium	SW-846 6010C	1	131600637001	06/11/2013	17:38	John P Hook	1
06971	Vanadium	SW-846 6010C	1	131600637001	06/11/2013	17:38	John P Hook	1
06972	Zinc	SW-846 6010C	1	131600637001	06/11/2013	17:38	John P Hook	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-533-SA7-SB-2.5-3.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7079477
LLI Group # 1394291
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/03/2013 09:10 by VC

Submitted: 06/04/2013 09:30
Reported: 06/14/2013 13:47

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

533-- SDG#: PH045-05

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10146	Zirconium	SW-846 6010C	1	131600637001	06/11/2013 17:38	John P Hook	1
06141	Selenium	SW-846 6020A	1	131600637001B	06/11/2013 18:27	David K Beck	2
06142	Silver	SW-846 6020A	1	131600637001A	06/11/2013 18:27	David K Beck	2
06144	Strontium	SW-846 6020A	1	131600637001A	06/11/2013 18:27	David K Beck	2
06145	Thallium	SW-846 6020A	1	131600637001A	06/11/2013 18:27	David K Beck	2
00159	3a Mercury 7471A	SW-846 7471B	1	131600638001	06/11/2013 18:50	Katlin N Cataldi	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	131600637001	06/10/2013 23:43	Annamaria Stipkovits	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	131600638001	06/11/2013 04:00	Annamaria Stipkovits	1
00394	15a pH by 9045D	SW-846 9045D modified	1	13155039401A	06/04/2013 21:00	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13162162401A	06/11/2013 23:07	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: TB-060313 Water
SSFL Phase 3 Subarea 7

LLI Sample # WW 7079478
LLI Group # 1394291
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/03/2013 08:00

Submitted: 06/04/2013 09:30
Reported: 06/14/2013 13:47

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

TB63- SDG#: PH045-06TB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC Volatiles	**TPH GRO SW-8015B**		ug/l		ug/l	ug/l	
08229	TPH-GRO S.CA water C5-C12	n.a.	50	U	50	20	1

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08229	11b TPH by EPA 8015B GRO	TPH GRO SW-8015B	1	13162A20A	06/11/2013 13:33	Catherine J Schwarz	1
01146	GC VOA Water Prep	SW-846 5030B	1	13162A20A	06/11/2013 13:33	Catherine J Schwarz	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-525-SA7-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7079479
LLI Group # 1394291
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/03/2013 13:30 by VC

Submitted: 06/04/2013 09:30
Reported: 06/14/2013 13:47

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

52540 SDG#: PH045-07

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.70	1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.35	1
12969	Anthracene	120-12-7	1.7	U	1.7	0.35	1
12969	Benzo(a)anthracene	56-55-3	1.7	U	1.7	0.70	1
12969	Benzo(a)pyrene	50-32-8	1.7	U	1.7	0.70	1
12969	Benzo(b)fluoranthene	205-99-2	1.7	U	1.7	0.70	1
12969	Benzo(e)pyrene	192-97-2	18	U	18	3.5	1
12969	Benzo(g,h,i)perylene	191-24-2	1.7	U	1.7	0.70	1
12969	Benzo(k)fluoranthene	207-08-9	1.7	U	1.7	0.70	1
12969	Butylbenzylphthalate	85-68-7	19	U	19	6.3	1
12969	Di-n-butylphthalate	84-74-2	19	U	19	6.3	1
12969	Chrysene	218-01-9	0.43	J	1.7	0.35	1
12969	Dibenz(a,h)anthracene	53-70-3	1.7	U	1.7	0.70	1
12969	Diethylphthalate	84-66-2	19	U	19	6.3	1
12969	Dimethylphthalate	131-11-3	19	U	19	6.3	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	19	U	19	6.3	1
12969	Fluoranthene	206-44-0	1.7	U	1.7	0.70	1
12969	Fluorene	86-73-7	1.7	U	1.7	0.70	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.7	U	1.7	0.70	1
12969	1-Methylnaphthalene	90-12-0	1.7	U	1.7	0.70	1
12969	2-Methylnaphthalene	91-57-6	1.7	U	1.7	0.70	1
12969	Naphthalene	91-20-3	1.3	J	1.7	0.70	1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.70	1
12969	Di-n-octylphthalate	117-84-0	19	U	19	6.3	1
12969	Phenanthrene	85-01-8	1.7	U	1.7	0.70	1
12969	Pyrene	129-00-0	1.7	U	1.7	0.70	1
GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	1.1	U	1.1	0.2	26.77
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
10592	Aroclor 5432	63496-31-1	34	U	34	10	1
10592	Aroclor 5442	12642-23-8	34	U	34	10	1
10592	Aroclor 5460	11126-42-4	34	U	34	10	1
10592	PCB-1016	12674-11-2	18	U	18	3.4	1
10592	PCB-1221	11104-28-2	18	U	18	5.3	1
10592	PCB-1232	11141-16-5	18	U	18	4.3	1
10592	PCB-1242	53469-21-9	18	U	18	4.3	1
10592	PCB-1248	12672-29-6	18	U	18	3.4	1
10592	PCB-1254	11097-69-1	18	U	18	4.6	1
10592	PCB-1260	11096-82-5	9.5	J	18	4.1	1
10592	PCB-1262	37324-23-5	18	U	18	3.4	1
10592	PCB-1268	11100-14-4	18	U	18	3.4	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.2	U	5.2	2.1	1
12952	EFH (C15-C20)	n.a.	5.2	U	5.2	2.1	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-525-SA7-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7079479
LLI Group # 1394291
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/03/2013 13:30 by VC

Submitted: 06/04/2013 09:30
Reported: 06/14/2013 13:47

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

52540 SDG#: PH045-07

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C21-C30)	n.a.	7.8		5.2	2.1	1
12952	EFH (C30-C40)	n.a.	11		10	4.2	1
12952	EFH (C8-C11)	n.a.	5.2	U	5.2	2.1	1
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	16,600		40.5	7.81	1
06944	Antimony	7440-36-0	0.736	J	4.05	0.506	1
06935	Arsenic	7440-38-2	4.51		4.05	0.334	1
06946	Barium	7440-39-3	44.9		1.01	0.0334	1
06947	Beryllium	7440-41-7	0.740	J	1.01	0.0678	1
07914	Boron	7440-42-8	6.22	J	10.1	0.840	1
06949	Cadmium	7440-43-9	0.381	J	1.01	0.0334	1
01650	Calcium	7440-70-2	1,830		20.2	4.07	1
06951	Chromium	7440-47-3	16.5		3.04	0.0891	1
06952	Cobalt	7440-48-4	3.94		1.01	0.0911	1
06953	Copper	7440-50-8	4.08		2.02	0.182	1
01654	Iron	7439-89-6	16,900		40.5	3.85	1
06955	Lead	7439-92-1	5.46		3.04	0.476	1
01656	Lithium	7439-93-2	19.1		4.0	0.56	1
01657	Magnesium	7439-95-4	3,690		10.1	1.75	1
06958	Manganese	7439-96-5	224		1.01	0.0840	1
06960	Molybdenum	7439-98-7	0.886	J	2.02	0.172	1
06961	Nickel	7440-02-0	6.52		2.02	0.111	1
10145	Phosphorus	7723-14-0	121		10.1	0.516	1
01662	Potassium	7440-09-7	1,140		101	13.7	1
01667	Sodium	7440-23-5	101		101	16.9	1
06969	Tin	7440-31-5	2.86	J	10.1	0.223	1
06970	Titanium	7440-32-6	1,030		1.01	0.172	1
06971	Vanadium	7440-62-2	30.6		1.01	0.111	1
06972	Zinc	7440-66-6	34.9		4.05	0.202	1
10146	Zirconium	7440-67-7	3.13	J	5.06	0.840	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.103	J	0.405	0.101	2
06142	Silver	7440-22-4	0.202	U	0.202	0.0202	2
06144	Strontium	7440-24-6	14.4		0.405	0.0344	2
06145	Thallium	7440-28-0	0.176	J	0.202	0.0304	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0166	J	0.0170	0.0102	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045D	n.a.	7.14		0.0100	0.0100	1
	The pH was measured in water at 22.4 C.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	4.1		0.10	0.10	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-525-SA7-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7079479
LLI Group # 1394291
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/03/2013 13:30 by VC

Submitted: 06/04/2013 09:30
Reported: 06/14/2013 13:47

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

52540 SDG#: PH045-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Wet Chemistry	**EPA 160.3 modified**		%	%	%	

Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-525-SA7-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7079479
LLI Group # 1394291
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/03/2013 13:30 by VC

Submitted: 06/04/2013 09:30
Reported: 06/14/2013 13:47

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

52540 SDG#: PH045-07

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	1.02	U	1.02	0.0303	1
11031	12378-PeCDD	40321-76-4	5.11	U	5.11	0.0457	1
11031	123478-HxCDD	39227-28-6	0.0574	JQ	5.11	0.0297	1
11031	123678-HxCDD	57653-85-7	0.133	JBQ	5.11	0.0312	1
11031	123789-HxCDD	19408-74-3	0.0915	JBQ	5.11	0.0296	1
11031	1234678-HpCDD	35822-46-9	1.75	JB	5.11	0.0429	1
11031	OCDD	3268-87-9	17.0	B	10.2	0.0349	1
11031	2378-TCDF	51207-31-9	1.02	U	1.02	0.0467	1
11031	12378-PeCDF	57117-41-6	0.747	JB	5.11	0.0244	1
11031	23478-PeCDF	57117-31-4	0.0910	JBQ	5.11	0.0233	1
11031	123478-HxCDF	70648-26-9	0.0438	JB	5.11	0.0265	1
11031	123678-HxCDF	57117-44-9	0.0492	JBQ	5.11	0.0244	1
11031	123789-HxCDF	72918-21-9	0.0414	JB	5.11	0.0347	1
11031	234678-HxCDF	60851-34-5	0.0827	JBQ	5.11	0.0273	1
11031	1234678-HpCDF	67562-39-4	0.572	JB	5.11	0.0211	1
11031	1234789-HpCDF	55673-89-7	0.0515	JBQ	5.11	0.0379	1
11031	OCDF	39001-02-0	0.912	JB	10.2	0.0448	1
Toxic Equivalents	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.0596				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	72	25 - 164
13C12-12378-PeCDD	92	25 - 181
13C12-123478-HxCDD	77	32 - 141
13C12-123678-HxCDD	79	28 - 130
13C12-123789-HxCDD	77	28 - 130
13C12-1234678-HpCDD	77	23 - 140
13C12-OCDD	85	17 - 157
13C12-2378-TCDF	75	24 - 169
13C12-12378-PeCDF	102	24 - 185
13C12-23478-PeCDF	96	21 - 178
13C12-123478-HxCDF	73	26 - 152
13C12-123678-HxCDF	81	26 - 123
13C12-234678-HxCDF	73	28 - 136
13C12-123789-HxCDF	66	29 - 147
13C12-1234678-HpCDF	92	28 - 143
13C12-1234789-HpCDF	64	26 - 138
13C12-OCDF	65	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-525-SA7-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7079479
LLI Group # 1394291
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/03/2013 13:30 by VC

Submitted: 06/04/2013 09:30
Reported: 06/14/2013 13:47

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

52540 SDG#: PH045-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-525-SA7-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7079479
LLI Group # 1394291
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/03/2013 13:30 by VC

Submitted: 06/04/2013 09:30
Reported: 06/14/2013 13:47

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

52540 SDG#: PH045-07

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13157SLB026	06/11/2013	07:32	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	13157SLB026	06/06/2013	18:00	Nicholas W Shroyer	1
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	13160A16A	06/09/2013	18:35	Laura M Krieger	26.77
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201315531309	06/04/2013	21:30	Lois E Hiltz	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201315531309	06/04/2013	21:31	Lois E Hiltz	n.a.
10592	19a PCBs and PCTs 8082A	SW-846 8082A	1	131580010A	06/10/2013	09:15	Monica M Souders	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	131580010A	06/08/2013	01:30	Karen L Beyer	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	131580013A	06/10/2013	22:55	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	131580013A	06/09/2013	08:00	Joseph S Feister	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13161007	06/12/2013	09:21	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13161007	06/10/2013	12:00	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010C	1	131600637001	06/11/2013	17:42	John P Hook	1
06944	Antimony	SW-846 6010C	1	131600637001	06/11/2013	17:42	John P Hook	1
06935	Arsenic	SW-846 6010C	1	131600637001	06/11/2013	17:42	John P Hook	1
06946	Barium	SW-846 6010C	1	131600637001	06/11/2013	17:42	John P Hook	1
06947	Beryllium	SW-846 6010C	1	131600637001	06/11/2013	17:42	John P Hook	1
07914	Boron	SW-846 6010C	1	131600637001	06/11/2013	17:42	John P Hook	1
06949	Cadmium	SW-846 6010C	1	131600637001	06/11/2013	17:42	John P Hook	1
01650	Calcium	SW-846 6010C	1	131600637001	06/11/2013	17:42	John P Hook	1
06951	Chromium	SW-846 6010C	1	131600637001	06/11/2013	17:42	John P Hook	1
06952	Cobalt	SW-846 6010C	1	131600637001	06/11/2013	17:42	John P Hook	1
06953	Copper	SW-846 6010C	1	131600637001	06/11/2013	17:42	John P Hook	1
01654	Iron	SW-846 6010C	1	131600637001	06/11/2013	17:42	John P Hook	1
06955	Lead	SW-846 6010C	1	131600637001	06/11/2013	17:42	John P Hook	1
01656	Lithium	SW-846 6010C	1	131600637001	06/11/2013	17:42	John P Hook	1
01657	Magnesium	SW-846 6010C	1	131600637001	06/11/2013	17:42	John P Hook	1
06958	Manganese	SW-846 6010C	1	131600637001	06/11/2013	17:42	John P Hook	1
06960	Molybdenum	SW-846 6010C	1	131600637001	06/11/2013	17:42	John P Hook	1
06961	Nickel	SW-846 6010C	1	131600637001	06/11/2013	17:42	John P Hook	1
10145	Phosphorus	SW-846 6010C	1	131600637001	06/11/2013	17:42	John P Hook	1
01662	Potassium	SW-846 6010C	1	131600637001	06/11/2013	17:42	John P Hook	1
01667	Sodium	SW-846 6010C	1	131600637001	06/11/2013	17:42	John P Hook	1
06969	Tin	SW-846 6010C	1	131600637001	06/11/2013	17:42	John P Hook	1
06970	Titanium	SW-846 6010C	1	131600637001	06/11/2013	17:42	John P Hook	1
06971	Vanadium	SW-846 6010C	1	131600637001	06/11/2013	17:42	John P Hook	1
06972	Zinc	SW-846 6010C	1	131600637001	06/11/2013	17:42	John P Hook	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-525-SA7-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7079479
LLI Group # 1394291
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/03/2013 13:30 by VC

Submitted: 06/04/2013 09:30
Reported: 06/14/2013 13:47

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

52540 SDG#: PH045-07

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10146	Zirconium	SW-846 6010C	1	131600637001	06/11/2013 17:42	John P Hook	1
06141	Selenium	SW-846 6020A	1	131600637001B	06/11/2013 18:30	David K Beck	2
06142	Silver	SW-846 6020A	1	131600637001A	06/11/2013 18:30	David K Beck	2
06144	Strontium	SW-846 6020A	1	131600637001A	06/11/2013 18:30	David K Beck	2
06145	Thallium	SW-846 6020A	1	131600637001A	06/11/2013 18:30	David K Beck	2
00159	3a Mercury 7471A	SW-846 7471B	1	131600638001	06/11/2013 18:52	Katlin N Cataldi	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	131600637001	06/10/2013 23:43	Annamaria Stipkovits	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	131600638001	06/11/2013 04:00	Annamaria Stipkovits	1
00394	15a pH by 9045D	SW-846 9045D modified	1	13155039401A	06/04/2013 21:00	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13162162401A	06/11/2013 23:07	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-525-SA7-SB-9.5-10.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7079480
LLI Group # 1394291
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/03/2013 14:00 by VC

Submitted: 06/04/2013 09:30
Reported: 06/14/2013 13:47

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

52595 SDG#: PH045-08*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.69	1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.35	1
12969	Anthracene	120-12-7	1.7	U	1.7	0.35	1
12969	Benzo(a)anthracene	56-55-3	1.7	U	1.7	0.69	1
12969	Benzo(a)pyrene	50-32-8	1.7	U	1.7	0.69	1
12969	Benzo(b)fluoranthene	205-99-2	1.7	U	1.7	0.69	1
12969	Benzo(e)pyrene	192-97-2	18	U	18	3.5	1
12969	Benzo(g,h,i)perylene	191-24-2	1.7	U	1.7	0.69	1
12969	Benzo(k)fluoranthene	207-08-9	1.7	U	1.7	0.69	1
12969	Butylbenzylphthalate	85-68-7	19	U	19	6.2	1
12969	Di-n-butylphthalate	84-74-2	19	U	19	6.2	1
12969	Chrysene	218-01-9	1.7	U	1.7	0.35	1
12969	Dibenz(a,h)anthracene	53-70-3	1.7	U	1.7	0.69	1
12969	Diethylphthalate	84-66-2	19	U	19	6.2	1
12969	Dimethylphthalate	131-11-3	19	U	19	6.2	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	19	U	19	6.2	1
12969	Fluoranthene	206-44-0	1.7	U	1.7	0.69	1
12969	Fluorene	86-73-7	1.7	U	1.7	0.69	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.7	U	1.7	0.69	1
12969	1-Methylnaphthalene	90-12-0	1.7	U	1.7	0.69	1
12969	2-Methylnaphthalene	91-57-6	1.7	U	1.7	0.69	1
12969	Naphthalene	91-20-3	1.0	J	1.7	0.69	1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.69	1
12969	Di-n-octylphthalate	117-84-0	19	U	19	6.2	1
12969	Phenanthrene	85-01-8	1.7	U	1.7	0.69	1
12969	Pyrene	129-00-0	1.7	U	1.7	0.69	1
GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	1	U	1	0.2	23.23
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
10592	Aroclor 5432	63496-31-1	34	U	34	10	1
10592	Aroclor 5442	12642-23-8	34	U	34	10	1
10592	Aroclor 5460	11126-42-4	34	U	34	10	1
10592	PCB-1016	12674-11-2	18	U	18	3.4	1
10592	PCB-1221	11104-28-2	18	U	18	5.3	1
10592	PCB-1232	11141-16-5	18	U	18	4.2	1
10592	PCB-1242	53469-21-9	18	U	18	4.2	1
10592	PCB-1248	12672-29-6	18	U	18	3.4	1
10592	PCB-1254	11097-69-1	18	U	18	4.5	1
10592	PCB-1260	11096-82-5	18	U	18	4.0	1
10592	PCB-1262	37324-23-5	18	U	18	3.4	1
10592	PCB-1268	11100-14-4	18	U	18	3.4	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.2	U	5.2	2.1	1
12952	EFH (C15-C20)	n.a.	5.2	U	5.2	2.1	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-525-SA7-SB-9.5-10.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7079480
LLI Group # 1394291
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/03/2013 14:00 by VC

Submitted: 06/04/2013 09:30
Reported: 06/14/2013 13:47

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

52595 SDG#: PH045-08*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C21-C30)	n.a.	5.2	U	5.2	2.1	1
12952	EFH (C30-C40)	n.a.	5.8	J	10	4.1	1
12952	EFH (C8-C11)	n.a.	5.2	U	5.2	2.1	1
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	19,500		40.3	7.77	1
06944	Antimony	7440-36-0	0.721	J	4.03	0.504	1
06935	Arsenic	7440-38-2	6.03		4.03	0.333	1
06946	Barium	7440-39-3	44.8		1.01	0.0333	1
06947	Beryllium	7440-41-7	0.630	J	1.01	0.0675	1
07914	Boron	7440-42-8	6.43	J	10.1	0.837	1
06949	Cadmium	7440-43-9	0.349	J	1.01	0.0333	1
01650	Calcium	7440-70-2	2,080		20.2	4.05	1
06951	Chromium	7440-47-3	17.3		3.02	0.0887	1
06952	Cobalt	7440-48-4	4.04		1.01	0.0907	1
06953	Copper	7440-50-8	4.70		2.02	0.181	1
01654	Iron	7439-89-6	17,700		40.3	3.83	1
06955	Lead	7439-92-1	4.67		3.02	0.474	1
01656	Lithium	7439-93-2	18.5		4.0	0.55	1
01657	Magnesium	7439-95-4	3,490		10.1	1.74	1
06958	Manganese	7439-96-5	259		1.01	0.0837	1
06960	Molybdenum	7439-98-7	0.860	J	2.02	0.171	1
06961	Nickel	7440-02-0	6.73		2.02	0.111	1
10145	Phosphorus	7723-14-0	191		10.1	0.514	1
01662	Potassium	7440-09-7	1,300		101	13.6	1
01667	Sodium	7440-23-5	111		101	16.8	1
06969	Tin	7440-31-5	2.98	J	10.1	0.222	1
06970	Titanium	7440-32-6	1,210		1.01	0.171	1
06971	Vanadium	7440-62-2	31.0		1.01	0.111	1
06972	Zinc	7440-66-6	36.8		4.03	0.202	1
10146	Zirconium	7440-67-7	3.20	J	5.04	0.837	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.403	U	0.403	0.101	2
06142	Silver	7440-22-4	0.0319	J	0.202	0.0202	2
06144	Strontium	7440-24-6	12.7		0.403	0.0343	2
06145	Thallium	7440-28-0	0.185	J	0.202	0.0302	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0110	J	0.0169	0.0101	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045D The pH was measured in water at 22.5 C.	n.a.	7.11		0.0100	0.0100	1
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	3.7		0.10	0.10	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-525-SA7-SB-9.5-10.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7079480
LLI Group # 1394291
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/03/2013 14:00 by VC

Submitted: 06/04/2013 09:30
Reported: 06/14/2013 13:47

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

52595 SDG#: PH045-08*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Wet Chemistry	**EPA 160.3 modified**		%	%	%	

Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-525-SA7-SB-9.5-10.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7079480
LLI Group # 1394291
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/03/2013 14:00 by VC

Submitted: 06/04/2013 09:30
Reported: 06/14/2013 13:47

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

52595 SDG#: PH045-08*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	1.03	U	1.03	0.0334	1
11031	12378-PeCDD	40321-76-4	5.13	U	5.13	0.0341	1
11031	123478-HxCDD	39227-28-6	5.13	U	5.13	0.0226	1
11031	123678-HxCDD	57653-85-7	0.0414	JB	5.13	0.0251	1
11031	123789-HxCDD	19408-74-3	5.13	U	5.13	0.0235	1
11031	1234678-HpCDD	35822-46-9	0.237	JB	5.13	0.0284	1
11031	OCDD	3268-87-9	2.30	JB	10.3	0.0343	1
11031	2378-TCDF	51207-31-9	1.03	U	1.03	0.0282	1
11031	12378-PeCDF	57117-41-6	0.0821	JBQ	5.13	0.0173	1
11031	23478-PeCDF	57117-31-4	0.0190	JBQ	5.13	0.0178	1
11031	123478-HxCDF	70648-26-9	0.0282	JBQ	5.13	0.0123	1
11031	123678-HxCDF	57117-44-9	0.0149	JB	5.13	0.0115	1
11031	123789-HxCDF	72918-21-9	5.13	U	5.13	0.0164	1
11031	234678-HxCDF	60851-34-5	5.13	U	5.13	0.0128	1
11031	1234678-HpCDF	67562-39-4	0.0917	JBQ	5.13	0.0108	1
11031	1234789-HpCDF	55673-89-7	0.0228	JBQ	5.13	0.0212	1
11031	OCDF	39001-02-0	0.115	JB	10.3	0.0361	1
Toxic Equivalents	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.00872				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	73	25 - 164
13C12-12378-PeCDD	96	25 - 181
13C12-123478-HxCDD	88	32 - 141
13C12-123678-HxCDD	87	28 - 130
13C12-123789-HxCDD	85	28 - 130
13C12-1234678-HpCDD	87	23 - 140
13C12-OCDD	93	17 - 157
13C12-2378-TCDF	77	24 - 169
13C12-12378-PeCDF	107	24 - 185
13C12-23478-PeCDF	99	21 - 178
13C12-123478-HxCDF	81	26 - 152
13C12-123678-HxCDF	89	26 - 123
13C12-234678-HxCDF	81	28 - 136
13C12-123789-HxCDF	71	29 - 147
13C12-1234678-HpCDF	106	28 - 143
13C12-1234789-HpCDF	68	26 - 138
13C12-OCDF	63	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration

*=This limit was used in the evaluation of the final result

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Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: SL-525-SA7-SB-9.5-10.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7079480
LLI Group # 1394291
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/03/2013 14:00 by VC

Submitted: 06/04/2013 09:30
Reported: 06/14/2013 13:47

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

52595 SDG#: PH045-08*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

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2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Analysis Report

Sample Description: SL-525-SA7-SB-9.5-10.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7079480
LLI Group # 1394291
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/03/2013 14:00 by VC

Submitted: 06/04/2013 09:30
Reported: 06/14/2013 13:47

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

52595 SDG#: PH045-08*

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

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12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13157SLB026	06/11/2013	08:06	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	13157SLB026	06/06/2013	18:00	Nicholas W Shroyer	1
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	13160A16A	06/09/2013	19:13	Laura M Krieger	23.23
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201315531309	06/04/2013	21:32	Lois E Hiltz	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201315531309	06/04/2013	21:33	Lois E Hiltz	n.a.
10592	19a PCBs and PCTs 8082A	SW-846 8082A	1	131580010A	06/10/2013	09:33	Monica M Souders	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	131580010A	06/08/2013	01:30	Karen L Beyer	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	131580013A	06/10/2013	23:16	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	131580013A	06/09/2013	08:00	Joseph S Feister	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13161007	06/12/2013	10:17	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13161007	06/10/2013	12:00	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010C	1	131600637001	06/11/2013	17:46	John P Hook	1
06944	Antimony	SW-846 6010C	1	131600637001	06/11/2013	17:46	John P Hook	1
06935	Arsenic	SW-846 6010C	1	131600637001	06/11/2013	17:46	John P Hook	1
06946	Barium	SW-846 6010C	1	131600637001	06/11/2013	17:46	John P Hook	1
06947	Beryllium	SW-846 6010C	1	131600637001	06/11/2013	17:46	John P Hook	1
07914	Boron	SW-846 6010C	1	131600637001	06/11/2013	17:46	John P Hook	1
06949	Cadmium	SW-846 6010C	1	131600637001	06/11/2013	17:46	John P Hook	1
01650	Calcium	SW-846 6010C	1	131600637001	06/11/2013	17:46	John P Hook	1
06951	Chromium	SW-846 6010C	1	131600637001	06/11/2013	17:46	John P Hook	1
06952	Cobalt	SW-846 6010C	1	131600637001	06/11/2013	17:46	John P Hook	1
06953	Copper	SW-846 6010C	1	131600637001	06/11/2013	17:46	John P Hook	1
01654	Iron	SW-846 6010C	1	131600637001	06/11/2013	17:46	John P Hook	1
06955	Lead	SW-846 6010C	1	131600637001	06/11/2013	17:46	John P Hook	1
01656	Lithium	SW-846 6010C	1	131600637001	06/11/2013	17:46	John P Hook	1
01657	Magnesium	SW-846 6010C	1	131600637001	06/11/2013	17:46	John P Hook	1
06958	Manganese	SW-846 6010C	1	131600637001	06/11/2013	17:46	John P Hook	1
06960	Molybdenum	SW-846 6010C	1	131600637001	06/11/2013	17:46	John P Hook	1
06961	Nickel	SW-846 6010C	1	131600637001	06/11/2013	17:46	John P Hook	1
10145	Phosphorus	SW-846 6010C	1	131600637001	06/11/2013	17:46	John P Hook	1
01662	Potassium	SW-846 6010C	1	131600637001	06/11/2013	17:46	John P Hook	1
01667	Sodium	SW-846 6010C	1	131600637001	06/11/2013	17:46	John P Hook	1
06969	Tin	SW-846 6010C	1	131600637001	06/11/2013	17:46	John P Hook	1
06970	Titanium	SW-846 6010C	1	131600637001	06/11/2013	17:46	John P Hook	1
06971	Vanadium	SW-846 6010C	1	131600637001	06/11/2013	17:46	John P Hook	1
06972	Zinc	SW-846 6010C	1	131600637001	06/11/2013	17:46	John P Hook	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-525-SA7-SB-9.5-10.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7079480
LLI Group # 1394291
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/03/2013 14:00 by VC

Submitted: 06/04/2013 09:30
Reported: 06/14/2013 13:47

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

52595 SDG#: PH045-08*

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10146	Zirconium	SW-846 6010C	1	131600637001	06/11/2013 17:46	John P Hook	1
06141	Selenium	SW-846 6020A	1	131600637001B	06/11/2013 18:32	David K Beck	2
06142	Silver	SW-846 6020A	1	131600637001A	06/11/2013 18:32	David K Beck	2
06144	Strontium	SW-846 6020A	1	131600637001A	06/11/2013 18:32	David K Beck	2
06145	Thallium	SW-846 6020A	1	131600637001A	06/11/2013 18:32	David K Beck	2
00159	3a Mercury 7471A	SW-846 7471B	1	131600638001	06/11/2013 18:54	Katlin N Cataldi	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	131600637001	06/10/2013 23:43	Annamaria Stipkovits	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	131600638001	06/11/2013 04:00	Annamaria Stipkovits	1
00394	15a pH by 9045D	SW-846 9045D modified	1	13155039401A	06/04/2013 21:00	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13162162401A	06/11/2013 23:07	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1394291
Reported: 06/14/13 at 01:47 PM

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 13156WAL026	Sample number(s): 7079473-7079474									
Acenaphthene	0.050	U	0.050	0.010	ug/l	93	90	65-124	3	30
Acenaphthylene	0.050	U	0.050	0.010	ug/l	93	91	72-113	2	30
Anthracene	0.050	U	0.050	0.010	ug/l	95	93	70-117	3	30
Benzo(a)anthracene	0.050	U	0.050	0.010	ug/l	99	95	75-115	4	30
Benzo(a)pyrene	0.050	U	0.050	0.010	ug/l	96	91	72-120	6	30
Benzo(b)fluoranthene	0.050	U	0.050	0.010	ug/l	106	101	74-130	5	30
Benzo(e)pyrene	0.050	U	0.050	0.010	ug/l	92	89	70-130	3	30
Benzo(g,h,i)perylene	0.050	U	0.050	0.010	ug/l	99	97	63-121	2	30
Benzo(k)fluoranthene	0.050	U	0.050	0.010	ug/l	99	96	74-118	4	30
Butylbenzylphthalate	1.0	U	1.0	0.050	ug/l	62	57	40-138	8	30
Di-n-butylphthalate	0.069	J	1.0	0.050	ug/l	90	87	70-145	3	30
Chrysene	0.050	U	0.050	0.010	ug/l	95	93	75-112	3	30
Dibenz(a,h)anthracene	0.050	U	0.050	0.010	ug/l	98	95	66-122	3	30
Diethylphthalate	0.092	J	1.0	0.050	ug/l	88	86	74-129	2	30
Dimethylphthalate	1.0	U	1.0	0.050	ug/l	60	55	40-119	8	30
Bis(2-Ethylhexyl)phthalate	0.88	J	1.0	0.050	ug/l	89	119	70-143	30	30
Fluoranthene	0.050	U	0.050	0.010	ug/l	95	92	73-116	3	30
Fluorene	0.050	U	0.050	0.010	ug/l	94	91	74-115	3	30
Indeno(1,2,3-cd)pyrene	0.050	U	0.050	0.010	ug/l	95	93	66-122	3	30
1-Methylnaphthalene	0.050	U	0.050	0.010	ug/l	104	102	71-120	2	30
2-Methylnaphthalene	0.050	U	0.050	0.010	ug/l	107	105	74-119	2	30
Naphthalene	0.050	U	0.050	0.030	ug/l	92	91	67-118	2	30
N-Nitrosodimethylamine	0.050	U	0.050	0.010	ug/l	77	70	36-120	9	30
Di-n-octylphthalate	1.0	U	1.0	0.050	ug/l	80	73	57-145	9	30
Phenanthrene	0.050	U	0.050	0.030	ug/l	90	88	72-109	2	30
Pyrene	0.050	U	0.050	0.010	ug/l	98	95	71-116	3	30
Batch number: 13157SLB026	Sample number(s): 7079475-7079477,7079479-7079480									
Acenaphthene	1.7	U	1.7	0.67	ug/kg	98		69-114		
Acenaphthylene	1.7	U	1.7	0.33	ug/kg	95		71-113		
Anthracene	1.7	U	1.7	0.33	ug/kg	98		75-116		
Benzo(a)anthracene	1.7	U	1.7	0.67	ug/kg	107		76-115		
Benzo(a)pyrene	1.7	U	1.7	0.67	ug/kg	106		76-117		
Benzo(b)fluoranthene	1.7	U	1.7	0.67	ug/kg	103		77-129		
Benzo(e)pyrene	17	U	17.	3.3	ug/kg	99		70-130		
Benzo(g,h,i)perylene	1.7	U	1.7	0.67	ug/kg	103		64-120		
Benzo(k)fluoranthene	1.7	U	1.7	0.67	ug/kg	112		71-120		
Butylbenzylphthalate	18	U	18.	6.0	ug/kg	98		65-131		
Di-n-butylphthalate	18	U	18.	6.0	ug/kg	96		67-140		
Chrysene	1.7	U	1.7	0.33	ug/kg	104		78-111		
Dibenz(a,h)anthracene	1.7	U	1.7	0.67	ug/kg	104		65-124		
Diethylphthalate	18	U	18.	6.0	ug/kg	102		68-125		
Dimethylphthalate	18	U	18.	6.0	ug/kg	108		70-130		

*- Outside of specification
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(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1394291
Reported: 06/14/13 at 01:47 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Bis(2-Ethylhexyl)phthalate	18	U	18.	6.0	ug/kg	102		67-143		
Fluoranthene	1.7	U	1.7	0.67	ug/kg	104		68-119		
Fluorene	1.7	U	1.7	0.67	ug/kg	102		75-123		
Indeno(1,2,3-cd)pyrene	1.7	U	1.7	0.67	ug/kg	104		66-122		
1-Methylnaphthalene	1.7	U	1.7	0.67	ug/kg	88		74-113		
2-Methylnaphthalene	1.7	U	1.7	0.67	ug/kg	86		78-121		
Naphthalene	1.7	U	1.7	0.67	ug/kg	94		64-120		
N-Nitrosodimethylamine	1.7	U	1.7	0.67	ug/kg	110		30-125		
Di-n-octylphthalate	18	U	18.	6.0	ug/kg	99		57-133		
Phenanthrene	1.7	U	1.7	0.67	ug/kg	93		72-110		
Pyrene	1.7	U	1.7	0.67	ug/kg	97		71-120		
Batch number: 13160A16A	Sample number(s): 7079475-7079477,7079479-7079480									
11a TPH by EPA 8015B GRO	1.0	U	1.0	0.2	mg/kg	91		67-119		
Batch number: 13162A20A	Sample number(s): 7079473-7079474,7079478									
TPH-GRO S.CA water C5-C12	50	U	50.	20	ug/l	107	108	75-135	1	30
Batch number: 131570010A	Sample number(s): 7079473-7079474									
Aldrin	0.0080	U	0.0080	0.0016	ug/l	76	80	55-126	4	30
Alpha BHC	0.0080	U	0.0080	0.0024	ug/l	91	90	63-132	1	30
Beta BHC	0.0080	U	0.0080	0.0027	ug/l	85	86	63-132	1	30
Gamma BHC - Lindane	0.0080	U	0.0080	0.0016	ug/l	91	94	68-128	3	30
Chlordane	0.40	U	0.40	0.13	ug/l					
p,p-DDD	0.016	U	0.016	0.0040	ug/l	87	88	62-143	1	30
p,p-DDE	0.016	U	0.016	0.0040	ug/l	87	88	56-137	1	30
p,p-DDT	0.016	U	0.016	0.0042	ug/l	100	85	45-134	17	30
Delta BHC	0.0080	U	0.0080	0.0027	ug/l	88	91	63-131	3	30
Dieldrin	0.016	U	0.016	0.0042	ug/l	91	92	65-135	2	30
Endosulfan I	0.0080	U	0.0080	0.0034	ug/l	84	85	48-124	1	30
Endosulfan II	0.016	U	0.016	0.012	ug/l	83	84	53-123	1	30
Endosulfan Sulfate	0.016	U	0.016	0.0046	ug/l	83	86	60-129	3	30
Endrin	0.016	U	0.016	0.0065	ug/l	92	92	43-139	0	30
Endrin Aldehyde	0.080	U	0.080	0.016	ug/l	85	89	55-123	4	20
Endrin Ketone	0.016	U	0.016	0.0040	ug/l	81	82	51-138	1	30
Heptachlor	0.0080	U	0.0080	0.0016	ug/l	86	86	57-126	0	30
Heptachlor Epoxide	0.0080	U	0.0080	0.0018	ug/l	88	90	65-128	2	30
Methoxychlor	0.080	U	0.080	0.024	ug/l	113	81	46-134	32*	30
Mirex	0.20	U	0.20	0.068	ug/l					
Toxaphene	2.4	U	2.4	0.80	ug/l					
Batch number: 131570011A	Sample number(s): 7079473-7079474									
Aroclor 5432	0.40	U	0.40	0.080	ug/l					
Aroclor 5442	0.40	U	0.40	0.080	ug/l					
Aroclor 5460	0.40	U	0.40	0.088	ug/l					
PCB-1016	0.40	U	0.40	0.080	ug/l	98	83	69-120	17	30
PCB-1221	0.40	U	0.40	0.080	ug/l					
PCB-1232	0.40	U	0.40	0.16	ug/l					
PCB-1242	0.40	U	0.40	0.080	ug/l					
PCB-1248	0.40	U	0.40	0.080	ug/l					
PCB-1254	0.40	U	0.40	0.080	ug/l					
PCB-1260	0.40	U	0.40	0.12	ug/l	100	80	69-128	22	30
PCB-1262	0.40	U	0.40	0.16	ug/l					
PCB-1268	0.40	U	0.40	0.13	ug/l					
Batch number: 131580010A	Sample number(s): 7079475-7079477,7079479-7079480									

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1394291
Reported: 06/14/13 at 01:47 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Aroclor 5432	33	U	33.	10	ug/kg					
Aroclor 5442	33	U	33.	10	ug/kg	75	78	36-106	4	30
Aroclor 5460	33	U	33.	10	ug/kg					
PCB-1016	17	U	17.	3.3	ug/kg	96		80-120		
PCB-1221	17	U	17.	5.1	ug/kg					
PCB-1232	17	U	17.	4.1	ug/kg					
PCB-1242	17	U	17.	4.1	ug/kg					
PCB-1248	17	U	17.	3.3	ug/kg					
PCB-1254	17	U	17.	4.4	ug/kg					
PCB-1260	17	U	17.	3.9	ug/kg	96		72-120		
PCB-1262	17	U	17.	3.3	ug/kg					
PCB-1268	17	U	17.	3.3	ug/kg					
Batch number: 131570013A	Sample number(s): 7079473-7079474									
EFH (C12-C14)	0.10	U	0.10	0.050	mg/l	90	90	70-130	0	30
EFH (C15-C20)	0.10	U	0.10	0.050	mg/l	111	100	70-130	10	30
EFH (C21-C30)	0.10	U	0.10	0.050	mg/l	101	100	70-130	1	30
EFH (C30 - C40)	0.50	U	0.50	0.10	mg/l	97	88	70-130	10	30
EFH (C8-C11)	0.10	U	0.10	0.050	mg/l	68*	65*	70-130	4	30
Batch number: 131580013A	Sample number(s): 7079475-7079477,7079479-7079480									
EFH (C12-C14)	5.0	U	5.0	2.0	mg/kg	97		70-123		
EFH (C15-C20)	5.0	U	5.0	2.0	mg/kg	103		75-128		
EFH (C21-C30)	5.0	U	5.0	2.0	mg/kg	101		64-134		
EFH (C30-C40)	10	U	10.	4.0	mg/kg	93		65-128		
EFH (C8-C11)	5.0	U	5.0	2.0	mg/kg	76		49-107		
Batch number: 131560635001	Sample number(s): 7079473-7079474									
Aluminum	0.400	U	0.400	0.0743	mg/l	101	100	90-112	1	20
Antimony	0.0037	J	0.0400	0.0035	mg/l	101	103	88-111	2	20
Arsenic	0.0400	U	0.0400	0.0068	mg/l	98	97	90-113	1	20
Barium	0.0100	U	0.0100	0.00033	mg/l	101	101	90-110	0	20
Beryllium	0.0100	U	0.0100	0.00067	mg/l	98	99	88-110	1	20
Boron	0.100	U	0.100	0.0083	mg/l	96	97	89-110	0	20
Cadmium	0.0100	U	0.0100	0.00036	mg/l	100	100	90-112	1	20
Calcium	0.0711	J	0.400	0.0640	mg/l	102	102	90-110	0	20
Chromium	0.0300	U	0.0300	0.0011	mg/l	99	100	90-110	1	20
Cobalt	0.0100	U	0.0100	0.00066	mg/l	101	102	90-110	1	20
Copper	0.0200	U	0.0200	0.0021	mg/l	96	97	90-112	2	20
Iron	0.400	U	0.400	0.0333	mg/l	97	98	90-112	0	20
Lead	0.0300	U	0.0300	0.0051	mg/l	104	105	88-110	1	20
Lithium	0.0400	U	0.0400	0.0060	mg/l	101	101	90-110	0	20
Magnesium	0.200	U	0.200	0.0606	mg/l	99	100	90-110	1	20
Manganese	0.0100	U	0.0100	0.00083	mg/l	100	100	90-110	0	20
Molybdenum	0.0200	U	0.0200	0.0029	mg/l	101	102	90-110	1	20
Nickel	0.0200	U	0.0200	0.0011	mg/l	102	103	90-111	1	20
Phosphorus	0.200	U	0.200	0.0052	mg/l	99	100	90-110	1	20
Potassium	1.00	U	1.00	0.145	mg/l	99	99	85-115	0	20
Sodium	2.00	U	2.00	0.167	mg/l	98	98	87-114	1	20
Tin	0.0400	U	0.0400	0.0022	mg/l	98	99	90-110	1	20
Titanium	0.0200	U	0.0200	0.0017	mg/l	101	102	90-113	1	20
Vanadium	0.0100	U	0.0100	0.0013	mg/l	101	101	90-110	0	20
Zinc	0.0400	U	0.0400	0.0020	mg/l	100	101	90-110	1	20
Zirconium	0.100	U	0.100	0.0092	mg/l	100	101	90-110	0	20
Batch number: 131560639001A	Sample number(s): 7079473-7079474									

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1394291
Reported: 06/14/13 at 01:47 PM

Analysis Name	Blank Result	Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Silver	0.0010 U	0.0010	0.00010	mg/l	101	99	90-115	1	20
Strontium	0.0020 U	0.0020	0.00022	mg/l	101	99	80-120	2	20
Thallium	0.0010 U	0.0010	0.00015	mg/l	101	102	80-120	1	20
Batch number: 131560639001B	Sample number(s): 7079473-7079474								
Selenium	0.0040 U	0.0040	0.00050	mg/l	102	102	80-120	0	20
Batch number: 131575713007	Sample number(s): 7079473-7079474								
3b Mercury 7470A	0.00020 U	0.00020	0.00007 0	mg/l	98	95	90-115	3	20
Batch number: 131600637001	Sample number(s): 7079475-7079477,7079479-7079480								
Aluminum	40.0 U	40.0	7.71	mg/kg	100		80-120		
Antimony	4.00 U	4.00	0.500	mg/kg	104		80-120		
Arsenic	4.00 U	4.00	0.330	mg/kg	103		80-120		
Barium	1.00 U	1.00	0.0330	mg/kg	104		80-120		
Beryllium	1.00 U	1.00	0.0670	mg/kg	103		80-120		
Boron	10.0 U	10.0	0.830	mg/kg	99		80-120		
Cadmium	1.00 U	1.00	0.0330	mg/kg	104		80-120		
Calcium	11.1 J	20.0	4.02	mg/kg	102		80-120		
Chromium	3.00 U	3.00	0.0880	mg/kg	101		80-120		
Cobalt	1.00 U	1.00	0.0900	mg/kg	105		80-120		
Copper	2.00 U	2.00	0.180	mg/kg	109		80-120		
Iron	40.0 U	40.0	3.80	mg/kg	103		80-120		
Lead	3.00 U	3.00	0.470	mg/kg	106		80-120		
Lithium	4.0 U	4.0	0.55	mg/kg	103		80-120		
Magnesium	10.0 U	10.0	1.73	mg/kg	100		80-120		
Manganese	1.00 U	1.00	0.0830	mg/kg	104		80-120		
Molybdenum	2.00 U	2.00	0.170	mg/kg	103		80-120		
Nickel	2.00 U	2.00	0.110	mg/kg	106		80-120		
Phosphorus	1.14 J	10.0	0.510	mg/kg	106		80-120		
Potassium	100 U	100.	13.5	mg/kg	98		80-120		
Sodium	100 U	100.	16.7	mg/kg	100		80-120		
Tin	1.50 J	10.0	0.220	mg/kg	101		80-120		
Titanium	1.00 U	1.00	0.170	mg/kg	103		80-120		
Vanadium	1.00 U	1.00	0.110	mg/kg	99		80-120		
Zinc	4.00 U	4.00	0.200	mg/kg	104		80-120		
Zirconium	5.00 U	5.00	0.830	mg/kg	103		80-120		
Batch number: 131600637001A	Sample number(s): 7079475-7079477,7079479-7079480								
Silver	0.200 U	0.200	0.0200	mg/kg	103		80-120		
Strontium	0.0780 J	0.400	0.0340	mg/kg	101		80-120		
Thallium	0.200 U	0.200	0.0300	mg/kg	104		80-120		
Batch number: 131600637001B	Sample number(s): 7079475-7079477,7079479-7079480								
Selenium	0.400 U	0.400	0.100	mg/kg	100		80-120		
Batch number: 131600638001	Sample number(s): 7079475-7079477,7079479-7079480								
3a Mercury 7471A	0.0167 U	0.0167	0.0100	mg/kg	100		85-120		
Batch number: 13155039401A	Sample number(s): 7079475-7079477,7079479-7079480								
15a pH by 9045D					100		95-105		
Batch number: 13155121521A	Sample number(s): 7079473-7079474								

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1394291
Reported: 06/14/13 at 01:47 PM

Analysis Name	Blank Result	Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
28b. pH (9040B and 9040C)					100	100	99-103	0	3
Batch number: 13162162401A	Sample number(s): 7079475-7079477,7079479-7079480								
14a Moisture Content by 160.3					100		80-120		

Analysis Name	Blank Result	Blank MRL**	Blank EDL	Report Units	OPR %REC	OPRD %REC	OPR/OPRD Limits	RPD	RPD Max
Batch number: 13155003	Sample number(s): 7079473-7079474								
2378-TCDD	0.133 J	2.00	0.127	pg/l	92		60-150		
12378-PeCDD	0.271 J	10.0	0.108	pg/l	95		60-150		
123478-HxCDD	0.226 J	10.0	0.0965	pg/l	101		60-150		
123678-HxCDD	0.224 J	10.0	0.102	pg/l	98		60-150		
123789-HxCDD	0.103 J	10.0	0.0986	pg/l	99		60-150		
1234678-HpCDD	0.337 J	10.0	0.110	pg/l	97		60-150		
OCDD	0.859 J	20.0	0.0862	pg/l	98		60-150		
2378-TCDF	2.00 U	2.00	0.0983	pg/l	94		60-150		
12378-PeCDF	0.516 J	10.0	0.0791	pg/l	99		60-150		
23478-PeCDF	0.268 J	10.0	0.0743	pg/l	99		60-150		
123478-HxCDF	0.339 J	10.0	0.0697	pg/l	103		60-150		
123678-HxCDF	0.205 J	10.0	0.0686	pg/l	100		60-150		
123789-HxCDF	0.297 J	10.0	0.0716	pg/l	100		60-150		
234678-HxCDF	0.203 J	10.0	0.0669	pg/l	101		60-150		
1234678-HpCDF	0.359 J	10.0	0.0442	pg/l	102		60-150		
1234789-HpCDF	0.195 J	10.0	0.0533	pg/l	100		60-150		
OCDF	0.843 J	20.0	0.132	pg/l	96		60-150		
Batch number: 13161007	Sample number(s): 7079475-7079477,7079479-7079480								
2378-TCDD	1.00 U	1.00	0.0354	ng/kg	103		67-158		
12378-PeCDD	0.0895 J	5.00	0.0390	ng/kg	104		70-142		
123478-HxCDD	5.00 U	5.00	0.0207	ng/kg	95		70-164		
123678-HxCDD	0.0393 J	5.00	0.0216	ng/kg	99		76-134		
123789-HxCDD	0.0384 J	5.00	0.0223	ng/kg	98		64-162		
1234678-HpCDD	0.109 J	5.00	0.0275	ng/kg	96		70-140		
OCDD	0.225 J	10.0	0.0393	ng/kg	91		78-144		
2378-TCDF	1.00 U	1.00	0.0345	ng/kg	108		75-158		
12378-PeCDF	0.0769 J	5.00	0.0180	ng/kg	97		80-134		
23478-PeCDF	0.0332 J	5.00	0.0166	ng/kg	99		68-160		
123478-HxCDF	0.0410 J	5.00	0.0129	ng/kg	89		72-134		
123678-HxCDF	0.0219 J	5.00	0.0126	ng/kg	91		84-130		
123789-HxCDF	0.0272 J	5.00	0.0152	ng/kg	91		78-130		
234678-HxCDF	0.0370 J	5.00	0.0128	ng/kg	92		70-156		
1234678-HpCDF	0.0530 J	5.00	0.00969	ng/kg	90		82-122		
1234789-HpCDF	0.0357 J	5.00	0.0155	ng/kg	94		78-138		
OCDF	0.145 J	10.0	0.0406	ng/kg	90		63-170		
Batch number: 13155003	Sample number(s): 7079473-7079474								
TEQ WHO 2005 - EDLx0.0	0.0300			pg/l					
Batch number: 13161007	Sample number(s): 7079475-7079477,7079479-7079480								
TEQ WHO 2005 - EDLx0.0	0.00737			ng/kg					

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1394291
Reported: 06/14/13 at 01:47 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 13157SLB026	Sample number(s): 7079475-7079477,7079479-7079480 UNSPK: P078552								
Acenaphthene	86	91	48-127	6	30				
Acenaphthylene	84	91	49-121	8	30				
Anthracene	76	83	52-126	8	30				
Benzo(a)anthracene	97	100	32-135	3	30				
Benzo(a)pyrene	92	93	36-138	2	30				
Benzo(b)fluoranthene	98	106	26-142	7	30				
Benzo(e)pyrene	90	93	70-130	3	30				
Benzo(g,h,i)perylene	77	79	33-141	3	30				
Benzo(k)fluoranthene	93	94	47-129	2	30				
Butylbenzylphthalate	84	84	59-153	1	30				
Di-n-butylphthalate	91	83	62-154	9	30				
Chrysene	93	97	29-148	5	30				
Dibenz(a,h)anthracene	86	90	34-125	5	30				
Diethylphthalate	94	102	76-127	8	30				
Dimethylphthalate	98	103	62-136	4	30				
Bis(2-Ethylhexyl)phthalate	90	94	39-167	5	30				
Fluoranthene	93	97	47-135	5	30				
Fluorene	91	98	50-129	7	30				
Indeno(1,2,3-cd)pyrene	83	85	17-136	3	30				
1-Methylnaphthalene	87	90	50-131	3	30				
2-Methylnaphthalene	84	86	28-144	2	30				
Naphthalene	90	93	31-148	3	30				
N-Nitrosodimethylamine	88	94	48-113	6	30				
Di-n-octylphthalate	80	86	52-162	8	30				
Phenanthrene	101	101	29-142	1	30				
Pyrene	77	80	26-143	4	30				
Batch number: 13160A16A	Sample number(s): 7079475-7079477,7079479-7079480 UNSPK: P081064								
11a TPH by EPA 8015B GRO	103	101	39-118	7	30				
Batch number: 131580010A	Sample number(s): 7079475-7079477,7079479-7079480 UNSPK: P081058								
PCB-1016	81	92	16-146	12	50				
PCB-1260	68	85	40-134	21	50				
Batch number: 131580013A	Sample number(s): 7079475-7079477,7079479-7079480 UNSPK: P081058								
EFH (C12-C14)	91	97	49-123	7	20				
EFH (C15-C20)	394*	444*	49-123	12	20				
EFH (C21-C30)	1639 (2)	2238 (2)	49-123	14	20				
EFH (C30-C40)	2997 (2)	5212 (2)	49-123	31*	20				
EFH (C8-C11)	74	82	49-123	11	20				
Batch number: 131600637001	Sample number(s): 7079475-7079477,7079479-7079480 UNSPK: P081058 BKG: P081058								

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1394291
Reported: 06/14/13 at 01:47 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
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Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Aluminum	1622 (2)	1543 (2)	75-125	1	20	8,890	9,900	11	20
Antimony	81	81	75-125	1	20	0.563 J	4.00 U	200* (1)	20
Arsenic	106	106	75-125	0	20	4.10	4.62	12 (1)	20
Barium	103	108	75-125	4	20	60.2	64.4	7	20
Beryllium	102	103	75-125	1	20	0.397 J	0.443 J	11 (1)	20
Boron	96	98	75-125	2	20	6.05 J	6.15 J	2 (1)	20
Cadmium	98	99	75-125	1	20	0.504 J	0.525 J	4 (1)	20
Calcium	127 (2)	111 (2)	75-125	2	20	2,410	2,290	5	20
Chromium	109	104	75-125	3	20	11.4	13.0	14 (1)	20
Cobalt	97	98	75-125	0	20	3.70	3.89	5 (1)	20
Copper	99	104	75-125	4	20	5.27	5.51	4 (1)	20
Iron	1612 (2)	1351 (2)	75-125	1	20	16,100	17,500	9	20
Lead	101	100	75-125	1	20	7.67	8.60	11 (1)	20
Lithium	105	105	75-125	1	20	21.8	24.4	11	20
Magnesium	353 (2)	374 (2)	75-125	1	20	3,490	3,880	11	20
Manganese	125 (2)	129 (2)	75-125	1	20	239	256	7	20
Molybdenum	98	99	75-125	1	20	0.759 J	0.385 J	65* (1)	20
Nickel	100	99	75-125	1	20	6.70	8.25	21* (1)	20
Phosphorus	103	114	75-125	2	20	378	383	1	20
Potassium	150*	149*	75-125	0	20	2,930	3,180	8	20
Sodium	100	101	75-125	1	20	62.7 J	68.0 J	8 (1)	20
Tin	93	92	75-125	0	20	2.66 J	2.68 J	1 (1)	20
Titanium	441 (2)	406 (2)	75-125	3	20	928	1,040	11	20
Vanadium	104	105	75-125	1	20	24.6	28.0	13	20
Zinc	110	111	75-125	1	20	66.1	71.2	7	20
Zirconium	100	101	75-125	1	20	2.18 J	2.97 J	31* (1)	20
Batch number: 131600637001A	Sample number(s): 7079475-7079477,7079479-7079480 UNSPK: P081058 BKG: P081058								
Silver	97	98	75-125	1	20	0.0317 J	0.200 U	200* (1)	20
Strontium	94	94	75-125	0	20	8.54	8.26	3	20
Thallium	112	107	75-125	3	20	0.198 J	0.229	15 (1)	20
Batch number: 131600637001B	Sample number(s): 7079475-7079477,7079479-7079480 UNSPK: P081058 BKG: P081058								
Selenium	107	108	75-125	2	20	0.400 U	0.400 U	0 (1)	20
Batch number: 131600638001	Sample number(s): 7079475-7079477,7079479-7079480 UNSPK: P078552 BKG: P078552								
3a Mercury 7471A	98	97	65-135	1	20	0.0117 J	0.0108 J	8 (1)	20
Batch number: 13155039401A	Sample number(s): 7079475-7079477,7079479-7079480 BKG: 7079475								
15a pH by 9045D						6.98	6.97	0	3
Batch number: 13162162401A	Sample number(s): 7079475-7079477,7079479-7079480 BKG: P081058								
14a Moisture Content by 160.3						2.1	1.4	40*	20
Batch number: 13161007	Sample number(s): 7079475-7079477,7079479-7079480 UNSPK: P078552								
2378-TCDD	102	107	40-135	7	20				
12378-PeCDD	105	99	40-135	3	20				
123478-HxCDD	95	96	40-135	3	20				
123678-HxCDD	99	97	40-135	0	20				
123789-HxCDD	97	95	40-135	0	20				

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1394291
Reported: 06/14/13 at 01:47 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
1234678-HpCDD	101	95	40-135	4	20				
OCDD	144*	94	40-135	36*	20				
2378-TCDF	107	106	40-135	1	20				
12378-PeCDF	97	97	40-135	2	20				
23478-PeCDF	98	95	40-135	1	20				
123478-HxCDF	92	90	40-135	0	20				
123678-HxCDF	91	92	40-135	3	20				
123789-HxCDF	90	89	40-135	1	20				
234678-HxCDF	93	92	40-135	1	20				
1234678-HpCDF	90	90	40-135	1	20				
1234789-HpCDF	90	92	40-135	5	20				
OCDF	92	88	40-135	2	20				

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 7b SVOC SIM EPA 8270D
Batch number: 13156WAL026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
7079473	92	106	100
7079474	89	98	99
Blank	90	102	99
LCS	88	97	97
LCSD	85	92	95
Limits:	64-120	62-141	58-134

Analysis Name: 7a SVOC SIM EPA 8270D
Batch number: 13157SLB026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
7079475	86	93	92
7079476	88	89	92
7079477	84	89	92
7079479	86	90	90
7079480	83	88	89
Blank	88	95	97
LCS	89	95	94
MS	78	85	90
MSD	91	88	95
Limits:	54-129	61-134	55-129

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1394291
Reported: 06/14/13 at 01:47 PM

Surrogate Quality Control

Analysis Name: 11a TPH by EPA 8015B GRO
Batch number: 13160A16A

	Trifluorotoluene-F
7079475	70
7079476	84
7079477	85
7079479	83
7079480	88
Blank	87
LCS	93
MS	80
MSD	91
Limits:	61-122

Analysis Name: 11b TPH by EPA 8015B GRO
Batch number: 13162A20A

	Trifluorotoluene-F
7079473	88
7079474	88
7079478	83
Blank	85
LCS	119
LCSD	120
Limits:	63-135

Analysis Name: 22b Pesticides by EPA 8081B
Batch number: 131570010A

	Tetrachloro-m-xylene	Decachlorobiphenyl
7079473	86	78
7079474	86	89
Blank	81	85
LCS	85	82
LCSD	85	71
Limits:	60-140	20-120

Analysis Name: 21b PCBs and PCTs 8082A
Batch number: 131570011A

	Tetrachloro-m-xylene	Decachlorobiphenyl
7079473	81	72
7079474	94	98
Blank	100	101
LCS	98	85
LCSD	84	54
Limits:	45-120	45-120

Analysis Name: 19a PCBs and PCTs 8082A
Batch number: 131580010A

	Tetrachloro-m-xylene	Decachlorobiphenyl

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1394291
Reported: 06/14/13 at 01:47 PM

Surrogate Quality Control

7079475	119	130*
7079476	115	122*
7079477	115	113
7079479	119	116
7079480	117	117
Blank	116	116
LCS	107	112
LCSD	115	119
MS	99	93
MSD	113	104
Limits:	45-120	45-120

Analysis Name: 10b TPH by EPA 8015B (DRO)
Batch number: 131570013A

	Chlorobenzene	Orthoterphenyl
7079473	89	84
7079474	87	83
Blank	77	69
LCS	93	93
LCSD	93	93
Limits:	45-126	69-119

Analysis Name: 10a TPH by EPA 8015B (DRO)
Batch number: 131580013A

	Chlorobenzene	Orthoterphenyl
7079475	93	92
7079476	94	94
7079477	90	91
7079479	89	88
7079480	88	86
Blank	93	85
LCS	94	95
MS	88	66
MSD	94	82
Limits:	37-125	66-123

Analysis Name: 17b Dioxin/Furan by EPA 1613B
Batch number: 13155003

	13C12-2378-TCDD	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF	13C12-234678-HxCDF	13C12-123789-HxCDF
7079473	58	74	81	80	80	88
7079474	68	76	84	85	84	93
Blank	75	83	92	90	90	97
OPR	67	78	86	86	85	94
Limits:	25-164	21-178	26-152	26-123	28-136	29-147

	13C12-1234678-HpCDF	13C12-1234789-HpCDF	13C12-OCDF	13C12-12378-PeCDD	13C12-123478-HxCDD	13C12-123678-HxCDD
7079473	80	77	73	73	80	82

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Quality Control Summary

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Reported: 06/14/13 at 01:47 PM

Surrogate Quality Control

7079474	85	82	78	76	85	86
Blank	90	85	80	83	92	90
OPR	86	83	78	79	87	87
Limits:	28-143	26-138	17-157	25-181	32-141	28-130

	13C12-123789-HxCDD	13C12-1234678-HpCDD	13C12-OCDD	13C12-2378-TCDF	13C12-12378-PeCDF
7079473	79	79	76	69	73
7079474	83	82	80	69	74
Blank	89	88	84	77	80
OPR	86	86	81	73	76
Limits:	28-130	23-140	17-157	24-169	24-185

Analysis Name: 23a Dioxin/Furan by EPA 1613B
Batch number: 13161007

	13C12-2378-TCDD	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF	13C12-234678-HxCDF	13C12-123789-HxCDF
7079475	69	94	74	79	74	73
7079476	71	96	74	80	72	72
7079477	68	101	76	82	76	74
7079479	72	96	73	81	73	66
7079480	73	99	81	89	81	71
Blank	62	81	71	73	70	67
MS	84	108	81	84	79	78
MSD	78	100	77	79	75	74
OPR	96	122	100	105	99	98
Limits:	25-164	21-178	26-152	26-123	28-136	29-147

	13C12-1234678-HpCDF	13C12-1234789-HpCDF	13C12-OCDF	13C12-12378-PeCDD	13C12-123478-HxCDD	13C12-123678-HxCDD
7079475	88	67	68	92	80	80
7079476	95	69	69	92	78	82
7079477	96	70	68	98	82	83
7079479	92	64	65	92	77	79
7079480	106	68	63	96	88	87
Blank	80	61	61	78	78	78
MS	88	74	75	101	84	83
MSD	90	67	70	99	81	81
OPR	118	93	95	118	107	107
Limits:	28-143	26-138	17-157	25-181	32-141	28-130

	13C12-123789-HxCDD	13C12-1234678-HpCDD	13C12-OCDD	13C12-2378-TCDF	13C12-12378-PeCDF
7079475	79	80	87	73	98
7079476	78	81	92	76	104
7079477	80	79	89	72	104
7079479	77	77	85	75	102
7079480	85	87	93	77	107
Blank	75	74	75	62	83
MS	82	83	89	85	112
MSD	79	80	89	81	106
OPR	105	107	117	98	129

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1394291
Reported: 06/14/13 at 01:47 PM

Surrogate Quality Control

Limits:	28-130	23-140	17-157	24-169	24-185

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

A-13013

SSFL Phase 3 Chain of Custody

CDM Smith G-1394291

DateShipped: 6/3/2013 S-7079473-80

CarrierName: FedEx

AirbillNo: 799910081427

Contact Name: Pam Hartman

Contact Phone: (818)466-8007

COC No: 20130603-01

Cooler #: 1

Lab: Lancaster

Lab Phone: 717-556-7259

Lab Address: 2425 New Holland Pike, Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Other Analysis/Notes
EB1-060313	6/3/13 15:00	WQ	HNO3 pH<2	1 - 250 mL Poly	10 day	X		X																													
EB1-060313	6/3/13 15:00	WQ	None	3 - 250 mL Amber	10 day							X			X							X															
EB1-060313	6/3/13 15:00	WQ	None	2 - 1 L Amber	10 day									X																							
EB1-060313	6/3/13 15:00	WQ	None	1 - 250 mL Poly	10 day														X																		
EB1-060313	6/3/13 15:00	WQ	HCl	2 - 1 L Amber	10 day																				X												
EB1-060313	6/3/13 15:00	WQ	HCl	3 - 40 mL Vial	10 day																			X													

Special Instructions:

Sampler: Pam Hartman

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
Shelly Mypal	06/03/13	1600									
										6/4/13	0930

COC Rev 2

COC: 20130603-01, Page 1 of 1

A-13013
G-1394291
S-7079473-80

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 6/3/2013
CarrierName: FedEx
AirbillNo: 799910081427

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20130603-02
Cooler #: 2
Lab: Lancaster
Lab Phone: 717-556-7259
Lab Address: 2425 New Holland Pike Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Other Analysis/Notes
EB2-060313	6/3/13 15:30	WQ	HNO3 pH<2	1 - 250 mL Poly	10 day	X		X																													
EB2-060313	6/3/13 15:30	WQ	None	3 - 250 mL Amber	10 day							X			X							X															
EB2-060313	6/3/13 15:30	WQ	None	2 - 1 L Amber	10 day									X																							
EB2-060313	6/3/13 15:30	WQ	None	1 - 250 mL Poly	10 day														X																		
EB2-060313	6/3/13 15:30	WQ	HCl	2 - 1 L Amber	10 day																				X												
EB2-060313	6/3/13 15:30	WQ	HCl	3 - 40 mL Vial	10 day																			X													

Special Instructions:

Sampler: Pam Hartman

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
[illegible]	06/03/13	1600									
									[illegible]	6/4/13	0930

A-13013
G-13942911
S-7079473-80

SSFL Phase 3 Chain of Custody

CDM Smith
DateShipped: 6/3/2013
CarrierName: FedEx
AirbillNo: 799910081427

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20130603-03
Cooler #: 3
Lab: Lancaster
Lab Phone: 717-556-7259
Lab Address: 2425 New Holland Pike, Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Other Analysis/Notes
SL-526-SA7-SB-9.0-10.0	6/3/13 11:35	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-526-SA7-SB-9.0-10.0	6/3/13 11:35	SO	None	1 - 4 oz glass	10 day													X																			
SL-532-SA7-SB-3.0-4.0	6/3/13 10:00	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-532-SA7-SB-3.0-4.0	6/3/13 10:00	SO	None	1 - 4 oz glass	10 day													X																			
SL-533-SA7-SB-2.5-3.5	6/3/13 09:10	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-533-SA7-SB-2.5-3.5	6/3/13 09:10	SO	None	1 - 4 oz glass	10 day													X																			
SL-526-SA7-SB-9.0-10.0	6/3/13 11:35	SO	None	2 - Encore	10 day																				X												
SL-532-SA7-SB-3.0-4.0	6/3/13 10:00	SO	None	2 - Encore	10 day																				X												
SL-533-SA7-SB-2.5-3.5	6/3/13 09:10	SO	None	2 - Encore	10 day																				X												
TB-060313	6/3/13 08:00	WQ	HCl	3 - 40 mL Vial	10 day																				X												
SL-525-SA7-SB-4.0-5.0	6/3/13 13:30	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-525-SA7-SB-4.0-5.0	6/3/13 13:30	SO	None	1 - 4 oz glass	10 day													X																			
SL-525-SA7-SB-9.5-10.5	6/3/13 14:00	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-525-SA7-SB-9.5-10.5	6/3/13 14:00	SO	None	1 - 4 oz glass	10 day													X																			

Special Instructions:

Sampler: V. Cortez

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
[illegible]	06/03/13	1600									
									[illegible]	6/4/13	0930

1 of 1

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 6/3/2013
CarrierName: FedEx
AirbillNo: 799910081427

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20130603-03
Cooler #: 3
Lab: Lancaster
Lab Phone: 717-556-7259
Lab Address: 2425 New Holland Pike, Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7470 (Water) / Mercury 7471 (Soil)	Fluoride 300.0/9056	5VOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Formaldehyde 8315	Cyanide 9012	NDMA 1625	Organotin	Methyl Mercury 1630	Other Analysis/Notes
SL-526-SA7-SB-9.0-10.0	6/3/13 11:35	SO	None	2 - SS-Sleeve	10 day	X	X				X		X	X											X												
SL-526-SA7-SB-9.0-10.0	6/3/13 11:35	SO	None	1 - 4 oz glass	10 day												X																				
SL-532-SA7-SB-3.0-4.0	6/3/13 10:00	SO	None	2 - SS-Sleeve	10 day	X	X				X		X	X											X												
SL-532-SA7-SB-3.0-4.0	6/3/13 10:00	SO	None	1 - 4 oz glass	10 day												X																				
SL-533-SA7-SB-2.5-3.5	6/3/13 09:10	SO	None	2 - SS-Sleeve	10 day	X	X				X		X	X											X												
SL-533-SA7-SB-2.5-3.5	6/3/13 09:10	SO	None	1 - 4 oz glass	10 day												X																				
SL-526-SA7-SB-9.0-10.0	6/3/13 11:35	SO	None	2 - Encore	10 day																		X														
SL-532-SA7-SB-3.0-4.0	6/3/13 10:00	SO	None	2 - Encore	10 day																		X														
SL-533-SA7-SB-2.5-3.5	6/3/13 09:10	SO	None	2 - Encore	10 day																		X														
TB-060313	6/3/13 08:00	WQ	HCl	3 - 40 mL Vial	10 day																		X														
SL-525-SA7-SB-4.0-5.0	6/3/13 13:30	SO	None	2 - SS-Sleeve	10 day	X	X				X		X	X											X												
SL-525-SA7-SB-4.0-5.0	6/3/13 13:30	SO	None	1 - 4 oz glass	10 day												X																				
SL-525-SA7-SB-9.5-10.5	6/3/13 14:00	SO	None	2 - SS-Sleeve	10 day	X	X				X		X	X											X												
SL-525-SA7-SB-9.5-10.5	6/3/13 14:00	SO	None	1 - 4 oz glass	10 day												X																				
SL-525-SA7-SB-4.0-5.0	6/3/13 13:30	SO	None	2 - Encore	10 day																		X														
SL-525-SA7-SB-9.5-10.5	6/3/13 14:00	SO	None	2 - Encore	10 day																		X														

Special Instructions:

Sampler: V. Coates

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
[illegible]	06/03/13	1600									

Amended COC received 6/5/13 from S. Mysel [illegible] 6/5/13

COC Rev 2

COC: 20130603-03 Page 1 of 1

Natalie R. Luciano

From: Mysel, Stefanie [MyselSJ@cdmsmith.com]
Sent: Wednesday, June 05, 2013 11:48 AM
To: Natalie R. Luciano; Burgesser, Todd
Cc: Hartman, Pamela
Subject: RE: SSFL 06/03/2013 COC

Attachments: Lancaster 060313.pdf

Lancaster 060313.pdf (83 KB)

Natalie,

Thanks for letting me know about these issues. For SL-525-SA7-SB-4.0-5.0 and SL-525-SA7-SB-9.5-10.5 we would like TPH-GRO analyzed. I missed entering it on the COC. I attached a revised COC with those samples on it. As for Pesticides, today's delivery (yesterday's sampling) will have soil needing to be analyzed for Pesticides. We would like the EBs to be analyzed for pesticides. Let me know if you have any other questions.

Regards,

Stefanie

Stefanie J. Mysel
Geologist

CDM Smith
100 Pringle Avenue
Suite 300
Walnut Creek, CA 94596

Main: 925-933-2900
Direct: 925-296-8081
Cell: 610-248-2430
Email: myselsj@cdmsmith.com<mailto:myselsj@cdmsmith.com>

From: Natalie R. Luciano [NLuciano@lancasterlabs.com]
Sent: Wednesday, June 05, 2013 8:33 AM
To: Mysel, Stefanie; Burgesser, Todd
Cc: Hartman, Pamela
Subject: RE: SSFL 06/03/2013 COC

Good morning,

I have a couple questions regarding yesterday's submittal.

- COC 20130603-03 does not have samples SL-525-SA7-SB-4.0-5.0 or SL-525-SA7-SB-9.5-10.5 marked for analysis of GRO, but we received containers for these. Is GRO needed?

- I also noticed that EB1 and EB2 (20130603-01 & 20130603-02) are marked for analysis of Pesticides 8081; however, none of the soils are being analyzed for Pesticides. Please confirm whether the EBs should be analyzed for pesticides.

Thanks for your help with this.

Natalie

Senior Specialist, Environmental Client Services

Phone: 717-556-7258

-----Original Message-----
From: Mysel, Stefanie [mailto:MyselSJ@cdmsmith.com]
Sent: Monday, June 03, 2013 6:31 PM
To: !US19_SSFLShip; Burgesser, Todd
Cc: Hartman, Pamela; Mysel, Stefanie
Subject: SSFL 06/03/2013 COC

3 coolers were shipped to your lab for delivery tomorrow. These samples are from today's sampling. Samples were collected from subarea 7. The airbill number for today's shipment is 799910081427. Let me know if you have any questions or issues. Attached is an excel table with sample names, dates and times from today's sampling. Tomorrow we will continue sampling subarea 7 and will sample subarea 5A also.

Stefanie J. Mysel

Geologist

CDM Smith

100 Pringle Avenue

Suite 300

Walnut Creek, CA 94596

Main: 925-933-2900

Direct: 925-296-8081

Cell: 610-248-2430

Email: myselsj@cdmsmith.com<mailto:myselsj@cdmsmith.com>

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G-1394291

Environmental Sample Administration
Receipt Documentation Log

Client/Project: CDM

Date of Receipt: 6/4/13

Time of Receipt: 0930

Source Code: 5C

Shipping Container Sealed: (YES) NO

Custody Seal Present * : (YES) NO

* Custody seal was intact unless otherwise noted in the discrepancy section

Package: (Chilled) Not Chilled

Temperature of Shipping Containers							
Cooler #	Thermometer ID	Temperature (°C)	Temp Bottle (TB) or Surface Temp (ST)	Wet Ice (WI) or Dry Ice (DI) or Ice Packs (IP)	Ice Present? Y/N	Loose (L) Bagged Ice (B) or NA	Comments
1	DT131	1.3	TB	WI	Y	B	
2	↓	1.0	↓	↓	↓	↓	
3	↓	0.9	↓	↓	↓	↓	
4							
5							
6							

Number of Trip Blanks received NOT listed on chain of custody: Ø

Paperwork Discrepancy/Unpacking Problems:

Also sent GRO bags for
SL-525-SA7-SB 4.0-5.0 &
SL-525-SA7-SB 9.5-10.5

Unpacker Signature/Emp#: [signature] 964 **Date/Time:** 6/4/13 1023

Issued by Dept. 6042 Management

2174.06

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	**BMQL**	Below Minimum Quantitation Level
N.D.	none detected	**MPN**	Most Probable Number
TNTC	Too Numerous To Count	**CP Units**	cobalt-chloroplatinate units
IU	International Units	**NTU**	nephelometric turbidity units
umhos/cm	micromhos/cm	**ng**	nanogram(s)
C	degrees Celsius	**F**	degrees Fahrenheit
meq	milliequivalents	**lb.**	pound(s)
g	gram(s)	**kg**	kilogram(s)
µg	microgram(s)	**mg**	milligram(s)
mL	milliliter(s)	**L**	liter(s)
m3	cubic meter(s)	**µL**	microliter(s)
		pg/L	picogram/liter

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

J estimated value – The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	**B**	Value is <CRDL, but ≥IDL
B	Analyte was also detected in the blank	**E**	Estimated due to interference
C	Pesticide result confirmed by GC/MS	**M**	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	**N**	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	**S**	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	**U**	Compound was not detected
P	Concentration difference between primary and confirmation columns >25%	**W**	Post digestion spike out of control limits
U	Compound was not detected	*****	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	**+**	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as “analyze immediately” are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL LANCASTER LABORATORIES BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF LANCASTER LABORATORIES AND (B) WHETHER LANCASTER LABORATORIES HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Lancaster Laboratories which includes any conditions that vary from the Standard Terms and Conditions, and Lancaster hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

June 21, 2013

Project: Phase 3 Subarea 7

Submittal Date: 06/05/2013
Group Number: 1394643
SDG: PH046
PO Number: 1204-002-001-AL
State of Sample Origin: CA

Client Sample Description	Lancaster Labs (LLI) #
SL-545A-SA7-SB-0.0-0.5 Soil	7081055
SL-545B-SA7-SB-0.0-0.5 Soil	7081056
SL-545C-SA7-SB-0.0-0.5 Soil	7081057
SL-513-SA7-SB-0.0-0.5 Soil	7081058
SL-513-SA7-SB-0.0-0.5MS Soil	7081059
SL-513-SA7-SB-0.0-0.5MSD Soil	7081060
SL-513-SA7-SB-0.0-0.5DUP Soil	7081061
SL-913-SA7-SB-0.0-0.5 Soil	7081062
SL-516-SA7-SB-0.0-0.5 Soil	7081063
SL-524-SA7-SB-1.0-2.0 Soil	7081064
SL-524-SA7-SB-1.0-2.0MS Soil	7081065
SL-524-SA7-SB-1.0-2.0MSD Soil	7081066
SL-524-SA7-SB-1.0-2.0DUP Soil	7081067
SL-524-SA7-SB-0.0-0.5 Soil	7081068
SL-924-SA7-SB-1.0-2.0 Soil	7081069
TB-060413 Water	7081070

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO	LLI	Attn: Nicole Maljovec
ELECTRONIC COPY TO	Eurofins Lancaster Labs	Attn: Natalie Luciano

Respectfully Submitted,

Natalie R. Luciano
Senior Specialist

(717) 556-7258

eurofins | Lancaster Laboratories

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Analysis Report

Sample Description: SL-545A-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7081055
LLI Group # 1394643
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/03/2013 14:50 by VC

Submitted: 06/05/2013 09:20
Reported: 06/21/2013 16:43

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

S545A SDG#: PH046-01

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs	**SW-846 8082A**		ug/kg		ug/kg	ug/kg	
10592	Aroclor 5432	63496-31-1	34	U	34	10	1
10592	Aroclor 5442	12642-23-8	34	U	34	10	1
10592	Aroclor 5460	11126-42-4	34	U	34	10	1
10592	PCB-1016	12674-11-2	18	U	18	3.4	1
10592	PCB-1221	11104-28-2	18	U	18	5.3	1
10592	PCB-1232	11141-16-5	18	U	18	4.2	1
10592	PCB-1242	53469-21-9	18	U	18	4.2	1
10592	PCB-1248	12672-29-6	18	U	18	3.4	1
10592	PCB-1254	11097-69-1	18	U	18	4.6	1
10592	PCB-1260	11096-82-5	18	U	18	4.0	1
10592	PCB-1262	37324-23-5	18	U	18	3.4	1
10592	PCB-1268	11100-14-4	18	U	18	3.4	1
Wet Chemistry	**EPA 160.3 modified**		%		%	%	
11624	14a Moisture Content by 160.3	n.a.	4.3		0.10	0.10	1

Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10592	19a PCBs and PCTs 8082A	SW-846 8082A	1	131580010A	06/10/2013 18:55	Monica M Souders	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	131580010A	06/08/2013 01:30	Karen L Beyer	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13162162401A	06/11/2013 23:07	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-545B-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7081056
LLI Group # 1394643
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/03/2013 15:00 by VC

Submitted: 06/05/2013 09:20
Reported: 06/21/2013 16:43

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

S545B SDG#: PH046-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs	**SW-846 8082A**		ug/kg		ug/kg	ug/kg	
10592	Aroclor 5432	63496-31-1	35	U	35	11	1
10592	Aroclor 5442	12642-23-8	35	U	35	11	1
10592	Aroclor 5460	11126-42-4	35	U	35	11	1
10592	PCB-1016	12674-11-2	18	U	18	3.5	1
10592	PCB-1221	11104-28-2	18	U	18	5.4	1
10592	PCB-1232	11141-16-5	18	U	18	4.4	1
10592	PCB-1242	53469-21-9	18	U	18	4.4	1
10592	PCB-1248	12672-29-6	18	U	18	3.5	1
10592	PCB-1254	11097-69-1	18	U	18	4.7	1
10592	PCB-1260	11096-82-5	18	U	18	4.1	1
10592	PCB-1262	37324-23-5	18	U	18	3.5	1
10592	PCB-1268	11100-14-4	18	U	18	3.5	1
Wet Chemistry	**EPA 160.3 modified**		%		%	%	
11624	14a Moisture Content by 160.3	n.a.	6.0		0.10	0.10	1

Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10592	19a PCBs and PCTs 8082A	SW-846 8082A	1	131580010A	06/10/2013 19:13	Monica M Souders	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	131580010A	06/08/2013 01:30	Karen L Beyer	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13162162401A	06/11/2013 23:07	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-545C-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7081057
LLI Group # 1394643
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/03/2013 15:10 by VC

Submitted: 06/05/2013 09:20
Reported: 06/21/2013 16:43

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

S545C SDG#: PH046-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs	**SW-846 8082A**		ug/kg		ug/kg	ug/kg	
10592	Aroclor 5432	63496-31-1	34	U	34	10	1
10592	Aroclor 5442	12642-23-8	34	U	34	10	1
10592	Aroclor 5460	11126-42-4	34	U	34	10	1
10592	PCB-1016	12674-11-2	17	U	17	3.4	1
10592	PCB-1221	11104-28-2	17	U	17	5.2	1
10592	PCB-1232	11141-16-5	17	U	17	4.2	1
10592	PCB-1242	53469-21-9	17	U	17	4.2	1
10592	PCB-1248	12672-29-6	17	U	17	3.4	1
10592	PCB-1254	11097-69-1	17	U	17	4.5	1
10592	PCB-1260	11096-82-5	17	U	17	4.0	1
10592	PCB-1262	37324-23-5	17	U	17	3.4	1
10592	PCB-1268	11100-14-4	17	U	17	3.4	1
Wet Chemistry	**EPA 160.3 modified**		%		%	%	
11624	14a Moisture Content by 160.3	n.a.	3.8		0.10	0.10	1

Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10592	19a PCBs and PCTs 8082A	SW-846 8082A	1	131580010A	06/10/2013 19:32	Monica M Souders	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	131580010A	06/08/2013 01:30	Karen L Beyer	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13162162401A	06/11/2013 23:07	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-513-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7081058
LLI Group # 1394643
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/04/2013 08:30 by VC

Submitted: 06/05/2013 09:20
Reported: 06/21/2013 16:43

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51300 SDG#: PH046-04BKG

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	17	U	17	6.8	10
12969	Acenaphthylene	208-96-8	17	U	17	3.4	10
12969	Anthracene	120-12-7	17	U	17	3.4	10
12969	Benzo(a)anthracene	56-55-3	17	U	17	6.8	10
12969	Benzo(a)pyrene	50-32-8	17	U	17	6.8	10
12969	Benzo(b)fluoranthene	205-99-2	18		17	6.8	10
12969	Benzo(e)pyrene	192-97-2	170	U	170	34	10
12969	Benzo(g,h,i)perylene	191-24-2	17	U	17	6.8	10
12969	Benzo(k)fluoranthene	207-08-9	17	U	17	6.8	10
12969	Butylbenzylphthalate	85-68-7	180	U	180	61	10
12969	Di-n-butylphthalate	84-74-2	180	U	180	61	10
12969	Chrysene	218-01-9	23		17	3.4	10
12969	Dibenz(a,h)anthracene	53-70-3	17	U	17	6.8	10
12969	Diethylphthalate	84-66-2	180	U	180	61	10
12969	Dimethylphthalate	131-11-3	180	U	180	61	10
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	180	U	180	61	10
12969	Fluoranthene	206-44-0	7.0	J	17	6.8	10
12969	Fluorene	86-73-7	17	U	17	6.8	10
12969	Indeno(1,2,3-cd)pyrene	193-39-5	17	U	17	6.8	10
12969	1-Methylnaphthalene	90-12-0	17	U	17	6.8	10
12969	2-Methylnaphthalene	91-57-6	17	U	17	6.8	10
12969	Naphthalene	91-20-3	17	U	17	6.8	10
12969	N-Nitrosodimethylamine	62-75-9	17	U	17	6.8	10
12969	Di-n-octylphthalate	117-84-0	180	U	180	61	10
12969	Phenanthrene	85-01-8	17	U	17	6.8	10
12969	Pyrene	129-00-0	7.5	J	17	6.8	10

Reporting limits were raised due to interference from the sample matrix.

Pesticides/PCBs	**SW-846 8081B**		**ug/kg**		**ug/kg**	**ug/kg**	
10590	Aldrin	309-00-2	0.85	U	0.85	0.17	1
10590	Alpha BHC	319-84-6	0.85	U	0.85	0.17	1
10590	Beta BHC	319-85-7	1.9	U	1.9	0.98	1
10590	Gamma BHC - Lindane	58-89-9	0.85	U	0.85	0.17	1
10590	Chlordane	57-74-9	17	U	17	4.1	1
10590	p,p-DDD	72-54-8	1.7	U	1.7	0.34	1
10590	p,p-DDE	72-55-9	0.53	J	1.7	0.34	1
10590	p,p-DDT	50-29-3	7.0		1.7	0.36	1
10590	Delta BHC	319-86-8	0.85	U	0.85	0.46	1
10590	Dieldrin	60-57-1	1.7	U	1.7	0.34	1
10590	Endosulfan I	959-98-8	0.85	U	0.85	0.22	1
10590	Endosulfan II	33213-65-9	1.7	U	1.7	0.34	1
10590	Endosulfan Sulfate	1031-07-8	1.7	U	1.7	0.34	1
10590	Endrin	72-20-8	1.7	U	1.7	0.34	1
10590	Endrin Aldehyde	7421-93-4	1.7	U	1.7	0.34	1
10590	Endrin Ketone	53494-70-5	1.8	U	1.8	0.61	1
10590	Heptachlor	76-44-8	0.85	U	0.85	0.17	1
10590	Heptachlor Epoxide	1024-57-3	0.85	U	0.85	0.17	1
10590	Methoxychlor	72-43-5	6.8	U	6.8	1.7	1
10590	Mirex	2385-85-5	0.63	J	1.7	0.36	1
10590	Toxaphene	8001-35-2	34	U	34	14	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-513-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7081058
LLI Group # 1394643
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/04/2013 08:30 by VC

Submitted: 06/05/2013 09:20
Reported: 06/21/2013 16:43

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51300 SDG#: PH046-04BKG

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
10592	Aroclor 5432	63496-31-1	33	U	33	10	1
10592	Aroclor 5442	12642-23-8	33	U	33	10	1
10592	Aroclor 5460	11126-42-4	33	U	33	10	1
10592	PCB-1016	12674-11-2	17	U	17	3.3	1
10592	PCB-1221	11104-28-2	17	U	17	5.2	1
10592	PCB-1232	11141-16-5	17	U	17	4.1	1
10592	PCB-1242	53469-21-9	17	U	17	4.1	1
10592	PCB-1248	12672-29-6	17	U	17	3.3	1
10592	PCB-1254	11097-69-1	13	J	17	4.5	1
10592	PCB-1260	11096-82-5	17	U	17	3.9	1
10592	PCB-1262	37324-23-5	17	U	17	3.3	1
10592	PCB-1268	11100-14-4	17	U	17	3.3	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	25	U	25	10	5
12952	EFH (C15-C20)	n.a.	25	U	25	10	5
12952	EFH (C21-C30)	n.a.	100		25	10	5
12952	EFH (C30-C40)	n.a.	160		51	20	5
12952	EFH (C8-C11)	n.a.	25	U	25	10	5
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	9,050		40.7	7.85	1
06944	Antimony	7440-36-0	0.573	J	4.07	0.509	1
06935	Arsenic	7440-38-2	4.18		4.07	0.336	1
06946	Barium	7440-39-3	61.3		1.02	0.0336	1
06947	Beryllium	7440-41-7	0.404	J	1.02	0.0682	1
07914	Boron	7440-42-8	6.16	J	10.2	0.845	1
06949	Cadmium	7440-43-9	0.513	J	1.02	0.0336	1
01650	Calcium	7440-70-2	2,450		20.4	4.09	1
06951	Chromium	7440-47-3	11.6		3.05	0.0896	1
06952	Cobalt	7440-48-4	3.77		1.02	0.0916	1
06953	Copper	7440-50-8	5.37		2.04	0.183	1
01654	Iron	7439-89-6	16,400		40.7	3.87	1
06955	Lead	7439-92-1	7.81		3.05	0.479	1
01656	Lithium	7439-93-2	22.2		4.1	0.56	1
01657	Magnesium	7439-95-4	3,550		10.2	1.76	1
06958	Manganese	7439-96-5	243		1.02	0.0845	1
06960	Molybdenum	7439-98-7	0.773	J	2.04	0.173	1
06961	Nickel	7440-02-0	6.82		2.04	0.112	1
10145	Phosphorus	7723-14-0	385		10.2	0.519	1
01662	Potassium	7440-09-7	2,980		102	13.7	1
01667	Sodium	7440-23-5	63.8	J	102	17.0	1
06969	Tin	7440-31-5	2.71	J	10.2	0.224	1
06970	Titanium	7440-32-6	945		1.02	0.173	1
06971	Vanadium	7440-62-2	25.0		1.02	0.112	1
06972	Zinc	7440-66-6	67.4		4.07	0.204	1
10146	Zirconium	7440-67-7	2.22	J	5.09	0.845	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-513-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7081058
LLI Group # 1394643
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/04/2013 08:30 by VC

Submitted: 06/05/2013 09:20
Reported: 06/21/2013 16:43

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51300 SDG#: PH046-04BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 6020A**		**mg/kg**	**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.407 U	0.407	0.102	2
06142	Silver	7440-22-4	0.0323 J	0.204	0.0204	2
06144	Strontium	7440-24-6	8.69	0.407	0.0346	2
06145	Thallium	7440-28-0	0.202 J	0.204	0.0305	2
	SW-846 7471B		**mg/kg**	**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0151 J	0.0168	0.0101	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**	**Std. Units**	**Std. Units**	
00394	15a pH by 9045D	n.a.	6.68	0.0100	0.0100	1
	The pH was measured in water at 21.3 C.					
Wet Chemistry	**EPA 160.3 modified**		**%**	**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	1.8	0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.					

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-513-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7081058
LLI Group # 1394643
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/04/2013 08:30 by VC

Submitted: 06/05/2013 09:20
Reported: 06/21/2013 16:43

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51300 SDG#: PH046-04BKG

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.110	J	1.02	0.0312	1
11031	12378-PeCDD	40321-76-4	0.451	JB	5.09	0.0588	1
11031	123478-HxCDD	39227-28-6	1.06	JBQ	5.09	0.0415	1
11031	123678-HxCDD	57653-85-7	3.18	J	5.09	0.0445	1
11031	123789-HxCDD	19408-74-3	1.87	JB	5.09	0.0401	1
11031	1234678-HpCDD	35822-46-9	95.8	B	5.09	0.0514	1
11031	OCDD	3268-87-9	906	B	10.2	0.0441	1
11031	2378-TCDF	51207-31-9	0.763	JB	1.02	0.0947	1
11031	12378-PeCDF	57117-41-6	0.702	JB	5.09	0.0491	1
11031	23478-PeCDF	57117-31-4	0.839	JB	5.09	0.0439	1
11031	123478-HxCDF	70648-26-9	0.876	JB	5.09	0.0378	1
11031	123678-HxCDF	57117-44-9	0.913	J	5.09	0.0376	1
11031	123789-HxCDF	72918-21-9	0.242	JB	5.09	0.0380	1
11031	234678-HxCDF	60851-34-5	0.894	JB	5.09	0.0375	1
11031	1234678-HpCDF	67562-39-4	19.2	B	5.09	0.0315	1
11031	1234789-HpCDF	55673-89-7	1.28	JB	5.09	0.0342	1
11031	OCDF	39001-02-0	82.8	B	10.2	0.0356	1
Toxic Equivalents	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	3.17				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	83	25 - 164
13C12-12378-PeCDD	91	25 - 181
13C12-123478-HxCDD	85	32 - 141
13C12-123678-HxCDD	85	28 - 130
13C12-123789-HxCDD	85	28 - 130
13C12-1234678-HpCDD	92	23 - 140
13C12-OCDD	95	17 - 157
13C12-2378-TCDF	79	24 - 169
13C12-12378-PeCDF	88	24 - 185
13C12-23478-PeCDF	91	21 - 178
13C12-123478-HxCDF	90	26 - 152
13C12-123678-HxCDF	89	26 - 123
13C12-234678-HxCDF	90	28 - 136
13C12-123789-HxCDF	96	29 - 147
13C12-1234678-HpCDF	96	28 - 143
13C12-1234789-HpCDF	98	26 - 138
13C12-OCDF	97	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration

*=This limit was used in the evaluation of the final result

Sample Description: SL-513-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7081058
LLI Group # 1394643
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/04/2013 08:30 by VC

Submitted: 06/05/2013 09:20
Reported: 06/21/2013 16:43

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51300 SDG#: PH046-04BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-513-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7081058
LLI Group # 1394643
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/04/2013 08:30 by VC

Submitted: 06/05/2013 09:20
Reported: 06/21/2013 16:43

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51300 SDG#: PH046-04BKG

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13158SLB026	06/13/2013 04:03	Mark A Clark	10
10811	BNA Soil Microwave SIM	SW-846 3546	1	13158SLB026	06/07/2013 17:40	Sally L Appleyard	1
10590	20a Pesticides by EPA 8081B	SW-846 8081B	1	131620099A	06/20/2013 19:43	Jamie L Brillhart	1
10592	19a PCBs and PCTs 8082A	SW-846 8082A	1	131580010A	06/10/2013 10:47	Monica M Souders	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	131580010A	06/08/2013 01:30	Karen L Beyer	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	131620099A	06/11/2013 19:00	Sally L Appleyard	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	131580013A	06/10/2013 23:57	Heather E Williams	5
12959	EFH soil ext.(microwave)	SW-846 3546	1	131580013A	06/09/2013 08:00	Joseph S Feister	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13168006	06/19/2013 15:20	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	2	13168006	06/17/2013 12:00	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010C	1	131600637001	06/11/2013 16:57	John P Hook	1
06944	Antimony	SW-846 6010C	1	131600637001	06/11/2013 16:57	John P Hook	1
06935	Arsenic	SW-846 6010C	1	131600637001	06/11/2013 16:57	John P Hook	1
06946	Barium	SW-846 6010C	1	131600637001	06/11/2013 16:57	John P Hook	1
06947	Beryllium	SW-846 6010C	1	131600637001	06/11/2013 16:57	John P Hook	1
07914	Boron	SW-846 6010C	1	131600637001	06/11/2013 16:57	John P Hook	1
06949	Cadmium	SW-846 6010C	1	131600637001	06/11/2013 16:57	John P Hook	1
01650	Calcium	SW-846 6010C	1	131600637001	06/11/2013 16:57	John P Hook	1
06951	Chromium	SW-846 6010C	1	131600637001	06/11/2013 16:57	John P Hook	1
06952	Cobalt	SW-846 6010C	1	131600637001	06/11/2013 16:57	John P Hook	1
06953	Copper	SW-846 6010C	1	131600637001	06/11/2013 16:57	John P Hook	1
01654	Iron	SW-846 6010C	1	131600637001	06/11/2013 16:57	John P Hook	1
06955	Lead	SW-846 6010C	1	131600637001	06/11/2013 16:57	John P Hook	1
01656	Lithium	SW-846 6010C	1	131600637001	06/11/2013 16:57	John P Hook	1
01657	Magnesium	SW-846 6010C	1	131600637001	06/11/2013 16:57	John P Hook	1
06958	Manganese	SW-846 6010C	1	131600637001	06/11/2013 16:57	John P Hook	1
06960	Molybdenum	SW-846 6010C	1	131600637001	06/11/2013 16:57	John P Hook	1
06961	Nickel	SW-846 6010C	1	131600637001	06/11/2013 16:57	John P Hook	1
10145	Phosphorus	SW-846 6010C	1	131600637001	06/11/2013 16:57	John P Hook	1
01662	Potassium	SW-846 6010C	1	131600637001	06/11/2013 16:57	John P Hook	1
01667	Sodium	SW-846 6010C	1	131600637001	06/11/2013 16:57	John P Hook	1
06969	Tin	SW-846 6010C	1	131600637001	06/11/2013 16:57	John P Hook	1
06970	Titanium	SW-846 6010C	1	131600637001	06/11/2013 16:57	John P Hook	1
06971	Vanadium	SW-846 6010C	1	131600637001	06/11/2013 16:57	John P Hook	1
06972	Zinc	SW-846 6010C	1	131600637001	06/11/2013 16:57	John P Hook	1
10146	Zirconium	SW-846 6010C	1	131600637001	06/11/2013 16:57	John P Hook	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-513-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7081058
LLI Group # 1394643
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/04/2013 08:30 by VC

Submitted: 06/05/2013 09:20
Reported: 06/21/2013 16:43

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51300 SDG#: PH046-04BKG

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06141	Selenium	SW-846 6020A	1	131600637001B	06/11/2013 18:04	David K Beck	2
06142	Silver	SW-846 6020A	1	131600637001A	06/11/2013 18:04	David K Beck	2
06144	Strontium	SW-846 6020A	1	131600637001A	06/11/2013 18:04	David K Beck	2
06145	Thallium	SW-846 6020A	1	131600637001A	06/11/2013 18:04	David K Beck	2
00159	3a Mercury 7471A	SW-846 7471B	1	131600638002	06/11/2013 19:12	Katlin N Cataldi	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	131600637001	06/10/2013 23:43	Annamaria Stipkovits	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	131600638002	06/11/2013 04:00	Annamaria Stipkovits	1
00394	15a pH by 9045D	SW-846 9045D modified	1	13156039401A	06/05/2013 21:00	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	2	13163162401A	06/12/2013 20:12	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-513-SA7-SB-0.0-0.5MS Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7081059
LLI Group # 1394643
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/04/2013 08:30 by VC

Submitted: 06/05/2013 09:20
Reported: 06/21/2013 16:43

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51300 SDG#: PH046-04MS

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	36		17	6.8	10
12969	Acenaphthylene	208-96-8	30		17	3.4	10
12969	Anthracene	120-12-7	32		17	3.4	10
12969	Benzo(a)anthracene	56-55-3	37		17	6.8	10
12969	Benzo(a)pyrene	50-32-8	38		17	6.8	10
12969	Benzo(b)fluoranthene	205-99-2	67		17	6.8	10
12969	Benzo(e)pyrene	192-97-2	55	J	170	34	10
12969	Benzo(g,h,i)perylene	191-24-2	20		17	6.8	10
12969	Benzo(k)fluoranthene	207-08-9	46		17	6.8	10
12969	Butylbenzylphthalate	85-68-7	180	U	180	61	10
12969	Di-n-butylphthalate	84-74-2	180	U	180	61	10
12969	Chrysene	218-01-9	59		17	3.4	10
12969	Dibenz(a,h)anthracene	53-70-3	24		17	6.8	10
12969	Diethylphthalate	84-66-2	180	U	180	61	10
12969	Dimethylphthalate	131-11-3	180	U	180	61	10
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	180	U	180	61	10
12969	Fluoranthene	206-44-0	41		17	6.8	10
12969	Fluorene	86-73-7	33		17	6.8	10
12969	Indeno(1,2,3-cd)pyrene	193-39-5	25		17	6.8	10
12969	1-Methylnaphthalene	90-12-0	31		17	6.8	10
12969	2-Methylnaphthalene	91-57-6	31		17	6.8	10
12969	Naphthalene	91-20-3	35		17	6.8	10
12969	N-Nitrosodimethylamine	62-75-9	55		17	6.8	10
12969	Di-n-octylphthalate	117-84-0	65	J	180	61	10
12969	Phenanthrene	85-01-8	32		17	6.8	10
12969	Pyrene	129-00-0	41		17	6.8	10

Reporting limits were raised due to interference from the sample matrix.

Pesticides/PCBs	**SW-846 8081B**		**ug/kg**		**ug/kg**	**ug/kg**	
10590	Aldrin	309-00-2	3.0		0.85	0.17	1
10590	Alpha BHC	319-84-6	3.1		0.85	0.17	1
10590	Beta BHC	319-85-7	2.9		1.9	0.98	1
10590	Gamma BHC - Lindane	58-89-9	3.2		0.85	0.17	1
10590	Chlordane	57-74-9	17	U	17	4.1	1
10590	p,p-DDD	72-54-8	6.4		1.7	0.34	1
10590	p,p-DDE	72-55-9	7.0		1.7	0.34	1
10590	p,p-DDT	50-29-3	40		1.7	0.36	1
10590	Delta BHC	319-86-8	3.1		0.85	0.46	1
10590	Dieldrin	60-57-1	6.8		1.7	0.34	1
10590	Endosulfan I	959-98-8	2.7		0.85	0.22	1
10590	Endosulfan II	33213-65-9	7.4		1.7	0.34	1
10590	Endosulfan Sulfate	1031-07-8	6.6		1.7	0.34	1
10590	Endrin	72-20-8	6.3		1.7	0.34	1
10590	Endrin Aldehyde	7421-93-4	4.3		1.7	0.34	1
10590	Endrin Ketone	53494-70-5	5.4		1.8	0.61	1
10590	Heptachlor	76-44-8	3.0		0.85	0.17	1
10590	Heptachlor Epoxide	1024-57-3	3.5		0.85	0.17	1
10590	Methoxychlor	72-43-5	33		6.8	1.7	1
10590	Mirex	2385-85-5	1.7	U	1.7	0.36	1
10590	Toxaphene	8001-35-2	34	U	34	14	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-513-SA7-SB-0.0-0.5MS Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7081059
LLI Group # 1394643
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/04/2013 08:30 by VC

Submitted: 06/05/2013 09:20
Reported: 06/21/2013 16:43

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51300 SDG#: PH046-04MS

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
10592	Aroclor 5432	63496-31-1	34	U	34	10	1
10592	Aroclor 5442	12642-23-8	34	U	34	10	1
10592	Aroclor 5460	11126-42-4	34	U	34	10	1
10592	PCB-1016	12674-11-2	140		17	3.4	1
10592	PCB-1221	11104-28-2	17	U	17	5.2	1
10592	PCB-1232	11141-16-5	17	U	17	4.2	1
10592	PCB-1242	53469-21-9	17	U	17	4.2	1
10592	PCB-1248	12672-29-6	17	U	17	3.4	1
10592	PCB-1254	11097-69-1	44		17	4.5	1
10592	PCB-1260	11096-82-5	120		17	4.0	1
10592	PCB-1262	37324-23-5	17	U	17	3.4	1
10592	PCB-1268	11100-14-4	17	U	17	3.4	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	25	U	25	10	5
12952	EFH (C15-C20)	n.a.	25	U	25	10	5
12952	EFH (C21-C30)	n.a.	170		25	10	5
12952	EFH (C30-C40)	n.a.	310		51	20	5
12952	EFH (C8-C11)	n.a.	25	U	25	10	5
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	12,400		40.7	7.85	1
06944	Antimony	7440-36-0	41.8		4.07	0.509	1
06935	Arsenic	7440-38-2	20.4		4.07	0.336	1
06946	Barium	7440-39-3	271		1.02	0.0336	1
06947	Beryllium	7440-41-7	5.58		1.02	0.0682	1
07914	Boron	7440-42-8	202		10.2	0.845	1
06949	Cadmium	7440-43-9	5.50		1.02	0.0336	1
01650	Calcium	7440-70-2	2,970		20.4	4.09	1
06951	Chromium	7440-47-3	33.8		3.05	0.0896	1
06952	Cobalt	7440-48-4	53.4		1.02	0.0916	1
06953	Copper	7440-50-8	30.6		2.04	0.183	1
01654	Iron	7439-89-6	18,000		40.7	3.87	1
06955	Lead	7439-92-1	23.2		3.05	0.479	1
01656	Lithium	7439-93-2	129		4.1	0.56	1
01657	Magnesium	7439-95-4	4,270		10.2	1.76	1
06958	Manganese	7439-96-5	307		1.02	0.0845	1
06960	Molybdenum	7439-98-7	200		2.04	0.173	1
06961	Nickel	7440-02-0	57.9		2.04	0.112	1
10145	Phosphorus	7723-14-0	490		10.2	0.519	1
01662	Potassium	7440-09-7	4,520		102	13.7	1
01667	Sodium	7440-23-5	1,080		102	17.0	1
06969	Tin	7440-31-5	380		10.2	0.224	1
06970	Titanium	7440-32-6	1,390		1.02	0.173	1
06971	Vanadium	7440-62-2	77.7		1.02	0.112	1
06972	Zinc	7440-66-6	123		4.07	0.204	1
10146	Zirconium	7440-67-7	104		5.09	0.845	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-513-SA7-SB-0.0-0.5MS Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7081059
LLI Group # 1394643
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/04/2013 08:30 by VC

Submitted: 06/05/2013 09:20
Reported: 06/21/2013 16:43

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51300 SDG#: PH046-04MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 6020A**		**mg/kg**	**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	2.17	0.407	0.102	2
06142	Silver	7440-22-4	9.90	0.204	0.0204	2
06144	Strontium	7440-24-6	16.4	0.407	0.0346	2
06145	Thallium	7440-28-0	0.658	0.204	0.0305	2
	SW-846 7471B		**mg/kg**	**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.183	0.0164	0.0098	1
Wet Chemistry	**EPA 160.3 modified**		**%**	**%**	**%**	
11625	14a Moisture Content by 160.3	n.a.	1.8	0.10	0.10	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-513-SA7-SB-0.0-0.5MS Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7081059
LLI Group # 1394643
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/04/2013 08:30 by VC

Submitted: 06/05/2013 09:20
Reported: 06/21/2013 16:43

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51300 SDG#: PH046-04MS

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	19.1		1.00	0.0368	1
11031	12378-PeCDD	40321-76-4	101	B	5.02	0.0557	1
11031	123478-HxCDD	39227-28-6	108	B	5.02	0.0394	1
11031	123678-HxCDD	57653-85-7	106		5.02	0.0403	1
11031	123789-HxCDD	19408-74-3	105	B	5.02	0.0381	1
11031	1234678-HpCDD	35822-46-9	149	B	5.02	0.0446	1
11031	OCDD	3268-87-9	656	B	10.0	0.0386	1
11031	2378-TCDF	51207-31-9	20.1	B	1.00	0.0612	1
11031	12378-PeCDF	57117-41-6	104	B	5.02	0.0419	1
11031	23478-PeCDF	57117-31-4	106	B	5.02	0.0382	1
11031	123478-HxCDF	70648-26-9	108	B	5.02	0.0376	1
11031	123678-HxCDF	57117-44-9	104		5.02	0.0368	1
11031	123789-HxCDF	72918-21-9	105	B	5.02	0.0378	1
11031	234678-HxCDF	60851-34-5	105	B	5.02	0.0360	1
11031	1234678-HpCDF	67562-39-4	113	B	5.02	0.0441	1
11031	1234789-HpCDF	55673-89-7	104	B	5.02	0.0496	1
11031	OCDF	39001-02-0	232	B	10.0	0.0352	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	81	25 - 164
13C12-12378-PeCDD	92	25 - 181
13C12-123478-HxCDD	85	32 - 141
13C12-123678-HxCDD	85	28 - 130
13C12-123789-HxCDD	86	28 - 130
13C12-1234678-HpCDD	91	23 - 140
13C12-OCDD	92	17 - 157
13C12-2378-TCDF	79	24 - 169
13C12-12378-PeCDF	90	24 - 185
13C12-23478-PeCDF	92	21 - 178
13C12-123478-HxCDF	88	26 - 152
13C12-123678-HxCDF	89	26 - 123
13C12-234678-HxCDF	89	28 - 136
13C12-123789-HxCDF	92	29 - 147
13C12-1234678-HpCDF	96	28 - 143
13C12-1234789-HpCDF	96	26 - 138
13C12-OCDF	91	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present
S Saturation of detection signal

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-513-SA7-SB-0.0-0.5MS Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7081059
LLI Group # 1394643
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/04/2013 08:30 by VC

Submitted: 06/05/2013 09:20
Reported: 06/21/2013 16:43

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51300 SDG#: PH046-04MS

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13158SLB026	06/13/2013 04:36	Mark A Clark	10
10811	BNA Soil Microwave SIM	SW-846 3546	1	13158SLB026	06/07/2013 17:40	Sally L Appleyard	1
10590	20a Pesticides by EPA 8081B	SW-846 8081B	1	131620099A	06/20/2013 20:14	Jamie L Brillhart	1
10592	19a PCBs and PCTs 8082A	SW-846 8082A	1	131580010A	06/10/2013 11:06	Monica M Souders	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	131580010A	06/08/2013 01:30	Karen L Beyer	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	131620099A	06/11/2013 19:00	Sally L Appleyard	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	131580013A	06/11/2013 00:39	Heather E Williams	5
12959	EFH soil ext.(microwave)	SW-846 3546	1	131580013A	06/09/2013 08:00	Joseph S Feister	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13168006	06/19/2013 16:17	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	2	13168006	06/17/2013 12:00	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010C	1	131600637001	06/11/2013 17:09	John P Hook	1
06944	Antimony	SW-846 6010C	1	131600637001	06/11/2013 17:09	John P Hook	1
06935	Arsenic	SW-846 6010C	1	131600637001	06/11/2013 17:09	John P Hook	1
06946	Barium	SW-846 6010C	1	131600637001	06/11/2013 17:09	John P Hook	1
06947	Beryllium	SW-846 6010C	1	131600637001	06/11/2013 17:09	John P Hook	1
07914	Boron	SW-846 6010C	1	131600637001	06/11/2013 17:09	John P Hook	1
06949	Cadmium	SW-846 6010C	1	131600637001	06/11/2013 17:09	John P Hook	1
01650	Calcium	SW-846 6010C	1	131600637001	06/11/2013 17:09	John P Hook	1
06951	Chromium	SW-846 6010C	1	131600637001	06/11/2013 17:09	John P Hook	1
06952	Cobalt	SW-846 6010C	1	131600637001	06/11/2013 17:09	John P Hook	1
06953	Copper	SW-846 6010C	1	131600637001	06/11/2013 17:09	John P Hook	1
01654	Iron	SW-846 6010C	1	131600637001	06/11/2013 17:09	John P Hook	1
06955	Lead	SW-846 6010C	1	131600637001	06/11/2013 17:09	John P Hook	1
01656	Lithium	SW-846 6010C	1	131600637001	06/11/2013 17:09	John P Hook	1
01657	Magnesium	SW-846 6010C	1	131600637001	06/11/2013 17:09	John P Hook	1
06958	Manganese	SW-846 6010C	1	131600637001	06/11/2013 17:09	John P Hook	1
06960	Molybdenum	SW-846 6010C	1	131600637001	06/11/2013 17:09	John P Hook	1
06961	Nickel	SW-846 6010C	1	131600637001	06/11/2013 17:09	John P Hook	1
10145	Phosphorus	SW-846 6010C	1	131600637001	06/11/2013 17:09	John P Hook	1
01662	Potassium	SW-846 6010C	1	131600637001	06/11/2013 17:09	John P Hook	1
01667	Sodium	SW-846 6010C	1	131600637001	06/11/2013 17:09	John P Hook	1
06969	Tin	SW-846 6010C	1	131600637001	06/11/2013 17:09	John P Hook	1
06970	Titanium	SW-846 6010C	1	131600637001	06/11/2013 17:09	John P Hook	1
06971	Vanadium	SW-846 6010C	1	131600637001	06/11/2013 17:09	John P Hook	1
06972	Zinc	SW-846 6010C	1	131600637001	06/11/2013 17:09	John P Hook	1
10146	Zirconium	SW-846 6010C	1	131600637001	06/11/2013 17:09	John P Hook	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-513-SA7-SB-0.0-0.5MS Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7081059
LLI Group # 1394643
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/04/2013 08:30 by VC

Submitted: 06/05/2013 09:20
Reported: 06/21/2013 16:43

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51300 SDG#: PH046-04MS

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06141	Selenium	SW-846 6020A	1	131600637001B	06/11/2013 18:11	David K Beck	2
06142	Silver	SW-846 6020A	1	131600637001A	06/11/2013 18:11	David K Beck	2
06144	Strontium	SW-846 6020A	1	131600637001A	06/11/2013 18:11	David K Beck	2
06145	Thallium	SW-846 6020A	1	131600637001A	06/11/2013 18:11	David K Beck	2
00159	3a Mercury 7471A	SW-846 7471B	1	131600638002	06/11/2013 19:18	Katlin N Cataldi	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	131600637001	06/10/2013 23:43	Annamaria Stipkovits	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	131600638002	06/11/2013 04:00	Annamaria Stipkovits	1
11625	14a Moisture Content by 160.3	EPA 160.3 modified	2	13163162401A	06/12/2013 20:12	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-513-SA7-SB-0.0-0.5MSD Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7081060
LLI Group # 1394643
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/04/2013 08:30 by VC

Submitted: 06/05/2013 09:20
Reported: 06/21/2013 16:43

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51300 SDG#: PH046-04MSD

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	37		17	6.8	10
12969	Acenaphthylene	208-96-8	31		17	3.4	10
12969	Anthracene	120-12-7	34		17	3.4	10
12969	Benzo(a)anthracene	56-55-3	42		17	6.8	10
12969	Benzo(a)pyrene	50-32-8	39		17	6.8	10
12969	Benzo(b)fluoranthene	205-99-2	56		17	6.8	10
12969	Benzo(e)pyrene	192-97-2	60	J	170	34	10
12969	Benzo(g,h,i)perylene	191-24-2	21		17	6.8	10
12969	Benzo(k)fluoranthene	207-08-9	45		17	6.8	10
12969	Butylbenzylphthalate	85-68-7	180	U	180	61	10
12969	Di-n-butylphthalate	84-74-2	180	U	180	61	10
12969	Chrysene	218-01-9	57		17	3.4	10
12969	Dibenz(a,h)anthracene	53-70-3	26		17	6.8	10
12969	Diethylphthalate	84-66-2	180	U	180	61	10
12969	Dimethylphthalate	131-11-3	180	U	180	61	10
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	180	U	180	61	10
12969	Fluoranthene	206-44-0	40		17	6.8	10
12969	Fluorene	86-73-7	34		17	6.8	10
12969	Indeno(1,2,3-cd)pyrene	193-39-5	24		17	6.8	10
12969	1-Methylnaphthalene	90-12-0	32		17	6.8	10
12969	2-Methylnaphthalene	91-57-6	32		17	6.8	10
12969	Naphthalene	91-20-3	36		17	6.8	10
12969	N-Nitrosodimethylamine	62-75-9	46		17	6.8	10
12969	Di-n-octylphthalate	117-84-0	61	J	180	61	10
12969	Phenanthrene	85-01-8	32		17	6.8	10
12969	Pyrene	129-00-0	38		17	6.8	10

Reporting limits were raised due to interference from the sample matrix.

Pesticides/PCBs	**SW-846 8081B**		**ug/kg**		**ug/kg**	**ug/kg**	
10590	Aldrin	309-00-2	3.1		0.85	0.17	1
10590	Alpha BHC	319-84-6	3.2		0.85	0.17	1
10590	Beta BHC	319-85-7	2.9		1.9	0.98	1
10590	Gamma BHC - Lindane	58-89-9	3.3		0.85	0.17	1
10590	Chlordane	57-74-9	17	U	17	4.1	1
10590	p,p-DDD	72-54-8	6.2		1.7	0.34	1
10590	p,p-DDE	72-55-9	6.8		1.7	0.34	1
10590	p,p-DDT	50-29-3	11		1.7	0.36	1
10590	Delta BHC	319-86-8	3.3		0.85	0.46	1
10590	Dieldrin	60-57-1	6.4		1.7	0.34	1
10590	Endosulfan I	959-98-8	2.9		0.85	0.22	1
10590	Endosulfan II	33213-65-9	6.5		1.7	0.34	1
10590	Endosulfan Sulfate	1031-07-8	6.2		1.7	0.34	1
10590	Endrin	72-20-8	6.3		1.7	0.34	1
10590	Endrin Aldehyde	7421-93-4	5.0		1.7	0.34	1
10590	Endrin Ketone	53494-70-5	5.9		1.8	0.61	1
10590	Heptachlor	76-44-8	3.1		0.85	0.17	1
10590	Heptachlor Epoxide	1024-57-3	3.4		0.85	0.17	1
10590	Methoxychlor	72-43-5	33		6.8	1.7	1
10590	Mirex	2385-85-5	1.7	U	1.7	0.36	1
10590	Toxaphene	8001-35-2	34	U	34	14	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-513-SA7-SB-0.0-0.5MSD Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7081060
LLI Group # 1394643
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/04/2013 08:30 by VC

Submitted: 06/05/2013 09:20
Reported: 06/21/2013 16:43

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51300 SDG#: PH046-04MSD

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
10592	Aroclor 5432	63496-31-1	33	U	33	10	1
10592	Aroclor 5442	12642-23-8	33	U	33	10	1
10592	Aroclor 5460	11126-42-4	33	U	33	10	1
10592	PCB-1016	12674-11-2	160		17	3.3	1
10592	PCB-1221	11104-28-2	17	U	17	5.2	1
10592	PCB-1232	11141-16-5	17	U	17	4.2	1
10592	PCB-1242	53469-21-9	17	U	17	4.2	1
10592	PCB-1248	12672-29-6	17	U	17	3.3	1
10592	PCB-1254	11097-69-1	44		17	4.5	1
10592	PCB-1260	11096-82-5	140		17	4.0	1
10592	PCB-1262	37324-23-5	17	U	17	3.3	1
10592	PCB-1268	11100-14-4	17	U	17	3.3	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	25	U	25	10	5
12952	EFH (C15-C20)	n.a.	11	J	25	10	5
12952	EFH (C21-C30)	n.a.	200		25	10	5
12952	EFH (C30-C40)	n.a.	420		51	20	5
12952	EFH (C8-C11)	n.a.	25	U	25	10	5
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	12,200		40.7	7.85	1
06944	Antimony	7440-36-0	42.0		4.07	0.509	1
06935	Arsenic	7440-38-2	20.4		4.07	0.336	1
06946	Barium	7440-39-3	280		1.02	0.0336	1
06947	Beryllium	7440-41-7	5.66		1.02	0.0682	1
07914	Boron	7440-42-8	206		10.2	0.845	1
06949	Cadmium	7440-43-9	5.54		1.02	0.0336	1
01650	Calcium	7440-70-2	2,910		20.4	4.09	1
06951	Chromium	7440-47-3	32.8		3.05	0.0896	1
06952	Cobalt	7440-48-4	53.6		1.02	0.0916	1
06953	Copper	7440-50-8	31.8		2.04	0.183	1
01654	Iron	7439-89-6	17,700		40.7	3.87	1
06955	Lead	7439-92-1	23.1		3.05	0.479	1
01656	Lithium	7439-93-2	130		4.1	0.56	1
01657	Magnesium	7439-95-4	4,320		10.2	1.76	1
06958	Manganese	7439-96-5	309		1.02	0.0845	1
06960	Molybdenum	7439-98-7	202		2.04	0.173	1
06961	Nickel	7440-02-0	57.4		2.04	0.112	1
10145	Phosphorus	7723-14-0	501		10.2	0.519	1
01662	Potassium	7440-09-7	4,500		102	13.7	1
01667	Sodium	7440-23-5	1,090		102	17.0	1
06969	Tin	7440-31-5	379		10.2	0.224	1
06970	Titanium	7440-32-6	1,360		1.02	0.173	1
06971	Vanadium	7440-62-2	78.3		1.02	0.112	1
06972	Zinc	7440-66-6	124		4.07	0.204	1
10146	Zirconium	7440-67-7	105		5.09	0.845	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-513-SA7-SB-0.0-0.5MSD Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7081060
LLI Group # 1394643
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/04/2013 08:30 by VC

Submitted: 06/05/2013 09:20
Reported: 06/21/2013 16:43

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51300 SDG#: PH046-04MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 6020A**		**mg/kg**	**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	2.21	0.407	0.102	2
06142	Silver	7440-22-4	10.0	0.204	0.0204	2
06144	Strontium	7440-24-6	16.3	0.407	0.0346	2
06145	Thallium	7440-28-0	0.636	0.204	0.0305	2
	SW-846 7471B		**mg/kg**	**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.178	0.0163	0.0098	1
Wet Chemistry	**EPA 160.3 modified**		**%**	**%**	**%**	
11625	14a Moisture Content by 160.3	n.a.	1.8	0.10	0.10	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-513-SA7-SB-0.0-0.5MSD Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7081060
LLI Group # 1394643
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/04/2013 08:30 by VC

Submitted: 06/05/2013 09:20
Reported: 06/21/2013 16:43

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51300 SDG#: PH046-04MSD

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	19.3		1.00	0.0462	1
11031	12378-PeCDD	40321-76-4	101	B	5.01	0.0555	1
11031	123478-HxCDD	39227-28-6	106	B	5.01	0.0540	1
11031	123678-HxCDD	57653-85-7	105		5.01	0.0573	1
11031	123789-HxCDD	19408-74-3	106	B	5.01	0.0521	1
11031	1234678-HpCDD	35822-46-9	149	B	5.01	0.0573	1
11031	OCDD	3268-87-9	646	B	10.0	0.0419	1
11031	2378-TCDF	51207-31-9	20.5	B	1.00	0.0782	1
11031	12378-PeCDF	57117-41-6	104	B	5.01	0.0451	1
11031	23478-PeCDF	57117-31-4	104	B	5.01	0.0411	1
11031	123478-HxCDF	70648-26-9	108	B	5.01	0.0434	1
11031	123678-HxCDF	57117-44-9	103		5.01	0.0424	1
11031	123789-HxCDF	72918-21-9	107	B	5.01	0.0458	1
11031	234678-HxCDF	60851-34-5	104	B	5.01	0.0407	1
11031	1234678-HpCDF	67562-39-4	115	B	5.01	0.0367	1
11031	1234789-HpCDF	55673-89-7	106	B	5.01	0.0405	1
11031	OCDF	39001-02-0	237	B	10.0	0.0375	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	79	25 - 164
13C12-12378-PeCDD	88	25 - 181
13C12-123478-HxCDD	84	32 - 141
13C12-123678-HxCDD	84	28 - 130
13C12-123789-HxCDD	83	28 - 130
13C12-1234678-HpCDD	91	23 - 140
13C12-OCDD	94	17 - 157
13C12-2378-TCDF	75	24 - 169
13C12-12378-PeCDF	85	24 - 185
13C12-23478-PeCDF	89	21 - 178
13C12-123478-HxCDF	86	26 - 152
13C12-123678-HxCDF	87	26 - 123
13C12-234678-HxCDF	87	28 - 136
13C12-123789-HxCDF	87	29 - 147
13C12-1234678-HpCDF	95	28 - 143
13C12-1234789-HpCDF	95	26 - 138
13C12-OCDF	96	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present
S Saturation of detection signal

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-513-SA7-SB-0.0-0.5MSD Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7081060
LLI Group # 1394643
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/04/2013 08:30 by VC

Submitted: 06/05/2013 09:20
Reported: 06/21/2013 16:43

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51300 SDG#: PH046-04MSD

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13158SLB026	06/13/2013 05:09	Mark A Clark	10
10811	BNA Soil Microwave SIM	SW-846 3546	1	13158SLB026	06/07/2013 17:40	Sally L Appleyard	1
10590	20a Pesticides by EPA 8081B	SW-846 8081B	1	131620099A	06/20/2013 20:29	Jamie L Brillhart	1
10592	19a PCBs and PCTs 8082A	SW-846 8082A	1	131580010A	06/10/2013 11:24	Monica M Souders	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	131580010A	06/08/2013 01:30	Karen L Beyer	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	131620099A	06/11/2013 19:00	Sally L Appleyard	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	131580013A	06/11/2013 01:20	Heather E Williams	5
12959	EFH soil ext.(microwave)	SW-846 3546	1	131580013A	06/09/2013 08:00	Joseph S Feister	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13168006	06/19/2013 17:13	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	2	13168006	06/17/2013 12:00	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010C	1	131600637001	06/11/2013 17:13	John P Hook	1
06944	Antimony	SW-846 6010C	1	131600637001	06/11/2013 17:13	John P Hook	1
06935	Arsenic	SW-846 6010C	1	131600637001	06/11/2013 17:13	John P Hook	1
06946	Barium	SW-846 6010C	1	131600637001	06/11/2013 17:13	John P Hook	1
06947	Beryllium	SW-846 6010C	1	131600637001	06/11/2013 17:13	John P Hook	1
07914	Boron	SW-846 6010C	1	131600637001	06/11/2013 17:13	John P Hook	1
06949	Cadmium	SW-846 6010C	1	131600637001	06/11/2013 17:13	John P Hook	1
01650	Calcium	SW-846 6010C	1	131600637001	06/11/2013 17:13	John P Hook	1
06951	Chromium	SW-846 6010C	1	131600637001	06/11/2013 17:13	John P Hook	1
06952	Cobalt	SW-846 6010C	1	131600637001	06/11/2013 17:13	John P Hook	1
06953	Copper	SW-846 6010C	1	131600637001	06/11/2013 17:13	John P Hook	1
01654	Iron	SW-846 6010C	1	131600637001	06/11/2013 17:13	John P Hook	1
06955	Lead	SW-846 6010C	1	131600637001	06/11/2013 17:13	John P Hook	1
01656	Lithium	SW-846 6010C	1	131600637001	06/11/2013 17:13	John P Hook	1
01657	Magnesium	SW-846 6010C	1	131600637001	06/11/2013 17:13	John P Hook	1
06958	Manganese	SW-846 6010C	1	131600637001	06/11/2013 17:13	John P Hook	1
06960	Molybdenum	SW-846 6010C	1	131600637001	06/11/2013 17:13	John P Hook	1
06961	Nickel	SW-846 6010C	1	131600637001	06/11/2013 17:13	John P Hook	1
10145	Phosphorus	SW-846 6010C	1	131600637001	06/11/2013 17:13	John P Hook	1
01662	Potassium	SW-846 6010C	1	131600637001	06/11/2013 17:13	John P Hook	1
01667	Sodium	SW-846 6010C	1	131600637001	06/11/2013 17:13	John P Hook	1
06969	Tin	SW-846 6010C	1	131600637001	06/11/2013 17:13	John P Hook	1
06970	Titanium	SW-846 6010C	1	131600637001	06/11/2013 17:13	John P Hook	1
06971	Vanadium	SW-846 6010C	1	131600637001	06/11/2013 17:13	John P Hook	1
06972	Zinc	SW-846 6010C	1	131600637001	06/11/2013 17:13	John P Hook	1
10146	Zirconium	SW-846 6010C	1	131600637001	06/11/2013 17:13	John P Hook	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-513-SA7-SB-0.0-0.5MSD Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7081060
LLI Group # 1394643
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/04/2013 08:30 by VC

Submitted: 06/05/2013 09:20
Reported: 06/21/2013 16:43

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51300 SDG#: PH046-04MSD

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06141	Selenium	SW-846 6020A	1	131600637001B	06/11/2013 18:13	David K Beck	2
06142	Silver	SW-846 6020A	1	131600637001A	06/11/2013 18:13	David K Beck	2
06144	Strontium	SW-846 6020A	1	131600637001A	06/11/2013 18:13	David K Beck	2
06145	Thallium	SW-846 6020A	1	131600637001A	06/11/2013 18:13	David K Beck	2
00159	3a Mercury 7471A	SW-846 7471B	1	131600638002	06/11/2013 19:20	Katlin N Cataldi	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	131600637001	06/10/2013 23:43	Annamaria Stipkovits	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	131600638002	06/11/2013 04:00	Annamaria Stipkovits	1
11625	14a Moisture Content by 160.3	EPA 160.3 modified	2	13163162401A	06/12/2013 20:12	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-513-SA7-SB-0.0-0.5DUP Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7081061
LLI Group # 1394643
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/04/2013 08:30 by VC

Submitted: 06/05/2013 09:20
Reported: 06/21/2013 16:43

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51300 SDG#: PH046-04DUP

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	10,100		40.7	7.85	1
06944	Antimony	7440-36-0	4.07	U	4.07	0.509	1
06935	Arsenic	7440-38-2	4.70		4.07	0.336	1
06946	Barium	7440-39-3	65.6		1.02	0.0336	1
06947	Beryllium	7440-41-7	0.451	J	1.02	0.0682	1
07914	Boron	7440-42-8	6.26	J	10.2	0.845	1
06949	Cadmium	7440-43-9	0.535	J	1.02	0.0336	1
01650	Calcium	7440-70-2	2,330		20.4	4.09	1
06951	Chromium	7440-47-3	13.3		3.05	0.0896	1
06952	Cobalt	7440-48-4	3.96		1.02	0.0916	1
06953	Copper	7440-50-8	5.61		2.04	0.183	1
01654	Iron	7439-89-6	17,800		40.7	3.87	1
06955	Lead	7439-92-1	8.76		3.05	0.479	1
01656	Lithium	7439-93-2	24.8		4.1	0.56	1
01657	Magnesium	7439-95-4	3,950		10.2	1.76	1
06958	Manganese	7439-96-5	261		1.02	0.0845	1
06960	Molybdenum	7439-98-7	0.392	J	2.04	0.173	1
06961	Nickel	7440-02-0	8.40		2.04	0.112	1
10145	Phosphorus	7723-14-0	390		10.2	0.519	1
01662	Potassium	7440-09-7	3,240		102	13.7	1
01667	Sodium	7440-23-5	69.2	J	102	17.0	1
06969	Tin	7440-31-5	2.73	J	10.2	0.224	1
06970	Titanium	7440-32-6	1,060		1.02	0.173	1
06971	Vanadium	7440-62-2	28.5		1.02	0.112	1
06972	Zinc	7440-66-6	72.5		4.07	0.204	1
10146	Zirconium	7440-67-7	3.02	J	5.09	0.845	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.407	U	0.407	0.102	2
06142	Silver	7440-22-4	0.204	U	0.204	0.0204	2
06144	Strontium	7440-24-6	8.42		0.407	0.0346	2
06145	Thallium	7440-28-0	0.234		0.204	0.0305	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0143	J	0.0164	0.0098	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045D	n.a.	6.71		0.0100	0.0100	1
	The pH was measured in water at 21.4 C.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11625	14a Moisture Content by 160.3	n.a.	1.8		0.10	0.10	1
11626	14a Moisture Content by 160.3	n.a.	1.9		0.10	0.10	1
	The duplicate moisture value is provided to assess the precision of the moisture test. For comparability purposes, the initial moisture determination is the value used to perform dry weight calculations.						

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-513-SA7-SB-0.0-0.5DUP Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7081061
LLI Group # 1394643
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/04/2013 08:30 by VC

Submitted: 06/05/2013 09:20
Reported: 06/21/2013 16:43

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51300 SDG#: PH046-04DUP

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01643	Aluminum	SW-846 6010C	1	131600637001	06/11/2013 17:05	John P Hook	1
06944	Antimony	SW-846 6010C	1	131600637001	06/11/2013 17:05	John P Hook	1
06935	Arsenic	SW-846 6010C	1	131600637001	06/11/2013 17:05	John P Hook	1
06946	Barium	SW-846 6010C	1	131600637001	06/11/2013 17:05	John P Hook	1
06947	Beryllium	SW-846 6010C	1	131600637001	06/11/2013 17:05	John P Hook	1
07914	Boron	SW-846 6010C	1	131600637001	06/11/2013 17:05	John P Hook	1
06949	Cadmium	SW-846 6010C	1	131600637001	06/11/2013 17:05	John P Hook	1
01650	Calcium	SW-846 6010C	1	131600637001	06/11/2013 17:05	John P Hook	1
06951	Chromium	SW-846 6010C	1	131600637001	06/11/2013 17:05	John P Hook	1
06952	Cobalt	SW-846 6010C	1	131600637001	06/11/2013 17:05	John P Hook	1
06953	Copper	SW-846 6010C	1	131600637001	06/11/2013 17:05	John P Hook	1
01654	Iron	SW-846 6010C	1	131600637001	06/11/2013 17:05	John P Hook	1
06955	Lead	SW-846 6010C	1	131600637001	06/11/2013 17:05	John P Hook	1
01656	Lithium	SW-846 6010C	1	131600637001	06/11/2013 17:05	John P Hook	1
01657	Magnesium	SW-846 6010C	1	131600637001	06/11/2013 17:05	John P Hook	1
06958	Manganese	SW-846 6010C	1	131600637001	06/11/2013 17:05	John P Hook	1
06960	Molybdenum	SW-846 6010C	1	131600637001	06/11/2013 17:05	John P Hook	1
06961	Nickel	SW-846 6010C	1	131600637001	06/11/2013 17:05	John P Hook	1
10145	Phosphorus	SW-846 6010C	1	131600637001	06/11/2013 17:05	John P Hook	1
01662	Potassium	SW-846 6010C	1	131600637001	06/11/2013 17:05	John P Hook	1
01667	Sodium	SW-846 6010C	1	131600637001	06/11/2013 17:05	John P Hook	1
06969	Tin	SW-846 6010C	1	131600637001	06/11/2013 17:05	John P Hook	1
06970	Titanium	SW-846 6010C	1	131600637001	06/11/2013 17:05	John P Hook	1
06971	Vanadium	SW-846 6010C	1	131600637001	06/11/2013 17:05	John P Hook	1
06972	Zinc	SW-846 6010C	1	131600637001	06/11/2013 17:05	John P Hook	1
10146	Zirconium	SW-846 6010C	1	131600637001	06/11/2013 17:05	John P Hook	1
06141	Selenium	SW-846 6020A	1	131600637001B	06/11/2013 18:09	David K Beck	2
06142	Silver	SW-846 6020A	1	131600637001A	06/11/2013 18:09	David K Beck	2
06144	Strontium	SW-846 6020A	1	131600637001A	06/11/2013 18:09	David K Beck	2
06145	Thallium	SW-846 6020A	1	131600637001A	06/11/2013 18:09	David K Beck	2
00159	3a Mercury 7471A	SW-846 7471B	1	131600638002	06/11/2013 19:16	Katlin N Cataldi	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	131600637001	06/10/2013 23:43	Annamaria Stipkovits	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	131600638002	06/11/2013 04:00	Annamaria Stipkovits	1
00394	15a pH by 9045D	SW-846 9045D modified	1	13156039401A	06/05/2013 21:00	Luz M Groff	1
11625	14a Moisture Content by 160.3	EPA 160.3 modified	2	13163162401A	06/12/2013 20:12	Scott W Freisher	1
11626	14a Moisture Content by 160.3	EPA 160.3 modified	2	13163162401A	06/12/2013 20:12	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-913-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7081062
LLI Group # 1394643
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/04/2013 08:45 by VC

Submitted: 06/05/2013 09:20
Reported: 06/21/2013 16:43

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

91300 SDG#: PH046-05

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	17	U	17	6.8	10
12969	Acenaphthylene	208-96-8	17	U	17	3.4	10
12969	Anthracene	120-12-7	17	U	17	3.4	10
12969	Benzo(a)anthracene	56-55-3	17	U	17	6.8	10
12969	Benzo(a)pyrene	50-32-8	17	U	17	6.8	10
12969	Benzo(b)fluoranthene	205-99-2	13	J	17	6.8	10
12969	Benzo(e)pyrene	192-97-2	170	U	170	34	10
12969	Benzo(g,h,i)perylene	191-24-2	17	U	17	6.8	10
12969	Benzo(k)fluoranthene	207-08-9	17	U	17	6.8	10
12969	Butylbenzylphthalate	85-68-7	180	U	180	61	10
12969	Di-n-butylphthalate	84-74-2	180	U	180	61	10
12969	Chrysene	218-01-9	20		17	3.4	10
12969	Dibenz(a,h)anthracene	53-70-3	17	U	17	6.8	10
12969	Diethylphthalate	84-66-2	180	U	180	61	10
12969	Dimethylphthalate	131-11-3	180	U	180	61	10
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	180	U	180	61	10
12969	Fluoranthene	206-44-0	8.3	J	17	6.8	10
12969	Fluorene	86-73-7	17	U	17	6.8	10
12969	Indeno(1,2,3-cd)pyrene	193-39-5	17	U	17	6.8	10
12969	1-Methylnaphthalene	90-12-0	17	U	17	6.8	10
12969	2-Methylnaphthalene	91-57-6	17	U	17	6.8	10
12969	Naphthalene	91-20-3	17	U	17	6.8	10
12969	N-Nitrosodimethylamine	62-75-9	17	U	17	6.8	10
12969	Di-n-octylphthalate	117-84-0	180	U	180	61	10
12969	Phenanthrene	85-01-8	17	U	17	6.8	10
12969	Pyrene	129-00-0	8.4	J	17	6.8	10

Reporting limits were raised due to interference from the sample matrix.

Pesticides/PCBs	**SW-846 8081B**		**ug/kg**		**ug/kg**	**ug/kg**	
10590	Aldrin	309-00-2	0.84	U	0.84	0.17	1
10590	Alpha BHC	319-84-6	0.84	U	0.84	0.17	1
10590	Beta BHC	319-85-7	1.9	U	1.9	0.97	1
10590	Gamma BHC - Lindane	58-89-9	0.84	U	0.84	0.17	1
10590	Chlordane	57-74-9	17	U	17	4.1	1
10590	p,p-DDD	72-54-8	1.7	U	1.7	0.34	1
10590	p,p-DDE	72-55-9	1.8	U	1.8	1.8	1
10590	p,p-DDT	50-29-3	6.3		1.7	0.36	1
10590	Delta BHC	319-86-8	0.84	U	0.84	0.46	1
10590	Dieldrin	60-57-1	1.7	U	1.7	0.34	1
10590	Endosulfan I	959-98-8	0.84	U	0.84	0.22	1
10590	Endosulfan II	33213-65-9	1.7	U	1.7	0.34	1
10590	Endosulfan Sulfate	1031-07-8	1.7	U	1.7	0.34	1
10590	Endrin	72-20-8	1.7	U	1.7	0.34	1
10590	Endrin Aldehyde	7421-93-4	1.7	U	1.7	0.34	1
10590	Endrin Ketone	53494-70-5	1.8	U	1.8	0.61	1
10590	Heptachlor	76-44-8	0.84	U	0.84	0.17	1
10590	Heptachlor Epoxide	1024-57-3	0.84	U	0.84	0.43	1
10590	Methoxychlor	72-43-5	6.8	U	6.8	1.7	1
10590	Mirex	2385-85-5	0.89	J	1.7	0.36	1
10590	Toxaphene	8001-35-2	34	U	34	14	1

Reporting limits were raised due to interference from the sample matrix.

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-913-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7081062
LLI Group # 1394643
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/04/2013 08:45 by VC

Submitted: 06/05/2013 09:20
Reported: 06/21/2013 16:43

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

91300 SDG#: PH046-05

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
10592	Aroclor 5432	63496-31-1	34	U	34	10	1
10592	Aroclor 5442	12642-23-8	34	U	34	10	1
10592	Aroclor 5460	11126-42-4	17	J	34	10	1
10592	PCB-1016	12674-11-2	17	U	17	3.4	1
10592	PCB-1221	11104-28-2	17	U	17	5.2	1
10592	PCB-1232	11141-16-5	17	U	17	4.2	1
10592	PCB-1242	53469-21-9	17	U	17	4.2	1
10592	PCB-1248	12672-29-6	17	U	17	3.4	1
10592	PCB-1254	11097-69-1	13	J	17	4.5	1
10592	PCB-1260	11096-82-5	17	U	17	4.0	1
10592	PCB-1262	37324-23-5	17	U	17	3.4	1
10592	PCB-1268	11100-14-4	17	U	17	3.4	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	50	U	50	20	10
12952	EFH (C15-C20)	n.a.	50	U	50	20	10
12952	EFH (C21-C30)	n.a.	160		50	20	10
12952	EFH (C30-C40)	n.a.	350		100	40	10
12952	EFH (C8-C11)	n.a.	50	U	50	20	10
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	9,640		40.2	7.75	1
06944	Antimony	7440-36-0	0.637	J	4.02	0.503	1
06935	Arsenic	7440-38-2	4.31		4.02	0.332	1
06946	Barium	7440-39-3	65.4		1.01	0.0332	1
06947	Beryllium	7440-41-7	0.453	J	1.01	0.0673	1
07914	Boron	7440-42-8	6.30	J	10.1	0.834	1
06949	Cadmium	7440-43-9	0.511	J	1.01	0.0332	1
01650	Calcium	7440-70-2	2,620		20.1	4.04	1
06951	Chromium	7440-47-3	12.4		3.02	0.0885	1
06952	Cobalt	7440-48-4	4.18		1.01	0.0905	1
06953	Copper	7440-50-8	5.92		2.01	0.181	1
01654	Iron	7439-89-6	16,700		40.2	3.82	1
06955	Lead	7439-92-1	9.75		3.02	0.472	1
01656	Lithium	7439-93-2	22.4		4.0	0.55	1
01657	Magnesium	7439-95-4	3,720		10.1	1.74	1
06958	Manganese	7439-96-5	255		1.01	0.0834	1
06960	Molybdenum	7439-98-7	0.282	J	2.01	0.171	1
06961	Nickel	7440-02-0	7.63		2.01	0.111	1
10145	Phosphorus	7723-14-0	389		10.1	0.513	1
01662	Potassium	7440-09-7	3,160		101	13.6	1
01667	Sodium	7440-23-5	63.2	J	101	16.8	1
06969	Tin	7440-31-5	2.90	J	10.1	0.221	1
06970	Titanium	7440-32-6	1,030		1.01	0.171	1
06971	Vanadium	7440-62-2	26.7		1.01	0.111	1
06972	Zinc	7440-66-6	76.4		4.02	0.201	1
10146	Zirconium	7440-67-7	2.48	J	5.03	0.834	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-913-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7081062
LLI Group # 1394643
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/04/2013 08:45 by VC

Submitted: 06/05/2013 09:20
Reported: 06/21/2013 16:43

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

91300 SDG#: PH046-05

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 6020A**		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.402	U	0.402	0.101	2
06142	Silver	7440-22-4	0.201	U	0.201	0.0201	2
06144	Strontium	7440-24-6	9.91		0.402	0.0342	2
06145	Thallium	7440-28-0	0.209		0.201	0.0302	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0267		0.0167	0.0100	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045D	n.a.	6.72		0.0100	0.0100	1
	The pH was measured in water at 21.6 C.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	1.5		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-913-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7081062
LLI Group # 1394643
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/04/2013 08:45 by VC

Submitted: 06/05/2013 09:20
Reported: 06/21/2013 16:43

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

91300 SDG#: PH046-05

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0389	J	0.992	0.0347	1
11031	12378-PeCDD	40321-76-4	0.315	JBQ	4.96	0.0482	1
11031	123478-HxCDD	39227-28-6	0.527	JB	4.96	0.0443	1
11031	123678-HxCDD	57653-85-7	1.49	J	4.96	0.0483	1
11031	123789-HxCDD	19408-74-3	0.998	JB	4.96	0.0434	1
11031	1234678-HpCDD	35822-46-9	40.7	B	4.96	0.0470	1
11031	OCDD	3268-87-9	396	B	9.92	0.0392	1
11031	2378-TCDF	51207-31-9	0.457	JB	0.992	0.0692	1
11031	12378-PeCDF	57117-41-6	0.646	JB	4.96	0.0435	1
11031	23478-PeCDF	57117-31-4	0.691	JB	4.96	0.0384	1
11031	123478-HxCDF	70648-26-9	0.864	JB	4.96	0.0332	1
11031	123678-HxCDF	57117-44-9	0.706	J	4.96	0.0330	1
11031	123789-HxCDF	72918-21-9	0.332	JB	4.96	0.0351	1
11031	234678-HxCDF	60851-34-5	0.624	JB	4.96	0.0318	1
11031	1234678-HpCDF	67562-39-4	8.72	B	4.96	0.0317	1
11031	1234789-HpCDF	55673-89-7	0.775	JB	4.96	0.0357	1
11031	OCDF	39001-02-0	28.3	B	9.92	0.0302	1
Toxic Equivalents	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	1.49				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	78	25 - 164
13C12-12378-PeCDD	91	25 - 181
13C12-123478-HxCDD	84	32 - 141
13C12-123678-HxCDD	84	28 - 130
13C12-123789-HxCDD	84	28 - 130
13C12-1234678-HpCDD	95	23 - 140
13C12-OCDD	98	17 - 157
13C12-2378-TCDF	74	24 - 169
13C12-12378-PeCDF	86	24 - 185
13C12-23478-PeCDF	90	21 - 178
13C12-123478-HxCDF	86	26 - 152
13C12-123678-HxCDF	88	26 - 123
13C12-234678-HxCDF	87	28 - 136
13C12-123789-HxCDF	89	29 - 147
13C12-1234678-HpCDF	99	28 - 143
13C12-1234789-HpCDF	99	26 - 138
13C12-OCDF	101	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration

*=This limit was used in the evaluation of the final result

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Analysis Report

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Sample Description: SL-913-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7081062
LLI Group # 1394643
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/04/2013 08:45 by VC

Submitted: 06/05/2013 09:20
Reported: 06/21/2013 16:43

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

91300 SDG#: PH046-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-913-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7081062
LLI Group # 1394643
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/04/2013 08:45 by VC

Submitted: 06/05/2013 09:20
Reported: 06/21/2013 16:43

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

91300 SDG#: PH046-05

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13158SLB026	06/13/2013 05:42	Mark A Clark	10
10811	BNA Soil Microwave SIM	SW-846 3546	1	13158SLB026	06/07/2013 17:40	Sally L Appleyard	1
10590	20a Pesticides by EPA 8081B	SW-846 8081B	1	131620099A	06/20/2013 20:44	Jamie L Brillhart	1
10592	19a PCBs and PCTs 8082A	SW-846 8082A	1	131620008A	06/12/2013 13:11	Monica M Souders	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	131620008A	06/11/2013 18:30	Sally L Appleyard	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	131620099A	06/11/2013 19:00	Sally L Appleyard	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	131580013A	06/11/2013 02:02	Heather E Williams	10
12959	EFH soil ext.(microwave)	SW-846 3546	1	131580013A	06/09/2013 08:00	Joseph S Feister	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13168006	06/19/2013 18:10	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	2	13168006	06/17/2013 12:00	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010C	1	131600637001	06/11/2013 17:50	John P Hook	1
06944	Antimony	SW-846 6010C	1	131600637001	06/11/2013 17:50	John P Hook	1
06935	Arsenic	SW-846 6010C	1	131600637001	06/11/2013 17:50	John P Hook	1
06946	Barium	SW-846 6010C	1	131600637001	06/11/2013 17:50	John P Hook	1
06947	Beryllium	SW-846 6010C	1	131600637001	06/11/2013 17:50	John P Hook	1
07914	Boron	SW-846 6010C	1	131600637001	06/11/2013 17:50	John P Hook	1
06949	Cadmium	SW-846 6010C	1	131600637001	06/11/2013 17:50	John P Hook	1
01650	Calcium	SW-846 6010C	1	131600637001	06/11/2013 17:50	John P Hook	1
06951	Chromium	SW-846 6010C	1	131600637001	06/11/2013 17:50	John P Hook	1
06952	Cobalt	SW-846 6010C	1	131600637001	06/11/2013 17:50	John P Hook	1
06953	Copper	SW-846 6010C	1	131600637001	06/11/2013 17:50	John P Hook	1
01654	Iron	SW-846 6010C	1	131600637001	06/11/2013 17:50	John P Hook	1
06955	Lead	SW-846 6010C	1	131600637001	06/11/2013 17:50	John P Hook	1
01656	Lithium	SW-846 6010C	1	131600637001	06/11/2013 17:50	John P Hook	1
01657	Magnesium	SW-846 6010C	1	131600637001	06/11/2013 17:50	John P Hook	1
06958	Manganese	SW-846 6010C	1	131600637001	06/11/2013 17:50	John P Hook	1
06960	Molybdenum	SW-846 6010C	1	131600637001	06/11/2013 17:50	John P Hook	1
06961	Nickel	SW-846 6010C	1	131600637001	06/11/2013 17:50	John P Hook	1
10145	Phosphorus	SW-846 6010C	1	131600637001	06/11/2013 17:50	John P Hook	1
01662	Potassium	SW-846 6010C	1	131600637001	06/11/2013 17:50	John P Hook	1
01667	Sodium	SW-846 6010C	1	131600637001	06/11/2013 17:50	John P Hook	1
06969	Tin	SW-846 6010C	1	131600637001	06/11/2013 17:50	John P Hook	1
06970	Titanium	SW-846 6010C	1	131600637001	06/11/2013 17:50	John P Hook	1
06971	Vanadium	SW-846 6010C	1	131600637001	06/11/2013 17:50	John P Hook	1
06972	Zinc	SW-846 6010C	1	131600637001	06/11/2013 17:50	John P Hook	1
10146	Zirconium	SW-846 6010C	1	131600637001	06/11/2013 17:50	John P Hook	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-913-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7081062
LLI Group # 1394643
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/04/2013 08:45 by VC

Submitted: 06/05/2013 09:20
Reported: 06/21/2013 16:43

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

91300 SDG#: PH046-05

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06141	Selenium	SW-846 6020A	1	131600637001B	06/11/2013 18:34	David K Beck	2
06142	Silver	SW-846 6020A	1	131600637001A	06/11/2013 18:34	David K Beck	2
06144	Strontium	SW-846 6020A	1	131600637001A	06/11/2013 18:34	David K Beck	2
06145	Thallium	SW-846 6020A	1	131600637001A	06/11/2013 18:34	David K Beck	2
00159	3a Mercury 7471A	SW-846 7471B	1	131600638002	06/11/2013 19:22	Katlin N Cataldi	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	131600637001	06/10/2013 23:43	Annamaria Stipkovits	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	131600638002	06/11/2013 04:00	Annamaria Stipkovits	1
00394	15a pH by 9045D	SW-846 9045D modified	1	13156039401A	06/05/2013 21:00	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13162162401A	06/11/2013 23:07	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-516-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7081063
LLI Group # 1394643
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/04/2013 09:55 by VC

Submitted: 06/05/2013 09:20
Reported: 06/21/2013 16:43

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51600 SDG#: PH046-06

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.69	1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.35	1
12969	Anthracene	120-12-7	1.7	U	1.7	0.35	1
12969	Benzo(a)anthracene	56-55-3	1.7	U	1.7	0.69	1
12969	Benzo(a)pyrene	50-32-8	1.7	U	1.7	0.69	1
12969	Benzo(b)fluoranthene	205-99-2	1.7	U	1.7	0.69	1
12969	Benzo(e)pyrene	192-97-2	18	U	18	3.5	1
12969	Benzo(g,h,i)perylene	191-24-2	1.7	U	1.7	0.69	1
12969	Benzo(k)fluoranthene	207-08-9	1.7	U	1.7	0.69	1
12969	Butylbenzylphthalate	85-68-7	19	U	19	6.2	1
12969	Di-n-butylphthalate	84-74-2	19	U	19	6.2	1
12969	Chrysene	218-01-9	1.7	U	1.7	0.35	1
12969	Dibenz(a,h)anthracene	53-70-3	1.7	U	1.7	0.69	1
12969	Diethylphthalate	84-66-2	19	U	19	6.2	1
12969	Dimethylphthalate	131-11-3	19	U	19	6.2	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	19	U	19	6.2	1
12969	Fluoranthene	206-44-0	1.7	U	1.7	0.69	1
12969	Fluorene	86-73-7	1.7	U	1.7	0.69	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.7	U	1.7	0.69	1
12969	1-Methylnaphthalene	90-12-0	1.7	U	1.7	0.69	1
12969	2-Methylnaphthalene	91-57-6	1.7	U	1.7	0.69	1
12969	Naphthalene	91-20-3	1.7	U	1.7	0.69	1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.69	1
12969	Di-n-octylphthalate	117-84-0	19	U	19	6.2	1
12969	Phenanthrene	85-01-8	1.7	U	1.7	0.69	1
12969	Pyrene	129-00-0	1.7	U	1.7	0.69	1
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
10592	Aroclor 5432	63496-31-1	34	U	34	10	1
10592	Aroclor 5442	12642-23-8	34	U	34	10	1
10592	Aroclor 5460	11126-42-4	34	U	34	10	1
10592	PCB-1016	12674-11-2	18	U	18	3.4	1
10592	PCB-1221	11104-28-2	18	U	18	5.3	1
10592	PCB-1232	11141-16-5	18	U	18	4.3	1
10592	PCB-1242	53469-21-9	18	U	18	4.3	1
10592	PCB-1248	12672-29-6	18	U	18	3.4	1
10592	PCB-1254	11097-69-1	18	U	18	4.6	1
10592	PCB-1260	11096-82-5	18	U	18	4.1	1
10592	PCB-1262	37324-23-5	18	U	18	3.4	1
10592	PCB-1268	11100-14-4	18	U	18	3.4	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.1	U	5.1	2.1	1
12952	EFH (C15-C20)	n.a.	5.1	U	5.1	2.1	1
12952	EFH (C21-C30)	n.a.	3.4	J	5.1	2.1	1
12952	EFH (C30-C40)	n.a.	4.8	J	10	4.1	1
12952	EFH (C8-C11)	n.a.	5.1	U	5.1	2.1	1
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-516-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7081063
LLI Group # 1394643
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/04/2013 09:55 by VC

Submitted: 06/05/2013 09:20
Reported: 06/21/2013 16:43

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51600 SDG#: PH046-06

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	12,400		40.8	7.87	1
06944	Antimony	7440-36-0	4.08	U	4.08	0.510	1
06935	Arsenic	7440-38-2	5.10		4.08	0.337	1
06946	Barium	7440-39-3	72.9		1.02	0.0337	1
06947	Beryllium	7440-41-7	0.538	J	1.02	0.0684	1
07914	Boron	7440-42-8	6.24	J	10.2	0.847	1
06949	Cadmium	7440-43-9	0.518	J	1.02	0.0337	1
01650	Calcium	7440-70-2	4,380		20.4	4.10	1
06951	Chromium	7440-47-3	19.4		3.06	0.0898	1
06952	Cobalt	7440-48-4	5.41		1.02	0.0918	1
06953	Copper	7440-50-8	6.89		2.04	0.184	1
01654	Iron	7439-89-6	20,900		40.8	3.88	1
06955	Lead	7439-92-1	4.80		3.06	0.479	1
01656	Lithium	7439-93-2	28.3		4.1	0.56	1
01657	Magnesium	7439-95-4	5,790		10.2	1.76	1
06958	Manganese	7439-96-5	308		1.02	0.0847	1
06960	Molybdenum	7439-98-7	0.331	J	2.04	0.173	1
06961	Nickel	7440-02-0	10.5		2.04	0.112	1
10145	Phosphorus	7723-14-0	410		10.2	0.520	1
01662	Potassium	7440-09-7	2,930		102	13.8	1
01667	Sodium	7440-23-5	319		102	17.0	1
06969	Tin	7440-31-5	2.93	J	10.2	0.224	1
06970	Titanium	7440-32-6	1,270		1.02	0.173	1
06971	Vanadium	7440-62-2	39.3		1.02	0.112	1
06972	Zinc	7440-66-6	58.8		4.08	0.204	1
10146	Zirconium	7440-67-7	2.72	J	5.10	0.847	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.108	J	0.408	0.102	2
06142	Silver	7440-22-4	0.0368	J	0.204	0.0204	2
06144	Strontium	7440-24-6	15.0		0.408	0.0347	2
06145	Thallium	7440-28-0	0.304		0.204	0.0306	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0108	J	0.0170	0.0102	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045D	n.a.	8.14		0.0100	0.0100	1
	The pH was measured in water at 22.4 C.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	3.9		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-516-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7081063
LLI Group # 1394643
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/04/2013 09:55 by VC

Submitted: 06/05/2013 09:20
Reported: 06/21/2013 16:43

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51600 SDG#: PH046-06

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0468	J	0.993	0.0310	1
11031	12378-PeCDD	40321-76-4	4.96	U	4.96	0.0365	1
11031	123478-HxCDD	39227-28-6	0.0727	JB	4.96	0.0238	1
11031	123678-HxCDD	57653-85-7	0.0848	J	4.96	0.0251	1
11031	123789-HxCDD	19408-74-3	0.0883	JBQ	4.96	0.0235	1
11031	1234678-HpCDD	35822-46-9	0.123	JBQ	4.96	0.0238	1
11031	OCDD	3268-87-9	0.498	JB	9.93	0.0281	1
11031	2378-TCDF	51207-31-9	0.0260	JBQ	0.993	0.0223	1
11031	12378-PeCDF	57117-41-6	0.111	JB	4.96	0.0180	1
11031	23478-PeCDF	57117-31-4	0.136	JB	4.96	0.0186	1
11031	123478-HxCDF	70648-26-9	0.0778	JB	4.96	0.0136	1
11031	123678-HxCDF	57117-44-9	0.0854	JQ	4.96	0.0126	1
11031	123789-HxCDF	72918-21-9	0.123	JBQ	4.96	0.0159	1
11031	234678-HxCDF	60851-34-5	0.0743	JB	4.96	0.0129	1
11031	1234678-HpCDF	67562-39-4	0.0727	JBQ	4.96	0.0469	1
11031	1234789-HpCDF	55673-89-7	0.165	JBQ	4.96	0.0779	1
11031	OCDF	39001-02-0	0.210	JB	9.93	0.0387	1
Toxic Equivalents	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.122				1

Labeled Compounds	**%Rec**	**Windows**
13C12-2378-TCDD	72	25 - 164
13C12-12378-PeCDD	80	25 - 181
13C12-123478-HxCDD	82	32 - 141
13C12-123678-HxCDD	83	28 - 130
13C12-123789-HxCDD	82	28 - 130
13C12-1234678-HpCDD	91	23 - 140
13C12-OCDD	95	17 - 157
13C12-2378-TCDF	66	24 - 169
13C12-12378-PeCDF	81	24 - 185
13C12-23478-PeCDF	76	21 - 178
13C12-123478-HxCDF	80	26 - 152
13C12-123678-HxCDF	88	26 - 123
13C12-234678-HxCDF	82	28 - 136
13C12-123789-HxCDF	77	29 - 147
13C12-1234678-HpCDF	113	28 - 143
13C12-1234789-HpCDF	78	26 - 138
13C12-OCDF	73	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-516-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7081063
LLI Group # 1394643
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/04/2013 09:55 by VC

Submitted: 06/05/2013 09:20
Reported: 06/21/2013 16:43

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51600 SDG#: PH046-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-516-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7081063
LLI Group # 1394643
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/04/2013 09:55 by VC

Submitted: 06/05/2013 09:20
Reported: 06/21/2013 16:43

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51600 SDG#: PH046-06

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13158SLB026	06/13/2013	06:15	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	13158SLB026	06/07/2013	17:40	Sally L Appleyard	1
10592	19a PCBs and PCTs 8082A	SW-846 8082A	1	131620008A	06/12/2013	13:29	Monica M Souders	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	131620008A	06/11/2013	18:30	Sally L Appleyard	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	131580013A	06/10/2013	23:36	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	131580013A	06/09/2013	08:00	Joseph S Feister	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13168006	06/19/2013	19:06	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	2	13168006	06/17/2013	12:00	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010C	1	131600637001	06/11/2013	17:54	John P Hook	1
06944	Antimony	SW-846 6010C	1	131600637001	06/11/2013	17:54	John P Hook	1
06935	Arsenic	SW-846 6010C	1	131600637001	06/11/2013	17:54	John P Hook	1
06946	Barium	SW-846 6010C	1	131600637001	06/11/2013	17:54	John P Hook	1
06947	Beryllium	SW-846 6010C	1	131600637001	06/11/2013	17:54	John P Hook	1
07914	Boron	SW-846 6010C	1	131600637001	06/11/2013	17:54	John P Hook	1
06949	Cadmium	SW-846 6010C	1	131600637001	06/11/2013	17:54	John P Hook	1
01650	Calcium	SW-846 6010C	1	131600637001	06/11/2013	17:54	John P Hook	1
06951	Chromium	SW-846 6010C	1	131600637001	06/11/2013	17:54	John P Hook	1
06952	Cobalt	SW-846 6010C	1	131600637001	06/11/2013	17:54	John P Hook	1
06953	Copper	SW-846 6010C	1	131600637001	06/11/2013	17:54	John P Hook	1
01654	Iron	SW-846 6010C	1	131600637001	06/11/2013	17:54	John P Hook	1
06955	Lead	SW-846 6010C	1	131600637001	06/11/2013	17:54	John P Hook	1
01656	Lithium	SW-846 6010C	1	131600637001	06/11/2013	17:54	John P Hook	1
01657	Magnesium	SW-846 6010C	1	131600637001	06/11/2013	17:54	John P Hook	1
06958	Manganese	SW-846 6010C	1	131600637001	06/11/2013	17:54	John P Hook	1
06960	Molybdenum	SW-846 6010C	1	131600637001	06/11/2013	17:54	John P Hook	1
06961	Nickel	SW-846 6010C	1	131600637001	06/11/2013	17:54	John P Hook	1
10145	Phosphorus	SW-846 6010C	1	131600637001	06/11/2013	17:54	John P Hook	1
01662	Potassium	SW-846 6010C	1	131600637001	06/11/2013	17:54	John P Hook	1
01667	Sodium	SW-846 6010C	1	131600637001	06/11/2013	17:54	John P Hook	1
06969	Tin	SW-846 6010C	1	131600637001	06/11/2013	17:54	John P Hook	1
06970	Titanium	SW-846 6010C	1	131600637001	06/11/2013	17:54	John P Hook	1
06971	Vanadium	SW-846 6010C	1	131600637001	06/11/2013	17:54	John P Hook	1
06972	Zinc	SW-846 6010C	1	131600637001	06/11/2013	17:54	John P Hook	1
10146	Zirconium	SW-846 6010C	1	131600637001	06/11/2013	17:54	John P Hook	1
06141	Selenium	SW-846 6020A	1	131600637001B	06/11/2013	18:37	David K Beck	2
06142	Silver	SW-846 6020A	1	131600637001A	06/11/2013	18:37	David K Beck	2
06144	Strontium	SW-846 6020A	1	131600637001A	06/11/2013	18:37	David K Beck	2
06145	Thallium	SW-846 6020A	1	131600637001A	06/11/2013	18:37	David K Beck	2

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-516-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7081063
LLI Group # 1394643
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/04/2013 09:55 by VC

Submitted: 06/05/2013 09:20
Reported: 06/21/2013 16:43

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51600 SDG#: PH046-06

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00159	3a Mercury 7471A	SW-846 7471B	1	131600638002	06/11/2013 19:24	Katlin N Cataldi	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	131600637001	06/10/2013 23:43	Annamaria Stipkovits	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	131600638002	06/11/2013 04:00	Annamaria Stipkovits	1
00394	15a pH by 9045D	SW-846 9045D modified	1	13156039401A	06/05/2013 21:00	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13162162401A	06/11/2013 23:07	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-524-SA7-SB-1.0-2.0 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7081064
LLI Group # 1394643
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/04/2013 13:20 by VC

Submitted: 06/05/2013 09:20
Reported: 06/21/2013 16:43

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

52410 SDG#: PH046-07BKG

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.8	U	1.8	0.72	1
12969	Acenaphthylene	208-96-8	1.8	U	1.8	0.36	1
12969	Anthracene	120-12-7	1.8	U	1.8	0.36	1
12969	Benzo(a)anthracene	56-55-3	1.5	J	1.8	0.72	1
12969	Benzo(a)pyrene	50-32-8	1.5	J	1.8	0.72	1
12969	Benzo(b)fluoranthene	205-99-2	2.5		1.8	0.72	1
12969	Benzo(e)pyrene	192-97-2	6.5	J	18	3.6	1
12969	Benzo(g,h,i)perylene	191-24-2	1.3	J	1.8	0.72	1
12969	Benzo(k)fluoranthene	207-08-9	1.8	U	1.8	0.72	1
12969	Butylbenzylphthalate	85-68-7	19	U	19	6.5	1
12969	Di-n-butylphthalate	84-74-2	19	U	19	6.5	1
12969	Chrysene	218-01-9	7.2		1.8	0.36	1
12969	Dibenz(a,h)anthracene	53-70-3	0.75	J	1.8	0.72	1
12969	Diethylphthalate	84-66-2	19	U	19	6.5	1
12969	Dimethylphthalate	131-11-3	19	U	19	6.5	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	19	U	19	6.5	1
12969	Fluoranthene	206-44-0	0.96	J	1.8	0.72	1
12969	Fluorene	86-73-7	1.8	U	1.8	0.72	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.8	U	1.8	0.72	1
12969	1-Methylnaphthalene	90-12-0	1.8	U	1.8	0.72	1
12969	2-Methylnaphthalene	91-57-6	1.8	U	1.8	0.72	1
12969	Naphthalene	91-20-3	1.8	U	1.8	0.72	1
12969	N-Nitrosodimethylamine	62-75-9	1.8	U	1.8	0.72	1
12969	Di-n-octylphthalate	117-84-0	19	U	19	6.5	1
12969	Phenanthrene	85-01-8	4.1		1.8	0.72	1
12969	Pyrene	129-00-0	2.5		1.8	0.72	1
GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	1	U	1	0.2	22.89
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
10592	Aroclor 5432	63496-31-1	36	U	36	11	1
10592	Aroclor 5442	12642-23-8	36	U	36	11	1
10592	Aroclor 5460	11126-42-4	36	U	36	11	1
10592	PCB-1016	12674-11-2	18	U	18	3.6	1
10592	PCB-1221	11104-28-2	18	U	18	5.5	1
10592	PCB-1232	11141-16-5	18	U	18	4.4	1
10592	PCB-1242	53469-21-9	18	U	18	4.4	1
10592	PCB-1248	12672-29-6	18	U	18	3.6	1
10592	PCB-1254	11097-69-1	18	U	18	4.8	1
10592	PCB-1260	11096-82-5	18	U	18	4.2	1
10592	PCB-1262	37324-23-5	18	U	18	3.6	1
10592	PCB-1268	11100-14-4	18	U	18	3.6	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.4	U	5.4	2.2	1
12952	EFH (C15-C20)	n.a.	5.4	U	5.4	2.2	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-524-SA7-SB-1.0-2.0 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7081064
LLI Group # 1394643
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/04/2013 13:20 by VC

Submitted: 06/05/2013 09:20
Reported: 06/21/2013 16:43

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

52410 SDG#: PH046-07BKG

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C21-C30)	n.a.	12		5.4	2.2	1
12952	EFH (C30-C40)	n.a.	23		11	4.3	1
12952	EFH (C8-C11)	n.a.	5.4	U	5.4	2.2	1
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	12,300		41.6	8.01	1
06944	Antimony	7440-36-0	4.16	U	4.16	0.520	1
06935	Arsenic	7440-38-2	3.93	J	4.16	0.343	1
06946	Barium	7440-39-3	88.1		1.04	0.0343	1
06947	Beryllium	7440-41-7	0.480	J	1.04	0.0696	1
07914	Boron	7440-42-8	1.87	J	10.4	0.863	1
06949	Cadmium	7440-43-9	0.370	J	1.04	0.0343	1
01650	Calcium	7440-70-2	5,580		20.8	4.18	1
06951	Chromium	7440-47-3	18.5		3.12	0.0915	1
06952	Cobalt	7440-48-4	4.59		1.04	0.0936	1
06953	Copper	7440-50-8	10.3	J	10.4	0.936	5
01654	Iron	7439-89-6	22,000		41.6	3.95	1
06955	Lead	7439-92-1	5.69		3.12	0.489	1
01656	Lithium	7439-93-2	27.4		4.2	0.57	1
01657	Magnesium	7439-95-4	4,840		10.4	1.80	1
06958	Manganese	7439-96-5	280		1.04	0.0863	1
06960	Molybdenum	7439-98-7	0.777	J	2.08	0.177	1
06961	Nickel	7440-02-0	7.90		2.08	0.114	1
10145	Phosphorus	7723-14-0	401		10.4	0.530	1
01662	Potassium	7440-09-7	3,230		104	14.0	1
01667	Sodium	7440-23-5	123		104	17.4	1
06969	Tin	7440-31-5	3.08	J	10.4	0.229	1
06970	Titanium	7440-32-6	1,280		1.04	0.177	1
06971	Vanadium	7440-62-2	32.9		1.04	0.114	1
06972	Zinc	7440-66-6	59.2		4.16	0.208	1
10146	Zirconium	7440-67-7	5.20	U	5.20	0.863	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.416	U	0.416	0.104	2
06142	Silver	7440-22-4	0.208	U	0.208	0.0208	2
06144	Strontium	7440-24-6	17.9		0.416	0.0353	2
06145	Thallium	7440-28-0	0.285		0.208	0.0312	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0178	U	0.0178	0.0107	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045D	n.a.	8.18		0.0100	0.0100	1
	The pH was measured in water at 22.4 C.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	7.5		0.10	0.10	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-524-SA7-SB-1.0-2.0 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7081064
LLI Group # 1394643
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/04/2013 13:20 by VC

Submitted: 06/05/2013 09:20
Reported: 06/21/2013 16:43

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

52410 SDG#: PH046-07BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Wet Chemistry	**EPA 160.3 modified**		%	%	%	

Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-524-SA7-SB-1.0-2.0 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7081064
LLI Group # 1394643
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/04/2013 13:20 by VC

Submitted: 06/05/2013 09:20
Reported: 06/21/2013 16:43

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

52410 SDG#: PH046-07BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0250 JBQ	1.07	0.0165	1
11031	12378-PeCDD	40321-76-4	0.0475 JBQ	5.34	0.0179	1
11031	123478-HxCDD	39227-28-6	0.0246 JBQ	5.34	0.0181	1
11031	123678-HxCDD	57653-85-7	0.0966 JBQ	5.34	0.0191	1
11031	123789-HxCDD	19408-74-3	0.0998 JB	5.34	0.0186	1
11031	1234678-HpCDD	35822-46-9	0.859 JB	5.34	0.0175	1
11031	OCDD	3268-87-9	10.5 JB	10.7	0.0189	1
11031	2378-TCDF	51207-31-9	0.0189 JQ	1.07	0.0139	1
11031	12378-PeCDF	57117-41-6	0.156 JB	5.34	0.00984	1
11031	23478-PeCDF	57117-31-4	0.0555 JBQ	5.34	0.00919	1
11031	123478-HxCDF	70648-26-9	0.0474 JBQ	5.34	0.00876	1
11031	123678-HxCDF	57117-44-9	0.0572 JBQ	5.34	0.00854	1
11031	123789-HxCDF	72918-21-9	0.0748 JBQ	5.34	0.00930	1
11031	234678-HxCDF	60851-34-5	0.0368 JB	5.34	0.00843	1
11031	1234678-HpCDF	67562-39-4	0.186 JB	5.34	0.0138	1
11031	1234789-HpCDF	55673-89-7	0.0607 JB	5.34	0.0150	1
11031	OCDF	39001-02-0	0.277 JBQ	10.7	0.0178	1
Toxic Equivalents	**EPA 1613B**		ng/kg	ng/kg	ng/kg	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.0324			1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	81	25 - 164
13C12-12378-PeCDD	83	25 - 181
13C12-123478-HxCDD	82	32 - 141
13C12-123678-HxCDD	84	28 - 130
13C12-123789-HxCDD	83	28 - 130
13C12-1234678-HpCDD	81	23 - 140
13C12-OCDD	78	17 - 157
13C12-2378-TCDF	80	24 - 169
13C12-12378-PeCDF	84	24 - 185
13C12-23478-PeCDF	86	21 - 178
13C12-123478-HxCDF	89	26 - 152
13C12-123678-HxCDF	89	26 - 123
13C12-234678-HxCDF	89	28 - 136
13C12-123789-HxCDF	90	29 - 147
13C12-1234678-HpCDF	87	28 - 143
13C12-1234789-HpCDF	86	26 - 138
13C12-OCDF	84	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration

*=This limit was used in the evaluation of the final result

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Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: SL-524-SA7-SB-1.0-2.0 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7081064
LLI Group # 1394643
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/04/2013 13:20 by VC

Submitted: 06/05/2013 09:20
Reported: 06/21/2013 16:43

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

52410 SDG#: PH046-07BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-524-SA7-SB-1.0-2.0 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7081064
LLI Group # 1394643
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/04/2013 13:20 by VC

Submitted: 06/05/2013 09:20
Reported: 06/21/2013 16:43

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

52410 SDG#: PH046-07BKG

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13158SLC026	06/13/2013	01:18	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	13158SLC026	06/07/2013	17:50	Sally L Appleyard	1
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	13160A16A	06/09/2013	19:51	Laura M Krieger	22.89
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201315631319	06/05/2013	14:25	Mitchell R Washel	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201315631319	06/05/2013	14:25	Mitchell R Washel	n.a.
10592	19a PCBs and PCTs 8082A	SW-846 8082A	1	131620008A	06/12/2013	13:47	Monica M Souders	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	131620008A	06/11/2013	18:30	Sally L Appleyard	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	131610003A	06/12/2013	06:02	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	131610003A	06/10/2013	13:45	David S Schrum	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13163006	06/15/2013	13:45	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13163006	06/12/2013	13:00	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010C	1	131600637003	06/12/2013	20:29	Katlin N Cataldi	1
06944	Antimony	SW-846 6010C	1	131600637003	06/12/2013	20:29	Katlin N Cataldi	1
06935	Arsenic	SW-846 6010C	1	131600637003	06/12/2013	20:29	Katlin N Cataldi	1
06946	Barium	SW-846 6010C	1	131600637003	06/12/2013	20:29	Katlin N Cataldi	1
06947	Beryllium	SW-846 6010C	1	131600637003	06/12/2013	20:29	Katlin N Cataldi	1
07914	Boron	SW-846 6010C	1	131600637003	06/12/2013	20:29	Katlin N Cataldi	1
06949	Cadmium	SW-846 6010C	1	131600637003	06/12/2013	20:29	Katlin N Cataldi	1
01650	Calcium	SW-846 6010C	1	131600637003	06/12/2013	20:29	Katlin N Cataldi	1
06951	Chromium	SW-846 6010C	1	131600637003	06/12/2013	20:29	Katlin N Cataldi	1
06952	Cobalt	SW-846 6010C	1	131600637003	06/12/2013	20:29	Katlin N Cataldi	1
06953	Copper	SW-846 6010C	1	131600637003	06/14/2013	04:49	Tara L Snyder	5
01654	Iron	SW-846 6010C	1	131600637003	06/12/2013	20:29	Katlin N Cataldi	1
06955	Lead	SW-846 6010C	1	131600637003	06/12/2013	20:29	Katlin N Cataldi	1
01656	Lithium	SW-846 6010C	1	131600637003	06/12/2013	20:29	Katlin N Cataldi	1
01657	Magnesium	SW-846 6010C	1	131600637003	06/12/2013	20:29	Katlin N Cataldi	1
06958	Manganese	SW-846 6010C	1	131600637003	06/12/2013	20:29	Katlin N Cataldi	1
06960	Molybdenum	SW-846 6010C	1	131600637003	06/12/2013	20:29	Katlin N Cataldi	1
06961	Nickel	SW-846 6010C	1	131600637003	06/12/2013	20:29	Katlin N Cataldi	1
10145	Phosphorus	SW-846 6010C	1	131600637003	06/12/2013	20:29	Katlin N Cataldi	1
01662	Potassium	SW-846 6010C	1	131600637003	06/12/2013	20:29	Katlin N Cataldi	1
01667	Sodium	SW-846 6010C	1	131600637003	06/12/2013	20:29	Katlin N Cataldi	1
06969	Tin	SW-846 6010C	1	131600637003	06/12/2013	20:29	Katlin N Cataldi	1
06970	Titanium	SW-846 6010C	1	131600637003	06/12/2013	20:29	Katlin N Cataldi	1
06971	Vanadium	SW-846 6010C	1	131600637003	06/12/2013	20:29	Katlin N Cataldi	1
06972	Zinc	SW-846 6010C	1	131600637003	06/12/2013	20:29	Katlin N Cataldi	1
10146	Zirconium	SW-846 6010C	1	131600637003	06/12/2013	20:29	Katlin N Cataldi	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-524-SA7-SB-1.0-2.0 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7081064
LLI Group # 1394643
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/04/2013 13:20 by VC

Submitted: 06/05/2013 09:20
Reported: 06/21/2013 16:43

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

52410 SDG#: PH046-07BKG

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06141	Selenium	SW-846 6020A	1	131600637003B	06/11/2013 19:52	David K Beck	2
06142	Silver	SW-846 6020A	1	131600637003A	06/11/2013 19:52	David K Beck	2
06144	Strontium	SW-846 6020A	1	131600637003A	06/11/2013 19:52	David K Beck	2
06145	Thallium	SW-846 6020A	1	131600637003A	06/11/2013 19:52	David K Beck	2
00159	3a Mercury 7471A	SW-846 7471B	1	131640638001	06/16/2013 06:38	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	131600637003	06/11/2013 00:03	Annamaria Stipkovits	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	131640638001	06/15/2013 14:50	Annamaria Stipkovits	1
00394	15a pH by 9045D	SW-846 9045D modified	1	13156039401B	06/05/2013 21:00	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13162162401B	06/11/2013 23:07	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-524-SA7-SB-1.0-2.0MS Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7081065
LLI Group # 1394643
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/04/2013 13:20 by VC

Submitted: 06/05/2013 09:20
Reported: 06/21/2013 16:43

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

52410 SDG#: PH046-07MS

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	37		1.8	0.72	1
12969	Acenaphthylene	208-96-8	35		1.8	0.36	1
12969	Anthracene	120-12-7	33		1.8	0.36	1
12969	Benzo(a)anthracene	56-55-3	55		1.8	0.72	1
12969	Benzo(a)pyrene	50-32-8	37		1.8	0.72	1
12969	Benzo(b)fluoranthene	205-99-2	52		1.8	0.72	1
12969	Benzo(e)pyrene	192-97-2	55		18	3.6	1
12969	Benzo(g,h,i)perylene	191-24-2	16		1.8	0.72	1
12969	Benzo(k)fluoranthene	207-08-9	44		1.8	0.72	1
12969	Butylbenzylphthalate	85-68-7	59		19	6.5	1
12969	Di-n-butylphthalate	84-74-2	39		19	6.5	1
12969	Chrysene	218-01-9	73		1.8	0.36	1
12969	Dibenz(a,h)anthracene	53-70-3	19		1.8	0.72	1
12969	Diethylphthalate	84-66-2	41		19	6.5	1
12969	Dimethylphthalate	131-11-3	44		19	6.5	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	50		19	6.5	1
12969	Fluoranthene	206-44-0	44		1.8	0.72	1
12969	Fluorene	86-73-7	37		1.8	0.72	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	18		1.8	0.72	1
12969	1-Methylnaphthalene	90-12-0	36		1.8	0.72	1
12969	2-Methylnaphthalene	91-57-6	35		1.8	0.72	1
12969	Naphthalene	91-20-3	38		1.8	0.72	1
12969	N-Nitrosodimethylamine	62-75-9	40		1.8	0.72	1
12969	Di-n-octylphthalate	117-84-0	71		19	6.5	1
12969	Phenanthrene	85-01-8	60		1.8	0.72	1
12969	Pyrene	129-00-0	56		1.8	0.72	1
GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	11		1	0.2	23.11
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
10592	Aroclor 5432	63496-31-1	36	U	36	11	1
10592	Aroclor 5442	12642-23-8	36	U	36	11	1
10592	Aroclor 5460	11126-42-4	36	U	36	11	1
10592	PCB-1016	12674-11-2	85		18	3.6	1
10592	PCB-1221	11104-28-2	18	U	18	5.5	1
10592	PCB-1232	11141-16-5	18	U	18	4.4	1
10592	PCB-1242	53469-21-9	18	U	18	4.4	1
10592	PCB-1248	12672-29-6	18	U	18	3.6	1
10592	PCB-1254	11097-69-1	18	U	18	4.8	1
10592	PCB-1260	11096-82-5	76		18	4.2	1
10592	PCB-1262	37324-23-5	18	U	18	3.6	1
10592	PCB-1268	11100-14-4	18	U	18	3.6	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	11	U	11	4.3	2
12952	EFH (C15-C20)	n.a.	7.9	J	11	4.3	2

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-524-SA7-SB-1.0-2.0MS Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7081065
LLI Group # 1394643
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/04/2013 13:20 by VC

Submitted: 06/05/2013 09:20
Reported: 06/21/2013 16:43

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

52410 SDG#: PH046-07MS

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C21-C30)	n.a.	72		11	4.3	2
12952	EFH (C30-C40)	n.a.	160		22	8.6	2
12952	EFH (C8-C11)	n.a.	11	U	11	4.3	2
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	15,800		41.6	8.01	1
06944	Antimony	7440-36-0	40.2		4.16	0.520	1
06935	Arsenic	7440-38-2	20.5		4.16	0.343	1
06946	Barium	7440-39-3	313		1.04	0.0343	1
06947	Beryllium	7440-41-7	5.92		1.04	0.0696	1
07914	Boron	7440-42-8	214		10.4	0.863	1
06949	Cadmium	7440-43-9	5.50		1.04	0.0343	1
01650	Calcium	7440-70-2	7,180		20.8	4.18	1
06951	Chromium	7440-47-3	42.0		3.12	0.0915	1
06952	Cobalt	7440-48-4	56.0		1.04	0.0936	1
06953	Copper	7440-50-8	38.4		10.4	0.936	5
01654	Iron	7439-89-6	24,700		41.6	3.95	1
06955	Lead	7439-92-1	21.5		3.12	0.489	1
01656	Lithium	7439-93-2	136		4.2	0.57	1
01657	Magnesium	7439-95-4	5,740		10.4	1.80	1
06958	Manganese	7439-96-5	365		1.04	0.0863	1
06960	Molybdenum	7439-98-7	206		2.08	0.177	1
06961	Nickel	7440-02-0	61.5		2.08	0.114	1
10145	Phosphorus	7723-14-0	563		10.4	0.530	1
01662	Potassium	7440-09-7	4,660		104	14.0	1
01667	Sodium	7440-23-5	1,180		104	17.4	1
06969	Tin	7440-31-5	387		10.4	0.229	1
06970	Titanium	7440-32-6	1,670		1.04	0.177	1
06971	Vanadium	7440-62-2	92.0		1.04	0.114	1
06972	Zinc	7440-66-6	115		4.16	0.208	1
10146	Zirconium	7440-67-7	106		5.20	0.863	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	2.36		0.416	0.104	2
06142	Silver	7440-22-4	11.0		0.208	0.0208	2
06144	Strontium	7440-24-6	28.2		0.416	0.0353	2
06145	Thallium	7440-28-0	0.671		0.208	0.0312	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.178		0.0177	0.0106	1
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11625	14a Moisture Content by 160.3	n.a.	7.5		0.10	0.10	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-524-SA7-SB-1.0-2.0MS Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7081065
LLI Group # 1394643
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/04/2013 13:20 by VC

Submitted: 06/05/2013 09:20
Reported: 06/21/2013 16:43

CDM Federal Programs Corp.
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Fairfax VA 22030

52410 SDG#: PH046-07MS

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	21.2	B	1.08	0.0299	1
11031	12378-PeCDD	40321-76-4	106	B	5.38	0.0315	1
11031	123478-HxCDD	39227-28-6	115	B	5.38	0.0383	1
11031	123678-HxCDD	57653-85-7	112	B	5.38	0.0390	1
11031	123789-HxCDD	19408-74-3	113	B	5.38	0.0366	1
11031	1234678-HpCDD	35822-46-9	112	B	5.38	0.0369	1
11031	OCDD	3268-87-9	231	B	10.8	0.0486	1
11031	2378-TCDF	51207-31-9	21.8		1.08	0.0201	1
11031	12378-PeCDF	57117-41-6	110	B	5.38	0.0172	1
11031	23478-PeCDF	57117-31-4	113	B	5.38	0.0162	1
11031	123478-HxCDF	70648-26-9	115	B	5.38	0.0264	1
11031	123678-HxCDF	57117-44-9	112	B	5.38	0.0255	1
11031	123789-HxCDF	72918-21-9	113	B	5.38	0.0276	1
11031	234678-HxCDF	60851-34-5	114	B	5.38	0.0255	1
11031	1234678-HpCDF	67562-39-4	114	B	5.38	0.0301	1
11031	1234789-HpCDF	55673-89-7	113	B	5.38	0.0311	1
11031	OCDF	39001-02-0	222	B	10.8	0.0400	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	84	25 - 164
13C12-12378-PeCDD	87	25 - 181
13C12-123478-HxCDD	85	32 - 141
13C12-123678-HxCDD	86	28 - 130
13C12-123789-HxCDD	86	28 - 130
13C12-1234678-HpCDD	81	23 - 140
13C12-OCDD	72	17 - 157
13C12-2378-TCDF	83	24 - 169
13C12-12378-PeCDF	88	24 - 185
13C12-23478-PeCDF	88	21 - 178
13C12-123478-HxCDF	93	26 - 152
13C12-123678-HxCDF	92	26 - 123
13C12-234678-HxCDF	92	28 - 136
13C12-123789-HxCDF	93	29 - 147
13C12-1234678-HpCDF	88	28 - 143
13C12-1234789-HpCDF	88	26 - 138
13C12-OCDF	82	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present
S Saturation of detection signal

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-524-SA7-SB-1.0-2.0MS Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7081065
LLI Group # 1394643
Account # 13013

Project Name: Phase 3 Subarea 7

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52410 SDG#: PH046-07MS

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13158SLC026	06/13/2013	01:51	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	13158SLC026	06/07/2013	17:50	Sally L Appleyard	1
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	13160A16A	06/09/2013	20:29	Laura M Krieger	23.11
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201315631319	06/05/2013	14:26	Mitchell R Washel	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201315631319	06/05/2013	14:26	Mitchell R Washel	n.a.
10592	19a PCBs and PCTs 8082A	SW-846 8082A	1	131620008A	06/12/2013	14:06	Monica M Souders	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	131620008A	06/11/2013	18:30	Sally L Appleyard	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	131610003A	06/12/2013	14:28	Heather E Williams	2
12959	EFH soil ext.(microwave)	SW-846 3546	1	131610003A	06/10/2013	13:45	David S Schrum	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13163006	06/15/2013	14:41	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13163006	06/12/2013	13:00	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010C	1	131600637003	06/12/2013	20:41	Katlin N Cataldi	1
06944	Antimony	SW-846 6010C	1	131600637003	06/12/2013	20:41	Katlin N Cataldi	1
06935	Arsenic	SW-846 6010C	1	131600637003	06/12/2013	20:41	Katlin N Cataldi	1
06946	Barium	SW-846 6010C	1	131600637003	06/12/2013	20:41	Katlin N Cataldi	1
06947	Beryllium	SW-846 6010C	1	131600637003	06/12/2013	20:41	Katlin N Cataldi	1
07914	Boron	SW-846 6010C	1	131600637003	06/12/2013	20:41	Katlin N Cataldi	1
06949	Cadmium	SW-846 6010C	1	131600637003	06/12/2013	20:41	Katlin N Cataldi	1
01650	Calcium	SW-846 6010C	1	131600637003	06/12/2013	20:41	Katlin N Cataldi	1
06951	Chromium	SW-846 6010C	1	131600637003	06/12/2013	20:41	Katlin N Cataldi	1
06952	Cobalt	SW-846 6010C	1	131600637003	06/12/2013	20:41	Katlin N Cataldi	1
06953	Copper	SW-846 6010C	1	131600637003	06/14/2013	05:00	Tara L Snyder	5
01654	Iron	SW-846 6010C	1	131600637003	06/12/2013	20:41	Katlin N Cataldi	1
06955	Lead	SW-846 6010C	1	131600637003	06/12/2013	20:41	Katlin N Cataldi	1
01656	Lithium	SW-846 6010C	1	131600637003	06/12/2013	20:41	Katlin N Cataldi	1
01657	Magnesium	SW-846 6010C	1	131600637003	06/12/2013	20:41	Katlin N Cataldi	1
06958	Manganese	SW-846 6010C	1	131600637003	06/12/2013	20:41	Katlin N Cataldi	1
06960	Molybdenum	SW-846 6010C	1	131600637003	06/12/2013	20:41	Katlin N Cataldi	1
06961	Nickel	SW-846 6010C	1	131600637003	06/12/2013	20:41	Katlin N Cataldi	1
10145	Phosphorus	SW-846 6010C	1	131600637003	06/12/2013	20:41	Katlin N Cataldi	1
01662	Potassium	SW-846 6010C	1	131600637003	06/12/2013	20:41	Katlin N Cataldi	1
01667	Sodium	SW-846 6010C	1	131600637003	06/12/2013	20:41	Katlin N Cataldi	1
06969	Tin	SW-846 6010C	1	131600637003	06/12/2013	20:41	Katlin N Cataldi	1
06970	Titanium	SW-846 6010C	1	131600637003	06/12/2013	20:41	Katlin N Cataldi	1
06971	Vanadium	SW-846 6010C	1	131600637003	06/12/2013	20:41	Katlin N Cataldi	1
06972	Zinc	SW-846 6010C	1	131600637003	06/12/2013	20:41	Katlin N Cataldi	1
10146	Zirconium	SW-846 6010C	1	131600637003	06/12/2013	20:41	Katlin N Cataldi	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-524-SA7-SB-1.0-2.0MS Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7081065
LLI Group # 1394643
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/04/2013 13:20 by VC

Submitted: 06/05/2013 09:20
Reported: 06/21/2013 16:43

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

52410 SDG#: PH046-07MS

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06141	Selenium	SW-846 6020A	1	131600637003B	06/11/2013 19:59	David K Beck	2
06142	Silver	SW-846 6020A	1	131600637003A	06/11/2013 19:59	David K Beck	2
06144	Strontium	SW-846 6020A	1	131600637003A	06/11/2013 19:59	David K Beck	2
06145	Thallium	SW-846 6020A	1	131600637003A	06/11/2013 19:59	David K Beck	2
00159	3a Mercury 7471A	SW-846 7471B	1	131640638001	06/16/2013 06:44	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	131600637003	06/11/2013 00:03	Annamaria Stipkovits	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	131640638001	06/15/2013 14:50	Annamaria Stipkovits	1
11625	14a Moisture Content by 160.3	EPA 160.3 modified	1	13162162401B	06/11/2013 23:07	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-524-SA7-SB-1.0-2.0MSD Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7081066
LLI Group # 1394643
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/04/2013 13:20 by VC

Submitted: 06/05/2013 09:20
Reported: 06/21/2013 16:43

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

52410 SDG#: PH046-07MSD

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	31		1.8	0.72	1
12969	Acenaphthylene	208-96-8	30		1.8	0.36	1
12969	Anthracene	120-12-7	32		1.8	0.36	1
12969	Benzo(a)anthracene	56-55-3	42		1.8	0.72	1
12969	Benzo(a)pyrene	50-32-8	35		1.8	0.72	1
12969	Benzo(b)fluoranthene	205-99-2	44		1.8	0.72	1
12969	Benzo(e)pyrene	192-97-2	41		18	3.6	1
12969	Benzo(g,h,i)perylene	191-24-2	15		1.8	0.72	1
12969	Benzo(k)fluoranthene	207-08-9	42		1.8	0.72	1
12969	Butylbenzylphthalate	85-68-7	41		19	6.5	1
12969	Di-n-butylphthalate	84-74-2	34		19	6.5	1
12969	Chrysene	218-01-9	49		1.8	0.36	1
12969	Dibenz(a,h)anthracene	53-70-3	19		1.8	0.72	1
12969	Diethylphthalate	84-66-2	33		19	6.5	1
12969	Dimethylphthalate	131-11-3	36		19	6.5	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	38		19	6.5	1
12969	Fluoranthene	206-44-0	39		1.8	0.72	1
12969	Fluorene	86-73-7	33		1.8	0.72	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	18		1.8	0.72	1
12969	1-Methylnaphthalene	90-12-0	33		1.8	0.72	1
12969	2-Methylnaphthalene	91-57-6	32		1.8	0.72	1
12969	Naphthalene	91-20-3	33		1.8	0.72	1
12969	N-Nitrosodimethylamine	62-75-9	34		1.8	0.72	1
12969	Di-n-octylphthalate	117-84-0	55		19	6.5	1
12969	Phenanthrene	85-01-8	42		1.8	0.72	1
12969	Pyrene	129-00-0	42		1.8	0.72	1
GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	11		1.0	0.2	24.13
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
10592	Aroclor 5432	63496-31-1	36	U	36	11	1
10592	Aroclor 5442	12642-23-8	36	U	36	11	1
10592	Aroclor 5460	11126-42-4	36	U	36	11	1
10592	PCB-1016	12674-11-2	120		18	3.6	1
10592	PCB-1221	11104-28-2	18	U	18	5.5	1
10592	PCB-1232	11141-16-5	18	U	18	4.4	1
10592	PCB-1242	53469-21-9	18	U	18	4.4	1
10592	PCB-1248	12672-29-6	18	U	18	3.6	1
10592	PCB-1254	11097-69-1	18	U	18	4.8	1
10592	PCB-1260	11096-82-5	96		18	4.2	1
10592	PCB-1262	37324-23-5	18	U	18	3.6	1
10592	PCB-1268	11100-14-4	18	U	18	3.6	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	11	U	11	4.3	2
12952	EFH (C15-C20)	n.a.	7.3	J	11	4.3	2

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-524-SA7-SB-1.0-2.0MSD Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7081066
LLI Group # 1394643
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/04/2013 13:20 by VC

Submitted: 06/05/2013 09:20
Reported: 06/21/2013 16:43

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

52410 SDG#: PH046-07MSD

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C21-C30)	n.a.	87		11	4.3	2
12952	EFH (C30-C40)	n.a.	180		22	8.6	2
12952	EFH (C8-C11)	n.a.	11	U	11	4.3	2
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	15,300		41.6	8.01	1
06944	Antimony	7440-36-0	40.8		4.16	0.520	1
06935	Arsenic	7440-38-2	20.1		4.16	0.343	1
06946	Barium	7440-39-3	303		1.04	0.0343	1
06947	Beryllium	7440-41-7	5.87		1.04	0.0696	1
07914	Boron	7440-42-8	214		10.4	0.863	1
06949	Cadmium	7440-43-9	5.46		1.04	0.0343	1
01650	Calcium	7440-70-2	6,550		20.8	4.18	1
06951	Chromium	7440-47-3	40.5		3.12	0.0915	1
06952	Cobalt	7440-48-4	55.4		1.04	0.0936	1
06953	Copper	7440-50-8	38.1		10.4	0.936	5
01654	Iron	7439-89-6	23,000		41.6	3.95	1
06955	Lead	7439-92-1	20.7		3.12	0.489	1
01656	Lithium	7439-93-2	134		4.2	0.57	1
01657	Magnesium	7439-95-4	5,450		10.4	1.80	1
06958	Manganese	7439-96-5	354		1.04	0.0863	1
06960	Molybdenum	7439-98-7	205		2.08	0.177	1
06961	Nickel	7440-02-0	60.7		2.08	0.114	1
10145	Phosphorus	7723-14-0	513		10.4	0.530	1
01662	Potassium	7440-09-7	4,280		104	14.0	1
01667	Sodium	7440-23-5	1,160		104	17.4	1
06969	Tin	7440-31-5	386		10.4	0.229	1
06970	Titanium	7440-32-6	1,580		1.04	0.177	1
06971	Vanadium	7440-62-2	89.4		1.04	0.114	1
06972	Zinc	7440-66-6	111		4.16	0.208	1
10146	Zirconium	7440-67-7	105		5.20	0.863	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	2.19		0.416	0.104	2
06142	Silver	7440-22-4	10.7		0.208	0.0208	2
06144	Strontium	7440-24-6	27.5		0.416	0.0353	2
06145	Thallium	7440-28-0	0.665		0.208	0.0312	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.169		0.0174	0.0104	1
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11625	14a Moisture Content by 160.3	n.a.	7.5		0.10	0.10	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-524-SA7-SB-1.0-2.0MSD Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7081066
LLI Group # 1394643
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/04/2013 13:20 by VC

Submitted: 06/05/2013 09:20
Reported: 06/21/2013 16:43

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

52410 SDG#: PH046-07MSD

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	20.6	B	1.07	0.0275	1
11031	12378-PeCDD	40321-76-4	108	B	5.36	0.0301	1
11031	123478-HxCDD	39227-28-6	114	B	5.36	0.0326	1
11031	123678-HxCDD	57653-85-7	111	B	5.36	0.0348	1
11031	123789-HxCDD	19408-74-3	112	B	5.36	0.0320	1
11031	1234678-HpCDD	35822-46-9	110	B	5.36	0.0417	1
11031	OCDD	3268-87-9	229	B	10.7	0.0467	1
11031	2378-TCDF	51207-31-9	21.5		1.07	0.0204	1
11031	12378-PeCDF	57117-41-6	111	B	5.36	0.0197	1
11031	23478-PeCDF	57117-31-4	111	B	5.36	0.0187	1
11031	123478-HxCDF	70648-26-9	113	B	5.36	0.0270	1
11031	123678-HxCDF	57117-44-9	109	B	5.36	0.0261	1
11031	123789-HxCDF	72918-21-9	112	B	5.36	0.0275	1
11031	234678-HxCDF	60851-34-5	113	B	5.36	0.0250	1
11031	1234678-HpCDF	67562-39-4	112	B	5.36	0.0256	1
11031	1234789-HpCDF	55673-89-7	112	B	5.36	0.0296	1
11031	OCDF	39001-02-0	223	B	10.7	0.0388	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	82	25 - 164
13C12-12378-PeCDD	84	25 - 181
13C12-123478-HxCDD	82	32 - 141
13C12-123678-HxCDD	82	28 - 130
13C12-123789-HxCDD	82	28 - 130
13C12-1234678-HpCDD	82	23 - 140
13C12-OCDD	81	17 - 157
13C12-2378-TCDF	79	24 - 169
13C12-12378-PeCDF	85	24 - 185
13C12-23478-PeCDF	86	21 - 178
13C12-123478-HxCDF	87	26 - 152
13C12-123678-HxCDF	88	26 - 123
13C12-234678-HxCDF	87	28 - 136
13C12-123789-HxCDF	90	29 - 147
13C12-1234678-HpCDF	90	28 - 143
13C12-1234789-HpCDF	87	26 - 138
13C12-OCDF	87	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present
S Saturation of detection signal

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-524-SA7-SB-1.0-2.0MSD Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7081066
LLI Group # 1394643
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/04/2013 13:20 by VC

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CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

52410 SDG#: PH046-07MSD

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13158SLC026	06/13/2013	02:24	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	13158SLC026	06/07/2013	17:50	Sally L Appleyard	1
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	13160A16A	06/09/2013	21:07	Laura M Krieger	24.13
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201315631319	06/05/2013	14:26	Mitchell R Washel	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201315631319	06/05/2013	14:26	Mitchell R Washel	n.a.
10592	19a PCBs and PCTs 8082A	SW-846 8082A	1	131620008A	06/12/2013	14:25	Monica M Souders	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	131620008A	06/11/2013	18:30	Sally L Appleyard	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	131610003A	06/12/2013	14:49	Heather E Williams	2
12959	EFH soil ext.(microwave)	SW-846 3546	1	131610003A	06/10/2013	13:45	David S Schrum	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13163006	06/15/2013	15:38	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13163006	06/12/2013	13:00	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010C	1	131600637003	06/12/2013	20:44	Katlin N Cataldi	1
06944	Antimony	SW-846 6010C	1	131600637003	06/12/2013	20:44	Katlin N Cataldi	1
06935	Arsenic	SW-846 6010C	1	131600637003	06/12/2013	20:44	Katlin N Cataldi	1
06946	Barium	SW-846 6010C	1	131600637003	06/12/2013	20:44	Katlin N Cataldi	1
06947	Beryllium	SW-846 6010C	1	131600637003	06/12/2013	20:44	Katlin N Cataldi	1
07914	Boron	SW-846 6010C	1	131600637003	06/12/2013	20:44	Katlin N Cataldi	1
06949	Cadmium	SW-846 6010C	1	131600637003	06/12/2013	20:44	Katlin N Cataldi	1
01650	Calcium	SW-846 6010C	1	131600637003	06/12/2013	20:44	Katlin N Cataldi	1
06951	Chromium	SW-846 6010C	1	131600637003	06/12/2013	20:44	Katlin N Cataldi	1
06952	Cobalt	SW-846 6010C	1	131600637003	06/12/2013	20:44	Katlin N Cataldi	1
06953	Copper	SW-846 6010C	1	131600637003	06/14/2013	05:04	Tara L Snyder	5
01654	Iron	SW-846 6010C	1	131600637003	06/12/2013	20:44	Katlin N Cataldi	1
06955	Lead	SW-846 6010C	1	131600637003	06/12/2013	20:44	Katlin N Cataldi	1
01656	Lithium	SW-846 6010C	1	131600637003	06/12/2013	20:44	Katlin N Cataldi	1
01657	Magnesium	SW-846 6010C	1	131600637003	06/12/2013	20:44	Katlin N Cataldi	1
06958	Manganese	SW-846 6010C	1	131600637003	06/12/2013	20:44	Katlin N Cataldi	1
06960	Molybdenum	SW-846 6010C	1	131600637003	06/12/2013	20:44	Katlin N Cataldi	1
06961	Nickel	SW-846 6010C	1	131600637003	06/12/2013	20:44	Katlin N Cataldi	1
10145	Phosphorus	SW-846 6010C	1	131600637003	06/12/2013	20:44	Katlin N Cataldi	1
01662	Potassium	SW-846 6010C	1	131600637003	06/12/2013	20:44	Katlin N Cataldi	1
01667	Sodium	SW-846 6010C	1	131600637003	06/12/2013	20:44	Katlin N Cataldi	1
06969	Tin	SW-846 6010C	1	131600637003	06/12/2013	20:44	Katlin N Cataldi	1
06970	Titanium	SW-846 6010C	1	131600637003	06/12/2013	20:44	Katlin N Cataldi	1
06971	Vanadium	SW-846 6010C	1	131600637003	06/12/2013	20:44	Katlin N Cataldi	1
06972	Zinc	SW-846 6010C	1	131600637003	06/12/2013	20:44	Katlin N Cataldi	1
10146	Zirconium	SW-846 6010C	1	131600637003	06/12/2013	20:44	Katlin N Cataldi	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-524-SA7-SB-1.0-2.0MSD Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7081066
LLI Group # 1394643
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/04/2013 13:20 by VC

Submitted: 06/05/2013 09:20
Reported: 06/21/2013 16:43

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

52410 SDG#: PH046-07MSD

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06141	Selenium	SW-846 6020A	1	131600637003B	06/11/2013 20:02	David K Beck	2
06142	Silver	SW-846 6020A	1	131600637003A	06/11/2013 20:02	David K Beck	2
06144	Strontium	SW-846 6020A	1	131600637003A	06/11/2013 20:02	David K Beck	2
06145	Thallium	SW-846 6020A	1	131600637003A	06/11/2013 20:02	David K Beck	2
00159	3a Mercury 7471A	SW-846 7471B	1	131640638001	06/16/2013 06:46	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	131600637003	06/11/2013 00:03	Annamaria Stipkovits	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	131640638001	06/15/2013 14:50	Annamaria Stipkovits	1
11625	14a Moisture Content by 160.3	EPA 160.3 modified	1	13162162401B	06/11/2013 23:07	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-524-SA7-SB-1.0-2.0DUP Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7081067
LLI Group # 1394643
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/04/2013 13:20 by VC

Submitted: 06/05/2013 09:20
Reported: 06/21/2013 16:43

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

52410 SDG#: PH046-07DUP

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	14,000		41.6	8.01	1
06944	Antimony	7440-36-0	4.16	U	4.16	0.520	1
06935	Arsenic	7440-38-2	4.82		4.16	0.343	1
06946	Barium	7440-39-3	106		1.04	0.0343	1
06947	Beryllium	7440-41-7	0.570	J	1.04	0.0696	1
07914	Boron	7440-42-8	1.42	J	10.4	0.863	1
06949	Cadmium	7440-43-9	0.365	J	1.04	0.0343	1
01650	Calcium	7440-70-2	8,510		20.8	4.18	1
06951	Chromium	7440-47-3	21.4		3.12	0.0915	1
06952	Cobalt	7440-48-4	5.33		1.04	0.0936	1
06953	Copper	7440-50-8	12.4		10.4	0.936	5
01654	Iron	7439-89-6	24,900		41.6	3.95	1
06955	Lead	7439-92-1	6.54		3.12	0.489	1
01656	Lithium	7439-93-2	29.3		4.2	0.57	1
01657	Magnesium	7439-95-4	5,370		10.4	1.80	1
06958	Manganese	7439-96-5	298		1.04	0.0863	1
06960	Molybdenum	7439-98-7	0.391	J	2.08	0.177	1
06961	Nickel	7440-02-0	10.3		2.08	0.114	1
10145	Phosphorus	7723-14-0	486		10.4	0.530	1
01662	Potassium	7440-09-7	3,560		104	14.0	1
01667	Sodium	7440-23-5	137		104	17.4	1
06969	Tin	7440-31-5	3.08	J	10.4	0.229	1
06970	Titanium	7440-32-6	1,430		1.04	0.177	1
06971	Vanadium	7440-62-2	36.3		1.04	0.114	1
06972	Zinc	7440-66-6	66.0		4.16	0.208	1
10146	Zirconium	7440-67-7	1.13	J	5.20	0.863	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.416	U	0.416	0.104	2
06142	Silver	7440-22-4	0.0220	J	0.208	0.0208	2
06144	Strontium	7440-24-6	24.4		0.416	0.0353	2
06145	Thallium	7440-28-0	0.287		0.208	0.0312	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0172	U	0.0172	0.0103	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045D	n.a.	8.20		0.0100	0.0100	1
	The pH was measured in water at 22.1 C.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11625	14a Moisture Content by 160.3	n.a.	7.5		0.10	0.10	1
11626	14a Moisture Content by 160.3	n.a.	8.4		0.10	0.10	1
	The duplicate moisture value is provided to assess the precision of the moisture test. For comparability purposes, the initial moisture determination is the value used to perform dry weight calculations.						

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-524-SA7-SB-1.0-2.0DUP Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7081067
LLI Group # 1394643
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/04/2013 13:20 by VC

Submitted: 06/05/2013 09:20
Reported: 06/21/2013 16:43

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

52410 SDG#: PH046-07DUP

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01643	Aluminum	SW-846 6010C	1	131600637003	06/12/2013 20:37	Katlin N Cataldi	1
06944	Antimony	SW-846 6010C	1	131600637003	06/12/2013 20:37	Katlin N Cataldi	1
06935	Arsenic	SW-846 6010C	1	131600637003	06/12/2013 20:37	Katlin N Cataldi	1
06946	Barium	SW-846 6010C	1	131600637003	06/12/2013 20:37	Katlin N Cataldi	1
06947	Beryllium	SW-846 6010C	1	131600637003	06/12/2013 20:37	Katlin N Cataldi	1
07914	Boron	SW-846 6010C	1	131600637003	06/12/2013 20:37	Katlin N Cataldi	1
06949	Cadmium	SW-846 6010C	1	131600637003	06/12/2013 20:37	Katlin N Cataldi	1
01650	Calcium	SW-846 6010C	1	131600637003	06/12/2013 20:37	Katlin N Cataldi	1
06951	Chromium	SW-846 6010C	1	131600637003	06/12/2013 20:37	Katlin N Cataldi	1
06952	Cobalt	SW-846 6010C	1	131600637003	06/12/2013 20:37	Katlin N Cataldi	1
06953	Copper	SW-846 6010C	1	131600637003	06/14/2013 04:57	Tara L Snyder	5
01654	Iron	SW-846 6010C	1	131600637003	06/12/2013 20:37	Katlin N Cataldi	1
06955	Lead	SW-846 6010C	1	131600637003	06/12/2013 20:37	Katlin N Cataldi	1
01656	Lithium	SW-846 6010C	1	131600637003	06/12/2013 20:37	Katlin N Cataldi	1
01657	Magnesium	SW-846 6010C	1	131600637003	06/12/2013 20:37	Katlin N Cataldi	1
06958	Manganese	SW-846 6010C	1	131600637003	06/12/2013 20:37	Katlin N Cataldi	1
06960	Molybdenum	SW-846 6010C	1	131600637003	06/12/2013 20:37	Katlin N Cataldi	1
06961	Nickel	SW-846 6010C	1	131600637003	06/12/2013 20:37	Katlin N Cataldi	1
10145	Phosphorus	SW-846 6010C	1	131600637003	06/12/2013 20:37	Katlin N Cataldi	1
01662	Potassium	SW-846 6010C	1	131600637003	06/12/2013 20:37	Katlin N Cataldi	1
01667	Sodium	SW-846 6010C	1	131600637003	06/12/2013 20:37	Katlin N Cataldi	1
06969	Tin	SW-846 6010C	1	131600637003	06/12/2013 20:37	Katlin N Cataldi	1
06970	Titanium	SW-846 6010C	1	131600637003	06/12/2013 20:37	Katlin N Cataldi	1
06971	Vanadium	SW-846 6010C	1	131600637003	06/12/2013 20:37	Katlin N Cataldi	1
06972	Zinc	SW-846 6010C	1	131600637003	06/12/2013 20:37	Katlin N Cataldi	1
10146	Zirconium	SW-846 6010C	1	131600637003	06/12/2013 20:37	Katlin N Cataldi	1
06141	Selenium	SW-846 6020A	1	131600637003B	06/11/2013 19:57	David K Beck	2
06142	Silver	SW-846 6020A	1	131600637003A	06/11/2013 19:57	David K Beck	2
06144	Strontium	SW-846 6020A	1	131600637003A	06/11/2013 19:57	David K Beck	2
06145	Thallium	SW-846 6020A	1	131600637003A	06/11/2013 19:57	David K Beck	2
00159	3a Mercury 7471A	SW-846 7471B	1	131640638001	06/16/2013 06:42	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	131600637003	06/11/2013 00:03	Annamaria Stipkovits	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	131640638001	06/15/2013 14:50	Annamaria Stipkovits	1
00394	15a pH by 9045D	SW-846 9045D modified	1	13156039401B	06/05/2013 21:00	Luz M Groff	1
11625	14a Moisture Content by 160.3	EPA 160.3 modified	1	13162162401B	06/11/2013 23:07	Scott W Freisher	1
11626	14a Moisture Content by 160.3	EPA 160.3 modified	1	13162162401B	06/11/2013 23:07	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-524-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7081068
LLI Group # 1394643
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/04/2013 13:10 by VC

Submitted: 06/05/2013 09:20
Reported: 06/21/2013 16:43

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

52400 SDG#: PH046-08

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.8	U	1.8	0.72	1
12969	Acenaphthylene	208-96-8	1.8	U	1.8	0.36	1
12969	Anthracene	120-12-7	0.63	J	1.8	0.36	1
12969	Benzo(a)anthracene	56-55-3	4.3		1.8	0.72	1
12969	Benzo(a)pyrene	50-32-8	3.7		1.8	0.72	1
12969	Benzo(b)fluoranthene	205-99-2	8.0		1.8	0.72	1
12969	Benzo(e)pyrene	192-97-2	13	J	18	3.6	1
12969	Benzo(g,h,i)perylene	191-24-2	1.9		1.8	0.72	1
12969	Benzo(k)fluoranthene	207-08-9	1.9		1.8	0.72	1
12969	Butylbenzylphthalate	85-68-7	19	U	19	6.5	1
12969	Di-n-butylphthalate	84-74-2	19	U	19	6.5	1
12969	Chrysene	218-01-9	20		1.8	0.36	1
12969	Dibenz(a,h)anthracene	53-70-3	1.1	J	1.8	0.72	1
12969	Diethylphthalate	84-66-2	19	U	19	6.5	1
12969	Dimethylphthalate	131-11-3	19	U	19	6.5	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	7.8	J	19	6.5	1
12969	Fluoranthene	206-44-0	3.1		1.8	0.72	1
12969	Fluorene	86-73-7	1.8	U	1.8	0.72	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.1	J	1.8	0.72	1
12969	1-Methylnaphthalene	90-12-0	1.7	J	1.8	0.72	1
12969	2-Methylnaphthalene	91-57-6	2.0		1.8	0.72	1
12969	Naphthalene	91-20-3	1.8	U	1.8	0.72	1
12969	N-Nitrosodimethylamine	62-75-9	1.8	U	1.8	0.72	1
12969	Di-n-octylphthalate	117-84-0	19	U	19	6.5	1
12969	Phenanthrene	85-01-8	16		1.8	0.72	1
12969	Pyrene	129-00-0	8.9		1.8	0.72	1
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
10592	Aroclor 5432	63496-31-1	36	U	36	11	1
10592	Aroclor 5442	12642-23-8	36	U	36	11	1
10592	Aroclor 5460	11126-42-4	36	U	36	11	1
10592	PCB-1016	12674-11-2	18	U	18	3.6	1
10592	PCB-1221	11104-28-2	18	U	18	5.5	1
10592	PCB-1232	11141-16-5	18	U	18	4.4	1
10592	PCB-1242	53469-21-9	18	U	18	4.4	1
10592	PCB-1248	12672-29-6	18	U	18	3.6	1
10592	PCB-1254	11097-69-1	18	U	18	4.7	1
10592	PCB-1260	11096-82-5	18	U	18	4.2	1
10592	PCB-1262	37324-23-5	18	U	18	3.6	1
10592	PCB-1268	11100-14-4	18	U	18	3.6	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	11	U	11	4.3	2
12952	EFH (C15-C20)	n.a.	11	U	11	4.3	2
12952	EFH (C21-C30)	n.a.	28		11	4.3	2
12952	EFH (C30-C40)	n.a.	120		22	8.6	2
12952	EFH (C8-C11)	n.a.	11	U	11	4.3	2
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-524-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7081068
LLI Group # 1394643
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/04/2013 13:10 by VC

Submitted: 06/05/2013 09:20
Reported: 06/21/2013 16:43

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

52400 SDG#: PH046-08

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	11,300		42.2	8.14	1
06944	Antimony	7440-36-0	4.22	U	4.22	0.528	1
06935	Arsenic	7440-38-2	4.01	J	4.22	0.348	1
06946	Barium	7440-39-3	70.4		1.06	0.0348	1
06947	Beryllium	7440-41-7	0.490	J	1.06	0.0707	1
07914	Boron	7440-42-8	2.52	J	10.6	0.876	1
06949	Cadmium	7440-43-9	1.06	U	1.06	0.0348	1
01650	Calcium	7440-70-2	5,380		21.1	4.24	1
06951	Chromium	7440-47-3	14.3		3.17	0.0929	1
06952	Cobalt	7440-48-4	3.77		1.06	0.0950	1
06953	Copper	7440-50-8	7.27		2.11	0.190	1
01654	Iron	7439-89-6	19,000		42.2	4.01	1
06955	Lead	7439-92-1	4.20		3.17	0.496	1
01656	Lithium	7439-93-2	20.4		4.2	0.58	1
01657	Magnesium	7439-95-4	3,960		10.6	1.83	1
06958	Manganese	7439-96-5	258		1.06	0.0876	1
06960	Molybdenum	7439-98-7	0.912	J	2.11	0.179	1
06961	Nickel	7440-02-0	9.34		2.11	0.116	1
10145	Phosphorus	7723-14-0	513		10.6	0.538	1
01662	Potassium	7440-09-7	2,560		106	14.2	1
01667	Sodium	7440-23-5	111		106	17.6	1
06969	Tin	7440-31-5	2.76	J	10.6	0.232	1
06970	Titanium	7440-32-6	926		1.06	0.179	1
06971	Vanadium	7440-62-2	42.4		1.06	0.116	1
06972	Zinc	7440-66-6	50.2		4.22	0.211	1
10146	Zirconium	7440-67-7	3.19	J	5.28	0.876	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.137	J	0.422	0.106	2
06142	Silver	7440-22-4	0.0320	J	0.211	0.0211	2
06144	Strontium	7440-24-6	23.9		0.422	0.0359	2
06145	Thallium	7440-28-0	0.303		0.211	0.0317	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0177	U	0.0177	0.0106	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045D	n.a.	8.25		0.0100	0.0100	1
	The pH was measured in water at 22.2 C.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	7.1		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-524-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7081068
LLI Group # 1394643
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/04/2013 13:10 by VC

Submitted: 06/05/2013 09:20
Reported: 06/21/2013 16:43

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

52400 SDG#: PH046-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0213 JBQ	1.04	0.0173	1
11031	12378-PeCDD	40321-76-4	0.0892 JB	5.22	0.0219	1
11031	123478-HxCDD	39227-28-6	0.0453 JB	5.22	0.0201	1
11031	123678-HxCDD	57653-85-7	0.171 JB	5.22	0.0212	1
11031	123789-HxCDD	19408-74-3	0.108 JB	5.22	0.0198	1
11031	1234678-HpCDD	35822-46-9	2.69 JB	5.22	0.0243	1
11031	OCDD	3268-87-9	41.0 B	10.4	0.0295	1
11031	2378-TCDF	51207-31-9	0.0282 J	1.04	0.0207	1
11031	12378-PeCDF	57117-41-6	0.646 JB	5.22	0.0143	1
11031	23478-PeCDF	57117-31-4	0.0763 JBQ	5.22	0.0129	1
11031	123478-HxCDF	70648-26-9	0.0973 JBQ	5.22	0.0136	1
11031	123678-HxCDF	57117-44-9	0.129 JBQ	5.22	0.0131	1
11031	123789-HxCDF	72918-21-9	0.122 JB	5.22	0.0141	1
11031	234678-HxCDF	60851-34-5	0.177 JB	5.22	0.0125	1
11031	1234678-HpCDF	67562-39-4	0.644 JB	5.22	0.0111	1
11031	1234789-HpCDF	55673-89-7	0.0837 JB	5.22	0.0127	1
11031	OCDF	39001-02-0	1.19 JB	10.4	0.0188	1
Toxic Equivalents	**EPA 1613B**		ng/kg	ng/kg	ng/kg	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.221			1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	82	25 - 164
13C12-12378-PeCDD	85	25 - 181
13C12-123478-HxCDD	84	32 - 141
13C12-123678-HxCDD	84	28 - 130
13C12-123789-HxCDD	84	28 - 130
13C12-1234678-HpCDD	85	23 - 140
13C12-OCDD	87	17 - 157
13C12-2378-TCDF	83	24 - 169
13C12-12378-PeCDF	87	24 - 185
13C12-23478-PeCDF	89	21 - 178
13C12-123478-HxCDF	90	26 - 152
13C12-123678-HxCDF	90	26 - 123
13C12-234678-HxCDF	90	28 - 136
13C12-123789-HxCDF	90	29 - 147
13C12-1234678-HpCDF	94	28 - 143
13C12-1234789-HpCDF	91	26 - 138
13C12-OCDF	91	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration

*=This limit was used in the evaluation of the final result

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Analysis Report

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Sample Description: SL-524-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7081068
LLI Group # 1394643
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/04/2013 13:10 by VC

Submitted: 06/05/2013 09:20
Reported: 06/21/2013 16:43

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

52400 SDG#: PH046-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-524-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7081068
LLI Group # 1394643
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/04/2013 13:10 by VC

Submitted: 06/05/2013 09:20
Reported: 06/21/2013 16:43

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

52400 SDG#: PH046-08

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13158SLC026	06/13/2013	02:57	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	13158SLC026	06/07/2013	17:50	Sally L Appleyard	1
10592	19a PCBs and PCTs 8082A	SW-846 8082A	1	131620008A	06/12/2013	14:43	Monica M Souders	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	131620008A	06/11/2013	18:30	Sally L Appleyard	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	131610003A	06/12/2013	15:10	Heather E Williams	2
12959	EFH soil ext.(microwave)	SW-846 3546	1	131610003A	06/10/2013	13:45	David S Schrum	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13163006	06/15/2013	16:34	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13163006	06/12/2013	13:00	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010C	1	131640637001	06/17/2013	02:57	Tara L Snyder	1
06944	Antimony	SW-846 6010C	1	131640637001	06/17/2013	02:57	Tara L Snyder	1
06935	Arsenic	SW-846 6010C	1	131640637001	06/17/2013	02:57	Tara L Snyder	1
06946	Barium	SW-846 6010C	1	131640637001	06/17/2013	02:57	Tara L Snyder	1
06947	Beryllium	SW-846 6010C	1	131640637001	06/17/2013	02:57	Tara L Snyder	1
07914	Boron	SW-846 6010C	1	131640637001	06/17/2013	02:57	Tara L Snyder	1
06949	Cadmium	SW-846 6010C	1	131640637001	06/17/2013	02:57	Tara L Snyder	1
01650	Calcium	SW-846 6010C	1	131640637001	06/17/2013	02:57	Tara L Snyder	1
06951	Chromium	SW-846 6010C	1	131640637001	06/17/2013	02:57	Tara L Snyder	1
06952	Cobalt	SW-846 6010C	1	131640637001	06/17/2013	02:57	Tara L Snyder	1
06953	Copper	SW-846 6010C	1	131640637001	06/17/2013	02:57	Tara L Snyder	1
01654	Iron	SW-846 6010C	1	131640637001	06/17/2013	02:57	Tara L Snyder	1
06955	Lead	SW-846 6010C	1	131640637001	06/17/2013	02:57	Tara L Snyder	1
01656	Lithium	SW-846 6010C	1	131640637001	06/17/2013	02:57	Tara L Snyder	1
01657	Magnesium	SW-846 6010C	1	131640637001	06/17/2013	02:57	Tara L Snyder	1
06958	Manganese	SW-846 6010C	1	131640637001	06/17/2013	02:57	Tara L Snyder	1
06960	Molybdenum	SW-846 6010C	1	131640637001	06/17/2013	02:57	Tara L Snyder	1
06961	Nickel	SW-846 6010C	1	131640637001	06/17/2013	02:57	Tara L Snyder	1
10145	Phosphorus	SW-846 6010C	1	131640637001	06/17/2013	02:57	Tara L Snyder	1
01662	Potassium	SW-846 6010C	1	131640637001	06/17/2013	02:57	Tara L Snyder	1
01667	Sodium	SW-846 6010C	1	131640637001	06/17/2013	02:57	Tara L Snyder	1
06969	Tin	SW-846 6010C	1	131640637001	06/17/2013	02:57	Tara L Snyder	1
06970	Titanium	SW-846 6010C	1	131640637001	06/17/2013	02:57	Tara L Snyder	1
06971	Vanadium	SW-846 6010C	1	131640637001	06/17/2013	02:57	Tara L Snyder	1
06972	Zinc	SW-846 6010C	1	131640637001	06/17/2013	02:57	Tara L Snyder	1
10146	Zirconium	SW-846 6010C	1	131640637001	06/17/2013	02:57	Tara L Snyder	1
06141	Selenium	SW-846 6020A	1	131640637001B	06/17/2013	11:34	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	131640637001A	06/17/2013	11:34	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	131640637001A	06/17/2013	11:34	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	131640637001A	06/17/2013	11:34	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-524-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7081068
LLI Group # 1394643
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/04/2013 13:10 by VC

Submitted: 06/05/2013 09:20
Reported: 06/21/2013 16:43

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

52400 SDG#: PH046-08

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00159	3a Mercury 7471A	SW-846 7471B	1	131640638001	06/16/2013 06:48	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	131640637001	06/15/2013 11:34	Annamaria Stipkovits	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	131640638001	06/15/2013 14:50	Annamaria Stipkovits	1
00394	15a pH by 9045D	SW-846 9045D modified	1	13156039401B	06/05/2013 21:00	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13162162401B	06/11/2013 23:07	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-924-SA7-SB-1.0-2.0 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7081069
LLI Group # 1394643
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/04/2013 13:30 by VC

Submitted: 06/05/2013 09:20
Reported: 06/21/2013 16:43

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

92410 SDG#: PH046-09

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.8	U	1.8	0.72	1
12969	Acenaphthylene	208-96-8	1.8	U	1.8	0.36	1
12969	Anthracene	120-12-7	1.8	U	1.8	0.36	1
12969	Benzo(a)anthracene	56-55-3	1.3	J	1.8	0.72	1
12969	Benzo(a)pyrene	50-32-8	1.7	J	1.8	0.72	1
12969	Benzo(b)fluoranthene	205-99-2	3.7		1.8	0.72	1
12969	Benzo(e)pyrene	192-97-2	8.0	J	18	3.6	1
12969	Benzo(g,h,i)perylene	191-24-2	1.0	J	1.8	0.72	1
12969	Benzo(k)fluoranthene	207-08-9	1.8	J	1.8	0.72	1
12969	Butylbenzylphthalate	85-68-7	20	U	20	6.5	1
12969	Di-n-butylphthalate	84-74-2	20	U	20	6.5	1
12969	Chrysene	218-01-9	8.6		1.8	0.36	1
12969	Dibenz(a,h)anthracene	53-70-3	1.8	U	1.8	0.72	1
12969	Diethylphthalate	84-66-2	20	U	20	6.5	1
12969	Dimethylphthalate	131-11-3	20	U	20	6.5	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	20	U	20	6.5	1
12969	Fluoranthene	206-44-0	1.1	J	1.8	0.72	1
12969	Fluorene	86-73-7	1.8	U	1.8	0.72	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.8	U	1.8	0.72	1
12969	1-Methylnaphthalene	90-12-0	1.8	U	1.8	0.72	1
12969	2-Methylnaphthalene	91-57-6	1.8	U	1.8	0.72	1
12969	Naphthalene	91-20-3	1.8	U	1.8	0.72	1
12969	N-Nitrosodimethylamine	62-75-9	1.8	U	1.8	0.72	1
12969	Di-n-octylphthalate	117-84-0	20	U	20	6.5	1
12969	Phenanthrene	85-01-8	3.7		1.8	0.72	1
12969	Pyrene	129-00-0	4.6		1.8	0.72	1
GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	1.0	U	1.0	0.2	23.41
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
10592	Aroclor 5432	63496-31-1	36	U	36	11	1
10592	Aroclor 5442	12642-23-8	36	U	36	11	1
10592	Aroclor 5460	11126-42-4	36	U	36	11	1
10592	PCB-1016	12674-11-2	18	U	18	3.6	1
10592	PCB-1221	11104-28-2	18	U	18	5.5	1
10592	PCB-1232	11141-16-5	18	U	18	4.4	1
10592	PCB-1242	53469-21-9	18	U	18	4.4	1
10592	PCB-1248	12672-29-6	18	U	18	3.6	1
10592	PCB-1254	11097-69-1	18	U	18	4.8	1
10592	PCB-1260	11096-82-5	18	U	18	4.2	1
10592	PCB-1262	37324-23-5	18	U	18	3.6	1
10592	PCB-1268	11100-14-4	18	U	18	3.6	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.4	U	5.4	2.2	1
12952	EFH (C15-C20)	n.a.	5.4	U	5.4	2.2	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-924-SA7-SB-1.0-2.0 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7081069
LLI Group # 1394643
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/04/2013 13:30 by VC

Submitted: 06/05/2013 09:20
Reported: 06/21/2013 16:43

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

92410 SDG#: PH046-09

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C21-C30)	n.a.	14		5.4	2.2	1
12952	EFH (C30-C40)	n.a.	36		11	4.3	1
12952	EFH (C8-C11)	n.a.	5.4	U	5.4	2.2	1
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	13,300		42.5	8.19	1
06944	Antimony	7440-36-0	4.25	U	4.25	0.531	1
06935	Arsenic	7440-38-2	4.15	J	4.25	0.351	1
06946	Barium	7440-39-3	78.6		1.06	0.0351	1
06947	Beryllium	7440-41-7	0.518	J	1.06	0.0712	1
07914	Boron	7440-42-8	2.31	J	10.6	0.882	1
06949	Cadmium	7440-43-9	0.363	J	1.06	0.0351	1
01650	Calcium	7440-70-2	3,310		21.2	4.27	1
06951	Chromium	7440-47-3	17.8		3.19	0.0935	1
06952	Cobalt	7440-48-4	4.93		1.06	0.0956	1
06953	Copper	7440-50-8	10.1	J	10.6	0.956	5
01654	Iron	7439-89-6	21,500		42.5	4.04	1
06955	Lead	7439-92-1	5.95		3.19	0.499	1
01656	Lithium	7439-93-2	27.0		4.2	0.58	1
01657	Magnesium	7439-95-4	4,600		10.6	1.84	1
06958	Manganese	7439-96-5	269		1.06	0.0882	1
06960	Molybdenum	7439-98-7	0.422	J	2.12	0.181	1
06961	Nickel	7440-02-0	8.12		2.12	0.117	1
10145	Phosphorus	7723-14-0	410		10.6	0.542	1
01662	Potassium	7440-09-7	2,870		106	14.3	1
01667	Sodium	7440-23-5	132		106	17.7	1
06969	Tin	7440-31-5	3.11	J	10.6	0.234	1
06970	Titanium	7440-32-6	1,250		1.06	0.181	1
06971	Vanadium	7440-62-2	34.2		1.06	0.117	1
06972	Zinc	7440-66-6	54.3		4.25	0.212	1
10146	Zirconium	7440-67-7	1.01	J	5.31	0.882	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.425	U	0.425	0.106	2
06142	Silver	7440-22-4	0.0230	J	0.212	0.0212	2
06144	Strontium	7440-24-6	15.4		0.425	0.0361	2
06145	Thallium	7440-28-0	0.228		0.212	0.0319	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0178	U	0.0178	0.0107	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045D	n.a.	8.30		0.0100	0.0100	1
	The pH was measured in water at 21.8 C.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	7.7		0.10	0.10	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-924-SA7-SB-1.0-2.0 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7081069
LLI Group # 1394643
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/04/2013 13:30 by VC

Submitted: 06/05/2013 09:20
Reported: 06/21/2013 16:43

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

92410 SDG#: PH046-09

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Wet Chemistry	**EPA 160.3 modified**		%	%	%	

Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-924-SA7-SB-1.0-2.0 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7081069
LLI Group # 1394643
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/04/2013 13:30 by VC

Submitted: 06/05/2013 09:20
Reported: 06/21/2013 16:43

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

92410 SDG#: PH046-09

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	1.07	U	1.07	0.0181	1
11031	12378-PeCDD	40321-76-4	0.0567	JB	5.37	0.0207	1
11031	123478-HxCDD	39227-28-6	0.0417	JBQ	5.37	0.0166	1
11031	123678-HxCDD	57653-85-7	0.0499	JB	5.37	0.0179	1
11031	123789-HxCDD	19408-74-3	0.0755	JBQ	5.37	0.0163	1
11031	1234678-HpCDD	35822-46-9	0.270	JB	5.37	0.0184	1
11031	OCDD	3268-87-9	2.71	JB	10.7	0.0223	1
11031	2378-TCDF	51207-31-9	0.0139	J	1.07	0.0124	1
11031	12378-PeCDF	57117-41-6	0.0904	JBQ	5.37	0.00986	1
11031	23478-PeCDF	57117-31-4	0.0338	JB	5.37	0.00910	1
11031	123478-HxCDF	70648-26-9	0.0488	JBQ	5.37	0.00856	1
11031	123678-HxCDF	57117-44-9	0.0296	JBQ	5.37	0.00823	1
11031	123789-HxCDF	72918-21-9	0.0603	JBQ	5.37	0.00888	1
11031	234678-HxCDF	60851-34-5	0.0408	JB	5.37	0.00791	1
11031	1234678-HpCDF	67562-39-4	0.0678	JB	5.37	0.00813	1
11031	1234789-HpCDF	55673-89-7	0.0329	JBQ	5.37	0.0105	1
11031	OCDF	39001-02-0	0.135	JB	10.7	0.0215	1
Toxic Equivalents	**EPA 1613B**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.0816				1

Labeled Compounds	**%Rec**	**Windows**
13C12-2378-TCDD	81	25 - 164
13C12-12378-PeCDD	83	25 - 181
13C12-123478-HxCDD	84	32 - 141
13C12-123678-HxCDD	84	28 - 130
13C12-123789-HxCDD	84	28 - 130
13C12-1234678-HpCDD	87	23 - 140
13C12-OCDD	88	17 - 157
13C12-2378-TCDF	78	24 - 169
13C12-12378-PeCDF	85	24 - 185
13C12-23478-PeCDF	85	21 - 178
13C12-123478-HxCDF	89	26 - 152
13C12-123678-HxCDF	91	26 - 123
13C12-234678-HxCDF	89	28 - 136
13C12-123789-HxCDF	91	29 - 147
13C12-1234678-HpCDF	98	28 - 143
13C12-1234789-HpCDF	89	26 - 138
13C12-OCDF	90	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-924-SA7-SB-1.0-2.0 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7081069
LLI Group # 1394643
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/04/2013 13:30 by VC

Submitted: 06/05/2013 09:20
Reported: 06/21/2013 16:43

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

92410 SDG#: PH046-09

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

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2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Analysis Report

Sample Description: SL-924-SA7-SB-1.0-2.0 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7081069
LLI Group # 1394643
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/04/2013 13:30 by VC

Submitted: 06/05/2013 09:20
Reported: 06/21/2013 16:43

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

92410 SDG#: PH046-09

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13158SLC026	06/13/2013	03:30	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	13158SLC026	06/07/2013	17:50	Sally L Appleyard	1
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	13160A16A	06/09/2013	22:23	Laura M Krieger	23.41
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201315631319	06/05/2013	14:21	Mitchell R Washel	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201315631319	06/05/2013	14:22	Mitchell R Washel	n.a.
10592	19a PCBs and PCTs 8082A	SW-846 8082A	1	131620008A	06/12/2013	15:02	Monica M Souders	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	131620008A	06/11/2013	18:30	Sally L Appleyard	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	131610003A	06/12/2013	06:23	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	131610003A	06/10/2013	13:45	David S Schrum	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13163006	06/15/2013	17:31	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13163006	06/12/2013	13:00	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010C	1	131600637003	06/12/2013	20:52	Katlin N Cataldi	1
06944	Antimony	SW-846 6010C	1	131600637003	06/12/2013	20:52	Katlin N Cataldi	1
06935	Arsenic	SW-846 6010C	1	131600637003	06/12/2013	20:52	Katlin N Cataldi	1
06946	Barium	SW-846 6010C	1	131600637003	06/12/2013	20:52	Katlin N Cataldi	1
06947	Beryllium	SW-846 6010C	1	131600637003	06/12/2013	20:52	Katlin N Cataldi	1
07914	Boron	SW-846 6010C	1	131600637003	06/12/2013	20:52	Katlin N Cataldi	1
06949	Cadmium	SW-846 6010C	1	131600637003	06/12/2013	20:52	Katlin N Cataldi	1
01650	Calcium	SW-846 6010C	1	131600637003	06/12/2013	20:52	Katlin N Cataldi	1
06951	Chromium	SW-846 6010C	1	131600637003	06/12/2013	20:52	Katlin N Cataldi	1
06952	Cobalt	SW-846 6010C	1	131600637003	06/12/2013	20:52	Katlin N Cataldi	1
06953	Copper	SW-846 6010C	1	131600637003	06/14/2013	05:12	Tara L Snyder	5
01654	Iron	SW-846 6010C	1	131600637003	06/12/2013	20:52	Katlin N Cataldi	1
06955	Lead	SW-846 6010C	1	131600637003	06/12/2013	20:52	Katlin N Cataldi	1
01656	Lithium	SW-846 6010C	1	131600637003	06/12/2013	20:52	Katlin N Cataldi	1
01657	Magnesium	SW-846 6010C	1	131600637003	06/12/2013	20:52	Katlin N Cataldi	1
06958	Manganese	SW-846 6010C	1	131600637003	06/12/2013	20:52	Katlin N Cataldi	1
06960	Molybdenum	SW-846 6010C	1	131600637003	06/12/2013	20:52	Katlin N Cataldi	1
06961	Nickel	SW-846 6010C	1	131600637003	06/12/2013	20:52	Katlin N Cataldi	1
10145	Phosphorus	SW-846 6010C	1	131600637003	06/12/2013	20:52	Katlin N Cataldi	1
01662	Potassium	SW-846 6010C	1	131600637003	06/12/2013	20:52	Katlin N Cataldi	1
01667	Sodium	SW-846 6010C	1	131600637003	06/12/2013	20:52	Katlin N Cataldi	1
06969	Tin	SW-846 6010C	1	131600637003	06/12/2013	20:52	Katlin N Cataldi	1
06970	Titanium	SW-846 6010C	1	131600637003	06/12/2013	20:52	Katlin N Cataldi	1
06971	Vanadium	SW-846 6010C	1	131600637003	06/12/2013	20:52	Katlin N Cataldi	1
06972	Zinc	SW-846 6010C	1	131600637003	06/12/2013	20:52	Katlin N Cataldi	1
10146	Zirconium	SW-846 6010C	1	131600637003	06/12/2013	20:52	Katlin N Cataldi	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-924-SA7-SB-1.0-2.0 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7081069
LLI Group # 1394643
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/04/2013 13:30 by VC

Submitted: 06/05/2013 09:20
Reported: 06/21/2013 16:43

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

92410 SDG#: PH046-09

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06141	Selenium	SW-846 6020A	1	131600637003B	06/11/2013 20:06	David K Beck	2
06142	Silver	SW-846 6020A	1	131600637003A	06/11/2013 20:06	David K Beck	2
06144	Strontium	SW-846 6020A	1	131600637003A	06/11/2013 20:06	David K Beck	2
06145	Thallium	SW-846 6020A	1	131600637003A	06/11/2013 20:06	David K Beck	2
00159	3a Mercury 7471A	SW-846 7471B	1	131640638001	06/16/2013 06:50	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	131600637003	06/11/2013 00:03	Annamaria Stipkovits	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	131640638001	06/15/2013 14:50	Annamaria Stipkovits	1
00394	15a pH by 9045D	SW-846 9045D modified	1	13156039401B	06/05/2013 21:00	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13162162401B	06/11/2013 23:07	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: TB-060413 Water
SSFL Phase 3 Subarea 7

LLI Sample # WW 7081070
LLI Group # 1394643
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/04/2013 08:00

Submitted: 06/05/2013 09:20
Reported: 06/21/2013 16:43

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

604TB SDG#: PH046-10TB*

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC Volatiles	**TPH GRO SW-8015B**		ug/l		ug/l	ug/l	
08229	TPH-GRO S.CA water C5-C12	n.a.	50	U	50	20	1

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08229	11b TPH by EPA 8015B GRO	TPH GRO SW-8015B	1	13162B20A	06/11/2013 23:24	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	13162B20A	06/11/2013 23:24	Marie D John	1

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1394643
Reported: 06/21/13 at 04:43 PM

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 13158SLB026	Sample number(s): 7081058-7081060,7081062-7081063									
Acenaphthene	1.7	U	1.7	0.67	ug/kg	91		69-114		
Acenaphthylene	1.7	U	1.7	0.33	ug/kg	92		71-113		
Anthracene	1.7	U	1.7	0.33	ug/kg	79		75-116		
Benzo(a)anthracene	1.7	U	1.7	0.67	ug/kg	106		76-115		
Benzo(a)pyrene	1.7	U	1.7	0.67	ug/kg	107		76-117		
Benzo(b)fluoranthene	1.7	U	1.7	0.67	ug/kg	120		77-129		
Benzo(e)pyrene	17	U	17.	3.3	ug/kg	98		70-130		
Benzo(g,h,i)perylene	1.7	U	1.7	0.67	ug/kg	79		64-120		
Benzo(k)fluoranthene	1.7	U	1.7	0.67	ug/kg	103		71-120		
Butylbenzylphthalate	18	U	18.	6.0	ug/kg	84		65-131		
Di-n-butylphthalate	18	U	18.	6.0	ug/kg	91		67-140		
Chrysene	1.7	U	1.7	0.33	ug/kg	102		78-111		
Dibenz(a,h)anthracene	1.7	U	1.7	0.67	ug/kg	87		65-124		
Diethylphthalate	18	U	18.	6.0	ug/kg	101		68-125		
Dimethylphthalate	18	U	18.	6.0	ug/kg	106		70-130		
Bis(2-Ethylhexyl)phthalate	18	U	18.	6.0	ug/kg	85		67-143		
Fluoranthene	1.7	U	1.7	0.67	ug/kg	105		68-119		
Fluorene	1.7	U	1.7	0.67	ug/kg	102		75-123		
Indeno(1,2,3-cd)pyrene	1.7	U	1.7	0.67	ug/kg	86		66-122		
1-Methylnaphthalene	1.7	U	1.7	0.67	ug/kg	90		74-113		
2-Methylnaphthalene	1.7	U	1.7	0.67	ug/kg	87		78-121		
Naphthalene	1.7	U	1.7	0.67	ug/kg	95		64-120		
N-Nitrosodimethylamine	1.7	U	1.7	0.67	ug/kg	92		30-125		
Di-n-octylphthalate	18	U	18.	6.0	ug/kg	87		57-133		
Phenanthrene	1.7	U	1.7	0.67	ug/kg	93		72-110		
Pyrene	1.7	U	1.7	0.67	ug/kg	95		71-120		
Batch number: 13158SLC026	Sample number(s): 7081064-7081066,7081068-7081069									
Acenaphthene	1.7	U	1.7	0.67	ug/kg	96		69-114		
Acenaphthylene	1.7	U	1.7	0.33	ug/kg	92		71-113		
Anthracene	1.7	U	1.7	0.33	ug/kg	96		75-116		
Benzo(a)anthracene	1.7	U	1.7	0.67	ug/kg	108		76-115		
Benzo(a)pyrene	1.7	U	1.7	0.67	ug/kg	104		76-117		
Benzo(b)fluoranthene	1.7	U	1.7	0.67	ug/kg	114		77-129		
Benzo(e)pyrene	17	U	17.	3.3	ug/kg	96		70-130		
Benzo(g,h,i)perylene	1.7	U	1.7	0.67	ug/kg	104		64-120		
Benzo(k)fluoranthene	1.7	U	1.7	0.67	ug/kg	101		71-120		
Butylbenzylphthalate	18	U	18.	6.0	ug/kg	89		65-131		
Di-n-butylphthalate	18	U	18.	6.0	ug/kg	95		67-140		
Chrysene	1.7	U	1.7	0.33	ug/kg	103		78-111		
Dibenz(a,h)anthracene	1.7	U	1.7	0.67	ug/kg	105		65-124		
Diethylphthalate	18	U	18.	6.0	ug/kg	101		68-125		
Dimethylphthalate	18	U	18.	6.0	ug/kg	105		70-130		

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1394643
Reported: 06/21/13 at 04:43 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Bis(2-Ethylhexyl)phthalate	18	U	18.	6.0	ug/kg	92		67-143		
Fluoranthene	1.7	U	1.7	0.67	ug/kg	103		68-119		
Fluorene	1.7	U	1.7	0.67	ug/kg	98		75-123		
Indeno(1,2,3-cd)pyrene	1.7	U	1.7	0.67	ug/kg	105		66-122		
1-Methylnaphthalene	1.7	U	1.7	0.67	ug/kg	89		74-113		
2-Methylnaphthalene	1.7	U	1.7	0.67	ug/kg	86		78-121		
Naphthalene	1.7	U	1.7	0.67	ug/kg	93		64-120		
N-Nitrosodimethylamine	1.7	U	1.7	0.67	ug/kg	98		30-125		
Di-n-octylphthalate	18	U	18.	6.0	ug/kg	90		57-133		
Phenanthrene	1.7	U	1.7	0.67	ug/kg	92		72-110		
Pyrene	1.7	U	1.7	0.67	ug/kg	97		71-120		
Batch number: 13160A16A	Sample number(s): 7081064-7081066,7081069									
11a TPH by EPA 8015B GRO	1.0	U	1.0	0.2	mg/kg	91		67-119		
Batch number: 13162B20A	Sample number(s): 7081070									
TPH-GRO S.CA water C5-C12	50	U	50.	20	ug/l	105	101	75-135	4	30
Batch number: 131580010A	Sample number(s): 7081055-7081060									
Aroclor 5432	33	U	33.	10	ug/kg					
Aroclor 5442	33	U	33.	10	ug/kg	75	78	36-106	4	30
Aroclor 5460	33	U	33.	10	ug/kg					
PCB-1016	17	U	17.	3.3	ug/kg	96		80-120		
PCB-1221	17	U	17.	5.1	ug/kg					
PCB-1232	17	U	17.	4.1	ug/kg					
PCB-1242	17	U	17.	4.1	ug/kg					
PCB-1248	17	U	17.	3.3	ug/kg					
PCB-1254	17	U	17.	4.4	ug/kg					
PCB-1260	17	U	17.	3.9	ug/kg	96		72-120		
PCB-1262	17	U	17.	3.3	ug/kg					
PCB-1268	17	U	17.	3.3	ug/kg					
Batch number: 131620008A	Sample number(s): 7081062-7081066,7081068-7081069									
Aroclor 5432	33	U	33.	10	ug/kg					
Aroclor 5442	33	U	33.	10	ug/kg	75	73	36-106	3	30
Aroclor 5460	33	U	33.	10	ug/kg					
PCB-1016	17	U	17.	3.3	ug/kg	101		80-120		
PCB-1221	17	U	17.	5.1	ug/kg					
PCB-1232	17	U	17.	4.1	ug/kg					
PCB-1242	17	U	17.	4.1	ug/kg					
PCB-1248	17	U	17.	3.3	ug/kg					
PCB-1254	17	U	17.	4.4	ug/kg					
PCB-1260	17	U	17.	3.9	ug/kg	103		72-120		
PCB-1262	17	U	17.	3.3	ug/kg					
PCB-1268	17	U	17.	3.3	ug/kg					
Batch number: 131620099A	Sample number(s): 7081058-7081060,7081062									
Aldrin	0.83	U	0.83	0.17	ug/kg	98		73-119		
Alpha BHC	0.83	U	0.83	0.17	ug/kg	104		72-126		
Beta BHC	1.9	U	1.9	0.96	ug/kg	99		76-123		
Gamma BHC - Lindane	0.83	U	0.83	0.17	ug/kg	104		72-128		
Chlordane	17	U	17.	4.0	ug/kg					
p,p-DDD	1.7	U	1.7	0.33	ug/kg	104		76-138		
p,p-DDE	1.7	U	1.7	0.33	ug/kg	104		76-126		
p,p-DDT	1.7	U	1.7	0.35	ug/kg	105		72-131		
Delta BHC	0.83	U	0.83	0.45	ug/kg	102		73-128		

*- Outside of specification
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(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1394643
Reported: 06/21/13 at 04:43 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Dieldrin	1.7	U	1.7	0.33	ug/kg	114		78-135		
Endosulfan I	0.83	U	0.83	0.22	ug/kg	104		62-125		
Endosulfan II	1.7	U	1.7	0.33	ug/kg	102		68-128		
Endosulfan Sulfate	1.7	U	1.7	0.33	ug/kg	104		72-138		
Endrin	1.7	U	1.7	0.33	ug/kg	104		75-130		
Endrin Aldehyde	1.7	U	1.7	0.33	ug/kg	95		55-132		
Endrin Ketone	1.8	U	1.8	0.60	ug/kg	101		74-127		
Heptachlor	0.83	U	0.83	0.17	ug/kg	98		69-125		
Heptachlor Epoxide	0.83	U	0.83	0.17	ug/kg	101		78-125		
Methoxychlor	6.7	U	6.7	1.7	ug/kg	102		59-125		
Mirex	1.7	U	1.7	0.35	ug/kg					
Toxaphene	33	U	33.	14	ug/kg					
Batch number: 131580013A	Sample number(s): 7081058-7081060,7081062-7081063									
EFH (C12-C14)	5.0	U	5.0	2.0	mg/kg	97		70-123		
EFH (C15-C20)	5.0	U	5.0	2.0	mg/kg	103		75-128		
EFH (C21-C30)	5.0	U	5.0	2.0	mg/kg	101		64-134		
EFH (C30-C40)	10	U	10.	4.0	mg/kg	93		65-128		
EFH (C8-C11)	5.0	U	5.0	2.0	mg/kg	76		49-107		
Batch number: 131610003A	Sample number(s): 7081064-7081066,7081068-7081069									
EFH (C12-C14)	5.0	U	5.0	2.0	mg/kg	94		70-123		
EFH (C15-C20)	5.0	U	5.0	2.0	mg/kg	100		75-128		
EFH (C21-C30)	5.0	U	5.0	2.0	mg/kg	97		64-134		
EFH (C30-C40)	10	U	10.	4.0	mg/kg	104		65-128		
EFH (C8-C11)	5.0	U	5.0	2.0	mg/kg	71		49-107		
Batch number: 131600637001	Sample number(s): 7081058-7081063									
Aluminum	40.0	U	40.0	7.71	mg/kg	100		80-120		
Antimony	4.00	U	4.00	0.500	mg/kg	104		80-120		
Arsenic	4.00	U	4.00	0.330	mg/kg	103		80-120		
Barium	1.00	U	1.00	0.0330	mg/kg	104		80-120		
Beryllium	1.00	U	1.00	0.0670	mg/kg	103		80-120		
Boron	10.0	U	10.0	0.830	mg/kg	99		80-120		
Cadmium	1.00	U	1.00	0.0330	mg/kg	104		80-120		
Calcium	11.1	J	20.0	4.02	mg/kg	102		80-120		
Chromium	3.00	U	3.00	0.0880	mg/kg	101		80-120		
Cobalt	1.00	U	1.00	0.0900	mg/kg	105		80-120		
Copper	2.00	U	2.00	0.180	mg/kg	109		80-120		
Iron	40.0	U	40.0	3.80	mg/kg	103		80-120		
Lead	3.00	U	3.00	0.470	mg/kg	106		80-120		
Lithium	4.0	U	4.0	0.55	mg/kg	103		80-120		
Magnesium	10.0	U	10.0	1.73	mg/kg	100		80-120		
Manganese	1.00	U	1.00	0.0830	mg/kg	104		80-120		
Molybdenum	2.00	U	2.00	0.170	mg/kg	103		80-120		
Nickel	2.00	U	2.00	0.110	mg/kg	106		80-120		
Phosphorus	1.14	J	10.0	0.510	mg/kg	106		80-120		
Potassium	100 U		100.	13.5	mg/kg	98		80-120		
Sodium	100 U		100.	16.7	mg/kg	100		80-120		
Tin	1.50	J	10.0	0.220	mg/kg	101		80-120		
Titanium	1.00	U	1.00	0.170	mg/kg	103		80-120		
Vanadium	1.00	U	1.00	0.110	mg/kg	99		80-120		
Zinc	4.00	U	4.00	0.200	mg/kg	104		80-120		
Zirconium	5.00	U	5.00	0.830	mg/kg	103		80-120		

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1394643
Reported: 06/21/13 at 04:43 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 131600637001A	Sample number(s): 7081058-7081063									
Silver	0.200	U	0.200	0.0200	mg/kg	103		80-120		
Strontium	0.0780	J	0.400	0.0340	mg/kg	101		80-120		
Thallium	0.200	U	0.200	0.0300	mg/kg	104		80-120		
Batch number: 131600637001B	Sample number(s): 7081058-7081063									
Selenium	0.400	U	0.400	0.100	mg/kg	100		80-120		
Batch number: 131600637003	Sample number(s): 7081064-7081067,7081069									
Aluminum	40.0	U	40.0	7.71	mg/kg	102		80-120		
Antimony	4.00	U	4.00	0.500	mg/kg	107		80-120		
Arsenic	4.00	U	4.00	0.330	mg/kg	103		80-120		
Barium	1.00	U	1.00	0.0330	mg/kg	104		80-120		
Beryllium	1.00	U	1.00	0.0670	mg/kg	103		80-120		
Boron	10.0	U	10.0	0.830	mg/kg	102		80-120		
Cadmium	1.00	U	1.00	0.0330	mg/kg	105		80-120		
Calcium	6.15	J	20.0	4.02	mg/kg	105		80-120		
Chromium	3.00	U	3.00	0.0880	mg/kg	104		80-120		
Cobalt	1.00	U	1.00	0.0900	mg/kg	105		80-120		
Copper	2.00	U	2.00	0.180	mg/kg	100		80-120		
Iron	4.39	J	40.0	3.80	mg/kg	102		80-120		
Lead	3.00	U	3.00	0.470	mg/kg	106		80-120		
Lithium	4.0	U	4.0	0.55	mg/kg	104		80-120		
Magnesium	10.0	U	10.0	1.73	mg/kg	104		80-120		
Manganese	1.00	U	1.00	0.0830	mg/kg	103		80-120		
Molybdenum	2.00	U	2.00	0.170	mg/kg	104		80-120		
Nickel	2.00	U	2.00	0.110	mg/kg	107		80-120		
Phosphorus	1.17	J	10.0	0.510	mg/kg	106		80-120		
Potassium	100 U		100.	13.5	mg/kg	100		80-120		
Sodium	100 U		100.	16.7	mg/kg	101		80-120		
Tin	1.43	J	10.0	0.220	mg/kg	103		80-120		
Titanium	1.00	U	1.00	0.170	mg/kg	104		80-120		
Vanadium	1.00	U	1.00	0.110	mg/kg	104		80-120		
Zinc	4.00	U	4.00	0.200	mg/kg	105		80-120		
Zirconium	5.00	U	5.00	0.830	mg/kg	104		80-120		
Batch number: 131600637003A	Sample number(s): 7081064-7081067,7081069									
Silver	0.200	U	0.200	0.0200	mg/kg	107		80-120		
Strontium	0.400	U	0.400	0.0340	mg/kg	106		80-120		
Thallium	0.200	U	0.200	0.0300	mg/kg	98		80-120		
Batch number: 131600637003B	Sample number(s): 7081064-7081067,7081069									
Selenium	0.400	U	0.400	0.100	mg/kg	113		80-120		
Batch number: 131600638002	Sample number(s): 7081058-7081063									
3a Mercury 7471A	0.0167	U	0.0167	0.0100	mg/kg	103		85-120		
Batch number: 131640637001	Sample number(s): 7081068									
Aluminum	8.46	J	40.0	7.71	mg/kg	101		80-120		
Antimony	4.00	U	4.00	0.500	mg/kg	106		80-120		
Arsenic	4.00	U	4.00	0.330	mg/kg	103		80-120		
Barium	1.00	U	1.00	0.0330	mg/kg	100		80-120		
Beryllium	1.00	U	1.00	0.0670	mg/kg	99		80-120		

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1394643
Reported: 06/21/13 at 04:43 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Boron	10.0	U	10.0	0.830	mg/kg	95		80-120		
Cadmium	1.00	U	1.00	0.0330	mg/kg	103		80-120		
Calcium	9.77	J	20.0	4.02	mg/kg	102		80-120		
Chromium	3.00	U	3.00	0.0880	mg/kg	101		80-120		
Cobalt	1.00	U	1.00	0.0900	mg/kg	104		80-120		
Copper	2.00	U	2.00	0.180	mg/kg	102		80-120		
Iron	40.0	U	40.0	3.80	mg/kg	102		80-120		
Lead	3.00	U	3.00	0.470	mg/kg	104		80-120		
Lithium	4.0	U	4.0	0.55	mg/kg	103		80-120		
Magnesium	10.0	U	10.0	1.73	mg/kg	100		80-120		
Manganese	1.00	U	1.00	0.0830	mg/kg	100		80-120		
Molybdenum	2.00	U	2.00	0.170	mg/kg	103		80-120		
Nickel	2.00	U	2.00	0.110	mg/kg	106		80-120		
Phosphorus	1.17	J	10.0	0.510	mg/kg	106		80-120		
Potassium	100 U		100.	13.5	mg/kg	97		80-120		
Sodium	100 U		100.	16.7	mg/kg	97		80-120		
Tin	1.48	J	10.0	0.220	mg/kg	102		80-120		
Titanium	1.00	U	1.00	0.170	mg/kg	101		80-120		
Vanadium	1.00	U	1.00	0.110	mg/kg	98		80-120		
Zinc	1.92	J	4.00	0.200	mg/kg	105		80-120		
Zirconium	5.00	U	5.00	0.830	mg/kg	104		80-120		
Batch number: 131640637001A	Sample number(s): 7081068									
Silver	0.200	U	0.200	0.0200	mg/kg	103		80-120		
Strontium	0.0566	J	0.400	0.0340	mg/kg	103		80-120		
Thallium	0.200	U	0.200	0.0300	mg/kg	105		80-120		
Batch number: 131640637001B	Sample number(s): 7081068									
Selenium	0.400	U	0.400	0.100	mg/kg	109		80-120		
Batch number: 131640638001	Sample number(s): 7081064-7081069									
3a Mercury 7471A	0.0167	U	0.0167	0.0100	mg/kg	96		85-120		
Batch number: 13156039401A	Sample number(s): 7081058,7081061-7081063									
15a pH by 9045D						100		95-105		
Batch number: 13156039401B	Sample number(s): 7081064,7081067-7081069									
15a pH by 9045D						100		95-105		
Batch number: 13162162401A	Sample number(s): 7081055-7081057,7081062-7081063									
14a Moisture Content by 160.3						100		80-120		
Batch number: 13162162401B	Sample number(s): 7081064-7081069									
14a Moisture Content by 160.3						100		80-120		
14a Moisture Content by 160.3						100		80-120		
14a Moisture Content by 160.3						100		80-120		
Batch number: 13163162401A	Sample number(s): 7081058-7081061									
14a Moisture Content by 160.3						100		80-120		
14a Moisture Content by 160.3						100		80-120		
14a Moisture Content by 160.3						100		80-120		

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1394643
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Analysis Name	Blank Result		Blank MRL**	Blank EDL	Report Units	OPR %REC	OPRD %REC	OPR/OPRD Limits	RPD	RPD Max
Batch number: 13163006	Sample number(s): 7081064-7081066,7081068-7081069									
2378-TCDD	0.0555	J	1.00	0.0213	ng/kg	95		67-158		
12378-PeCDD	0.0468	J	5.00	0.0192	ng/kg	100		70-142		
123478-HxCDD	0.0141	J	5.00	0.0121	ng/kg	106		70-164		
123678-HxCDD	0.0191	J	5.00	0.0132	ng/kg	105		76-134		
123789-HxCDD	0.0376	J	5.00	0.0129	ng/kg	105		64-162		
1234678-HpCDD	0.0612	J	5.00	0.0138	ng/kg	103		70-140		
OCDD	0.295	J	10.0	0.0136	ng/kg	103		78-144		
2378-TCDF	1.00	U	1.00	0.0154	ng/kg	104		75-158		
12378-PeCDF	0.0591	J	5.00	0.00970	ng/kg	103		80-134		
23478-PeCDF	0.0223	J	5.00	0.00940	ng/kg	105		68-160		
123478-HxCDF	0.0365	J	5.00	0.00700	ng/kg	108		72-134		
123678-HxCDF	0.0232	J	5.00	0.00670	ng/kg	104		84-130		
123789-HxCDF	0.0595	J	5.00	0.00810	ng/kg	106		78-130		
234678-HxCDF	0.0280	J	5.00	0.00660	ng/kg	106		70-156		
1234678-HpCDF	0.0525	J	5.00	0.00490	ng/kg	104		82-122		
1234789-HpCDF	0.0372	J	5.00	0.00750	ng/kg	104		78-138		
OCDF	0.0998	J	10.0	0.0166	ng/kg	104		63-170		
Batch number: 13168006	Sample number(s): 7081058-7081060,7081062-7081063									
2378-TCDD	1.00	U	1.00	0.0330	ng/kg	94		67-158		
12378-PeCDD	0.0664	J	5.00	0.0393	ng/kg	100		70-142		
123478-HxCDD	0.0408	J	5.00	0.0206	ng/kg	109		70-164		
123678-HxCDD	5.00	U	5.00	0.0217	ng/kg	101		76-134		
123789-HxCDD	0.0618	J	5.00	0.0201	ng/kg	104		64-162		
1234678-HpCDD	0.100	J	5.00	0.0237	ng/kg	101		70-140		
OCDD	0.342	J	10.0	0.0288	ng/kg	103		78-144		
2378-TCDF	0.0365	J	1.00	0.0355	ng/kg	100		75-158		
12378-PeCDF	0.0798	J	5.00	0.0213	ng/kg	103		80-134		
23478-PeCDF	0.0765	J	5.00	0.0218	ng/kg	103		68-160		
123478-HxCDF	0.0548	J	5.00	0.0115	ng/kg	106		72-134		
123678-HxCDF	5.00	U	5.00	0.0103	ng/kg	102		84-130		
123789-HxCDF	0.0712	J	5.00	0.0135	ng/kg	106		78-130		
234678-HxCDF	0.0700	J	5.00	0.0111	ng/kg	103		70-156		
1234678-HpCDF	0.0263	J	5.00	0.00670	ng/kg	102		82-122		
1234789-HpCDF	0.0600	J	5.00	0.0114	ng/kg	101		78-138		
OCDF	0.155	J	10.0	0.0310	ng/kg	103		63-170		
Batch number: 13163006	Sample number(s): 7081064-7081066,7081068-7081069									
TEQ WHO 2005 - EDLx0.0	0.0507				ng/kg					
Batch number: 13168006	Sample number(s): 7081058-7081060,7081062-7081063									
TEQ WHO 2005 - EDLx0.0	0.0289				ng/kg					

Sample Matrix Quality Control

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1394643
Reported: 06/21/13 at 04:43 PM

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 13158SLB026	Sample number(s): 7081058-7081060,7081062-7081063 UNSPK: 7081058								
Acenaphthene	106	109	48-127	3	30				
Acenaphthylene	88	92	49-121	5	30				
Anthracene	93	100	52-126	7	30				
Benzo(a)anthracene	108	123	32-135	12	30				
Benzo(a)pyrene	111	116	36-138	5	30				
Benzo(b)fluoranthene	143*	112	26-142	18	30				
Benzo(e)pyrene	161*	175*	70-130	9	30				
Benzo(g,h,i)perylene	59	61	33-141	3	30				
Benzo(k)fluoranthene	136*	133*	47-129	2	30				
Butylbenzylphthalate	0*	0*	59-153	0	30				
Di-n-butylphthalate	0*	0*	62-154	0	30				
Chrysene	107	101	29-148	3	30				
Dibenz(a,h)anthracene	70	75	34-125	7	30				
Diethylphthalate	0*	0*	76-127	0	30				
Dimethylphthalate	0*	0*	62-136	0	30				
Bis(2-Ethylhexyl)phthalate	0*	0*	39-167	0	30				
Fluoranthene	99	98	47-135	1	30				
Fluorene	97	99	50-129	2	30				
Indeno(1,2,3-cd)pyrene	72	70	17-136	2	30				
1-Methylnaphthalene	92	95	50-131	4	30				
2-Methylnaphthalene	91	94	28-144	3	30				
Naphthalene	104	107	31-148	3	30				
N-Nitrosodimethylamine	163*	136*	48-113	18	30				
Di-n-octylphthalate	192*	181*	52-162	6	30				
Phenanthrene	95	96	29-142	0	30				
Pyrene	100	90	26-143	9	30				
Batch number: 13158SLC026	Sample number(s): 7081064-7081066,7081068-7081069 UNSPK: 7081064								
Acenaphthene	103	87	48-127	17	30				
Acenaphthylene	96	84	49-121	13	30				
Anthracene	93	89	52-126	4	30				
Benzo(a)anthracene	148*	113	32-135	26	30				
Benzo(a)pyrene	98	93	36-138	6	30				
Benzo(b)fluoranthene	137	116	26-142	16	30				
Benzo(e)pyrene	134*	96	70-130	28	30				
Benzo(g,h,i)perylene	41	37	33-141	10	30				
Benzo(k)fluoranthene	123	115	47-129	7	30				
Butylbenzylphthalate	165*	113	59-153	37*	30				
Di-n-butylphthalate	108	93	62-154	14	30				
Chrysene	183*	116	29-148	40*	30				
Dibenz(a,h)anthracene	51	51	34-125	1	30				
Diethylphthalate	115	92	76-127	22	30				
Dimethylphthalate	123	100	62-136	20	30				
Bis(2-Ethylhexyl)phthalate	138	105	39-167	28	30				
Fluoranthene	120	104	47-135	14	30				
Fluorene	103	93	50-129	11	30				
Indeno(1,2,3-cd)pyrene	50	50	17-136	1	30				
1-Methylnaphthalene	99	90	50-131	10	30				
2-Methylnaphthalene	96	90	28-144	7	30				
Naphthalene	104	92	31-148	13	30				
N-Nitrosodimethylamine	112	94	48-113	17	30				
Di-n-octylphthalate	197*	152	52-162	26	30				
Phenanthrene	156*	106	29-142	35*	30				
Pyrene	149*	109	26-143	29	30				

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Quality Control Summary

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Reported: 06/21/13 at 04:43 PM

Sample Matrix Quality Control

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Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 13160A16A	Sample number(s): 7081064-7081066,7081069 UNSPK: 7081064								
11a TPH by EPA 8015B GRO	103	101	39-118	7	30				
Batch number: 131580010A	Sample number(s): 7081055-7081060 UNSPK: 7081058								
PCB-1016	81	92	16-146	12	50				
PCB-1260	68	85	40-134	21	50				
Batch number: 131620008A	Sample number(s): 7081062-7081066,7081068-7081069 UNSPK: 7081064								
PCB-1016	47	66	16-146	33	50				
PCB-1260	42	53	40-134	23	50				
Batch number: 131620099A	Sample number(s): 7081058-7081060,7081062 UNSPK: 7081058								
Aldrin	87	90	16-126	3	50				
Alpha BHC	91	92	14-140	1	50				
Beta BHC	84	85	10-173	1	50				
Gamma BHC - Lindane	92	95	30-137	3	50				
p,p-DDD	94	90	43-149	4	50				
p,p-DDE	95	92	18-161	3	50				
p,p-DDT	449*	61	12-193	111*	50				
Delta BHC	90	94	13-153	5	50				
Dieldrin	98	92	19-154	7	50				
Endosulfan I	78	84	16-137	6	50				
Endosulfan II	107	95	10-156	12	50				
Endosulfan Sulfate	98	91	10-181	7	50				
Endrin	92	92	30-152	0	50				
Endrin Aldehyde	60	71	10-152	17	35				
Endrin Ketone	79	85	10-160	8	50				
Heptachlor	86	91	16-152	5	50				
Heptachlor Epoxide	101	98	17-167	3	50				
Methoxychlor	93	94	34-168	0	50				
Batch number: 131580013A	Sample number(s): 7081058-7081060,7081062-7081063 UNSPK: 7081058								
EFH (C12-C14)	91	97	49-123	7	20				
EFH (C15-C20)	394*	444*	49-123	12	20				
EFH (C21-C30)	1639 (2)	2238 (2)	49-123	14	20				
EFH (C30-C40)	2997 (2)	5212 (2)	49-123	31*	20				
EFH (C8-C11)	74	82	49-123	11	20				
Batch number: 131610003A	Sample number(s): 7081064-7081066,7081068-7081069 UNSPK: 7081064								
EFH (C12-C14)	96	91	49-123	5	20				
EFH (C15-C20)	293*	270*	49-123	8	20				
EFH (C21-C30)	1322*	1646*	49-123	18	20				
EFH (C30-C40)	2447 (2)	2930 (2)	49-123	16	20				
EFH (C8-C11)	79	74	49-123	7	20				
Batch number: 131600637001	Sample number(s): 7081058-7081063 UNSPK: 7081058 BKG: 7081058								
Aluminum	1622 (2)	1543 (2)	75-125	1	20	8,890	9,900	11	20

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Sample Matrix Quality Control

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Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Antimony	81	81	75-125	1	20	0.563 J	4.00 U	200* (1)	20
Arsenic	106	106	75-125	0	20	4.10	4.62	12 (1)	20
Barium	103	108	75-125	4	20	60.2	64.4	7	20
Beryllium	102	103	75-125	1	20	0.397 J	0.443 J	11 (1)	20
Boron	96	98	75-125	2	20	6.05 J	6.15 J	2 (1)	20
Cadmium	98	99	75-125	1	20	0.504 J	0.525 J	4 (1)	20
Calcium	127 (2)	111 (2)	75-125	2	20	2,410	2,290	5	20
Chromium	109	104	75-125	3	20	11.4	13.0	14 (1)	20
Cobalt	97	98	75-125	0	20	3.70	3.89	5 (1)	20
Copper	99	104	75-125	4	20	5.27	5.51	4 (1)	20
Iron	1612 (2)	1351 (2)	75-125	1	20	16,100	17,500	9	20
Lead	101	100	75-125	1	20	7.67	8.60	11 (1)	20
Lithium	105	105	75-125	1	20	21.8	24.4	11	20
Magnesium	353 (2)	374 (2)	75-125	1	20	3,490	3,880	11	20
Manganese	125 (2)	129 (2)	75-125	1	20	239	256	7	20
Molybdenum	98	99	75-125	1	20	0.759 J	0.385 J	65* (1)	20
Nickel	100	99	75-125	1	20	6.70	8.25	21* (1)	20
Phosphorus	103	114	75-125	2	20	378	383	1	20
Potassium	150*	149*	75-125	0	20	2,930	3,180	8	20
Sodium	100	101	75-125	1	20	62.7 J	68.0 J	8 (1)	20
Tin	93	92	75-125	0	20	2.66 J	2.68 J	1 (1)	20
Titanium	441 (2)	406 (2)	75-125	3	20	928	1,040	11	20
Vanadium	104	105	75-125	1	20	24.6	28.0	13	20
Zinc	110	111	75-125	1	20	66.1	71.2	7	20
Zirconium	100	101	75-125	1	20	2.18 J	2.97 J	31* (1)	20
Batch number: 131600637001A	Sample number(s): 7081058-7081063 UNSPK: 7081058 BKG: 7081058								
Silver	97	98	75-125	1	20	0.0317 J	0.200 U	200* (1)	20
Strontium	94	94	75-125	0	20	8.54	8.26	3	20
Thallium	112	107	75-125	3	20	0.198 J	0.229	15 (1)	20
Batch number: 131600637001B	Sample number(s): 7081058-7081063 UNSPK: 7081058 BKG: 7081058								
Selenium	107	108	75-125	2	20	0.400 U	0.400 U	0 (1)	20
Batch number: 131600637003	Sample number(s): 7081064-7081067,7081069 UNSPK: 7081064 BKG: 7081064								
Aluminum	1690 (2)	1435 (2)	75-125	3	20	11,400	12,900	13	20
Antimony	77	78	75-125	1	20	3.85 U	3.85 U	0 (1)	20
Arsenic	106	104	75-125	2	20	3.64 J	4.46	20 (1)	20
Barium	108	103	75-125	3	20	81.5	97.6	18	20
Beryllium	105	104	75-125	1	20	0.444 J	0.527 J	17 (1)	20
Boron	102	102	75-125	0	20	1.73 J	1.31 J	27* (1)	20
Cadmium	99	98	75-125	1	20	0.342 J	0.338 J	1 (1)	20
Calcium	385 (2)	235 (2)	75-125	9	20	5,160	7,880	42*	20
Chromium	113	106	75-125	4	20	17.1	19.8	15	20
Cobalt	99	98	75-125	1	20	4.24	4.93	15 (1)	20
Copper	108	107	75-125	1	20	9.53 J	11.5	19 (1)	20
Iron	2592 (2)	918 (2)	75-125	7	20	20,400	23,100	12	20
Lead	102	96	75-125	4	20	5.26	6.05	14 (1)	20
Lithium	105	102	75-125	2	20	25.4	27.1	7	20

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1394643
Reported: 06/21/13 at 04:43 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Magnesium	435 (2)	294 (2)	75-125	5	20	4,470	4,970	11	20
Manganese	164 (2)	142 (2)	75-125	3	20	259	275	6	20
Molybdenum	98	98	75-125	0	20	0.718 J	0.362 J	66* (1)	20
Nickel	103	102	75-125	1	20	7.30	9.54	27* (1)	20
Phosphorus	156*	108	75-125	9	20	371	449	19	20
Potassium	138*	100	75-125	9	20	2,990	3,300	10	20
Sodium	102	100	75-125	2	20	114	127	10 (1)	20
Tin	92	92	75-125	0	20	2.85 J	2.85 J	0 (1)	20
Titanium	368 (2)	282 (2)	75-125	5	20	1,190	1,320	11	20
Vanadium	114	109	75-125	3	20	30.4	33.6	10	20
Zinc	107	99	75-125	4	20	54.8	61.1	11	20
Zirconium	102	101	75-125	1	20	4.81 U	1.05 J	200* (1)	20
Batch number: 131600637003A	Sample number(s): 7081064-7081067,7081069 UNSPK: 7081064 BKG: 7081064								
Silver	106	103	75-125	2	20	0.192 U	0.0203 J	200* (1)	20
Strontium	124	115	75-125	3	20	16.6	22.6	31*	20
Thallium	93	91	75-125	1	20	0.263	0.266	1 (1)	20
Batch number: 131600637003B	Sample number(s): 7081064-7081067,7081069 UNSPK: 7081064 BKG: 7081064								
Selenium	114	106	75-125	7	20	0.385 U	0.385 U	0 (1)	20
Batch number: 131600638002	Sample number(s): 7081058-7081063 UNSPK: 7081058 BKG: 7081058								
3a Mercury 7471A	102	100	65-135	3	20	0.0148 J	0.0141 J	5 (1)	20
Batch number: 131640637001	Sample number(s): 7081068 UNSPK: P085556 BKG: P085556								
Aluminum	1575 (2)	1333 (2)	75-125	3	20	14,600	14,300	2	20
Antimony	61*	61*	75-125	0	20	3.88 U	3.88 U	0 (1)	20
Arsenic	99	98	75-125	1	20	4.93	5.27	7 (1)	20
Barium	102	100	75-125	1	20	105	106	1	20
Beryllium	100	100	75-125	0	20	0.626 J	0.624 J	0 (1)	20
Boron	96	95	75-125	0	20	4.64 J	3.81 J	20 (1)	20
Cadmium	96	95	75-125	1	20	0.971 U	0.971 U	0 (1)	20
Calcium	133 (2)	120 (2)	75-125	2	20	2,420	2,300	5	20
Chromium	113	107	75-125	3	20	22.0	22.3	1	20
Cobalt	95	94	75-125	1	20	5.48	5.86	7	20
Copper	100	100	75-125	0	20	11.6	11.6	0	20
Iron	767 (2)	-175 (2)	75-125	5	20	19,000	19,300	2	20
Lead	97	95	75-125	1	20	8.32	8.57	3 (1)	20
Lithium	105	103	75-125	1	20	23.2	23.2	0	20
Magnesium	216 (2)	144 (2)	75-125	3	20	4,390	4,400	0	20
Manganese	115 (2)	79 (2)	75-125	5	20	321	334	4	20
Molybdenum	95	95	75-125	0	20	0.687 J	0.500 J	32* (1)	20
Nickel	97	97	75-125	0	20	14.7	14.8	1	20
Phosphorus	97 (2)	72 (2)	75-125	5	20	429	415	3	20
Potassium	135 (2)	126 (2)	75-125	2	20	3,930	3,910	0	20
Sodium	97	97	75-125	1	20	69.7 J	68.3 J	2 (1)	20
Tin	90	90	75-125	0	20	2.75 J	2.75 J	0 (1)	20
Titanium	321 (2)	280 (2)	75-125	3	20	1,170	1,140	3	20
Vanadium	106	102	75-125	2	20	37.2	37.6	1	20
Zinc	100	97	75-125	2	20	62.6	62.3	0	20

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1394643
Reported: 06/21/13 at 04:43 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Zirconium	92	91	75-125	1	20	2.86 J	3.45 J	19 (1)	20
Batch number: 131640637001A	Sample number(s): 7081068 UNSPK: P085556 BKG: P085556								
Silver	112	122	75-125	8	20	0.0429 J	0.0940 J	75* (1)	20
Strontium	121	153*	75-125	7	20	22.8	30.2	28*	20
Thallium	138*	137*	75-125	0	20	0.299	0.397	28* (1)	20
Batch number: 131640637001B	Sample number(s): 7081068 UNSPK: P085556 BKG: P085556								
Selenium	111	117	75-125	5	20	0.148 J	0.230 J	43* (1)	20
Batch number: 131640638001	Sample number(s): 7081064-7081069 UNSPK: 7081064 BKG: 7081064								
3a Mercury 7471A	100	98	65-135	5	20	0.0165 U	0.0159 U	0 (1)	20
Batch number: 13156039401A	Sample number(s): 7081058,7081061-7081063 BKG: 7081058								
15a pH by 9045D						6.68	6.71	0	3
Batch number: 13156039401B	Sample number(s): 7081064,7081067-7081069 BKG: 7081064								
15a pH by 9045D						8.18	8.20	0	3
Batch number: 13162162401A	Sample number(s): 7081055-7081057,7081062-7081063 BKG: P081058								
14a Moisture Content by 160.3						2.1	1.4	40*	20
Batch number: 13162162401B	Sample number(s): 7081064-7081069 BKG: 7081064								
14a Moisture Content by 160.3						7.5	8.4	11	20
14a Moisture Content by 160.3						7.5	8.4	11	20
14a Moisture Content by 160.3						7.5	8.4	11	20
Batch number: 13163162401A	Sample number(s): 7081058-7081061 BKG: 7081058								
14a Moisture Content by 160.3						1.8	1.9	7	20
14a Moisture Content by 160.3						1.8	1.9	7	20
14a Moisture Content by 160.3						1.8	1.9	7	20
Batch number: 13163006	Sample number(s): 7081064-7081066,7081068-7081069 UNSPK: 7081064								
2378-TCDD	99	96	40-135	3	20				
12378-PeCDD	99	101	40-135	2	20				
123478-HxCDD	107	106	40-135	1	20				
123678-HxCDD	104	103	40-135	1	20				
123789-HxCDD	105	105	40-135	0	20				
1234678-HpCDD	104	102	40-135	2	20				
OCDD	103	102	40-135	1	20				
2378-TCDF	101	100	40-135	1	20				
12378-PeCDF	102	103	40-135	0	20				
23478-PeCDF	105	103	40-135	2	20				
123478-HxCDF	107	105	40-135	2	20				
123678-HxCDF	104	102	40-135	3	20				
123789-HxCDF	105	105	40-135	1	20				
234678-HxCDF	106	105	40-135	1	20				
1234678-HpCDF	106	105	40-135	1	20				
1234789-HpCDF	105	105	40-135	0	20				
OCDF	103	104	40-135	1	20				
Batch number: 13168006	Sample number(s): 7081058-7081060,7081062-7081063 UNSPK: 7081058								

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1394643
Reported: 06/21/13 at 04:43 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
2378-TCDD	94	96	40-135	1	20				
12378-PeCDD	100	100	40-135	0	20				
123478-HxCDD	106	105	40-135	2	20				
123678-HxCDD	103	102	40-135	1	20				
123789-HxCDD	102	104	40-135	1	20				
1234678-HpCDD	53	53	40-135	0	20				
OCDD	-124 (2)	-129 (2)	40-135	2	20				
2378-TCDF	96	98	40-135	2	20				
12378-PeCDF	103	103	40-135	0	20				
23478-PeCDF	105	103	40-135	2	20				
123478-HxCDF	107	107	40-135	0	20				
123678-HxCDF	102	102	40-135	0	20				
123789-HxCDF	104	107	40-135	2	20				
234678-HxCDF	104	103	40-135	1	20				
1234678-HpCDF	94	95	40-135	1	20				
1234789-HpCDF	102	105	40-135	2	20				
OCDF	74	77	40-135	2	20				

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 7a SVOC SIM EPA 8270D
Batch number: 13158SLB026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
7081058	89	93	94
7081059	95	99	100
7081060	108	98	106
7081062	97	92	98
7081063	89	89	92
Blank	86	89	96
LCS	90	94	97
MS	95	99	100
MSD	108	98	106
Limits:	54-129	61-134	55-129

Analysis Name: 7a SVOC SIM EPA 8270D
Batch number: 13158SLC026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
7081064	94	86	95
7081065	108	83	102

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1394643
Reported: 06/21/13 at 04:43 PM

Surrogate Quality Control

7081066	96	82	95
7081068	103	80	100
7081069	95	91	97
Blank	90	94	94
LCS	90	95	96
MS	108	83	102
MSD	96	82	95
Limits:	54-129	61-134	55-129

Analysis Name: 11a TPH by EPA 8015B GRO
Batch number: 13160A16A

	Trifluorotoluene-F
7081064	81
7081065	80
7081066	91
7081069	78
Blank	87
LCS	93
MS	80
MSD	91
Limits:	61-122

Analysis Name: 11b TPH by EPA 8015B GRO
Batch number: 13162B20A

	Trifluorotoluene-F
7081070	87
Blank	84
LCS	120
LCSD	119
Limits:	63-135

Analysis Name: 19a PCBs and PCTs 8082A
Batch number: 131580010A

	Tetrachloro-m-xylene	Decachlorobiphenyl
7081055	113	102
7081056	114	114
7081057	120	141*
7081058	115	107
7081059	99	93
7081060	113	104
Blank	116	116
LCS	107	112
LCSD	115	119
MS	99	93
MSD	113	104
Limits:	45-120	45-120

Analysis Name: 19a PCBs and PCTs 8082A
Batch number: 131620008A

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1394643
Reported: 06/21/13 at 04:43 PM

Surrogate Quality Control

	Tetrachloro-m-xylene	Decachlorobiphenyl
7081062	100	90
7081063	116	114
7081064	112	102
7081065	58	53
7081066	76	68
7081068	98	89
7081069	95	90
Blank	113	122*
LCS	121*	124*
LCSD	118	127*
MS	58	53
MSD	76	68
Limits:	45-120	45-120

Analysis Name: 20a Pesticides by EPA 8081B
Batch number: 131620099A

	Tetrachloro-m-xylene	Decachlorobiphenyl
7081058	87	83
7081059	92	94
7081060	92	86
7081062	88	83
Blank	104	105
LCS	102	105
MS	92	94
MSD	92	86
Limits:	50-130	20-120

Analysis Name: 10a TPH by EPA 8015B (DRO)
Batch number: 131580013A

	Chlorobenzene	Orthoterphenyl
7081058	85	77
7081059	88	66
7081060	94	82
7081062	112	88
7081063	92	91
Blank	93	85
LCS	94	95
MS	88	66
MSD	94	82
Limits:	37-125	66-123

Analysis Name: 10a TPH by EPA 8015B (DRO)
Batch number: 131610003A

	Chlorobenzene	Orthoterphenyl
7081064	83	83
7081065	90	88
7081066	89	84
7081068	88	92

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1394643
Reported: 06/21/13 at 04:43 PM

Surrogate Quality Control

7081069	82	84
Blank	86	82
LCS	90	91
MS	90	88
MSD	89	84
Limits:	37-125	66-123

Analysis Name: 23a Dioxin/Furan by EPA 1613B
Batch number: 13163006

	13C12-2378-TCDD	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF	13C12-234678-HxCDF	13C12-123789-HxCDF
7081064	81	86	89	89	89	90
7081065	84	88	93	92	92	93
7081066	82	86	87	88	87	90
7081068	82	89	90	90	90	90
7081069	81	85	89	91	89	91
Blank	69	79	85	93	88	84
MS	84	88	93	92	92	93
MSD	82	86	87	88	87	90
OPR	71	79	85	91	86	87
Limits:	25-164	21-178	26-152	26-123	28-136	29-147

	13C12-1234678-HpCDF	13C12-1234789-HpCDF	13C12-OCDF	13C12-12378-PeCDD	13C12-123478-HxCDD	13C12-123678-HxCDD
7081064	87	86	84	83	82	84
7081065	88	88	82	87	85	86
7081066	90	87	87	84	82	82
7081068	94	91	91	85	84	84
7081069	98	89	90	83	84	84
Blank	110	81	84	81	84	86
MS	88	88	82	87	85	86
MSD	90	87	87	84	82	82
OPR	104	85	87	80	83	85
Limits:	28-143	26-138	17-157	25-181	32-141	28-130

	13C12-123789-HxCDD	13C12-1234678-HpCDD	13C12-OCDD	13C12-2378-TCDF	13C12-12378-PeCDF
7081064	83	81	78	80	84
7081065	86	81	72	83	88
7081066	82	82	81	79	85
7081068	84	85	87	83	87
7081069	84	87	88	78	85
Blank	84	87	92	63	81
MS	86	81	72	83	88
MSD	82	82	81	79	85
OPR	83	86	92	63	79
Limits:	28-130	23-140	17-157	24-169	24-185

Analysis Name: 23a Dioxin/Furan by EPA 1613B
Batch number: 13168006

	13C12-2378-TCDD	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF	13C12-234678-HxCDF	13C12-123789-HxCDF

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1394643
Reported: 06/21/13 at 04:43 PM

Surrogate Quality Control

7081058	83	91	90	89	90	96
7081059	81	92	88	89	89	92
7081060	79	89	86	87	87	87
7081062	78	90	86	88	87	89
7081063	72	76	80	88	82	77
Blank	61	64	73	81	75	69
MS	81	92	88	89	89	92
MSD	79	89	86	87	87	87
OPR	60	63	71	81	74	67
Limits:	25-164	21-178	26-152	26-123	28-136	29-147

	13C12-1234678-HpCDF	13C12-1234789-HpCDF	13C12-OCDF	13C12-12378-PeCDD	13C12-123478-HxCDD	13C12-123678-HxCDD
7081058	96	98	97	91	85	85
7081059	96	96	91	92	85	85
7081060	95	95	96	88	84	84
7081062	99	99	101	91	84	84
7081063	113	78	73	80	82	83
Blank	107	73	76	70	79	81
MS	96	96	91	92	85	85
MSD	95	95	96	88	84	84
OPR	100	73	77	68	75	79
Limits:	28-143	26-138	17-157	25-181	32-141	28-130

	13C12-123789-HxCDD	13C12-1234678-HpCDD	13C12-OCDD	13C12-2378-TCDF	13C12-12378-PeCDF
7081058	85	92	95	79	88
7081059	86	91	92	79	90
7081060	83	91	94	75	85
7081062	84	95	98	74	86
7081063	82	91	95	66	81
Blank	78	85	91	53	69
MS	86	91	92	79	90
MSD	83	91	94	75	85
OPR	76	83	88	54	66
Limits:	28-130	23-140	17-157	24-169	24-185

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13013 1394643 7081055-70

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 6/4/2013
CarrierName: FedEx
AirbillNo: 799920832400

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20130604-01
Cooler #: 1
Lab: Lancaster
Lab Phone: 717-556-7259
Lab Address: 2425 New Holland Pike Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Other Analysis/Notes
SL-545A-SA7-SB-0.0-0.5	6/3/13 14:50	SO	None	1 - SS-Sleeve	10 day										X																						
SL-545B-SA7-SB-0.0-0.5	6/3/13 15:00	SO	None	1 - SS-Sleeve	10 day										X																						
SL-545C-SA7-SB-0.0-0.5	6/3/13 15:10	SO	None	1 - SS-Sleeve	10 day										X																						
SL-513-SA7-SB-0.0-0.5MS	6/4/13 08:30	SO	None	6 - SS-Sleeve	10 day	X	X					X		X	X							X				X											MS/MSD
SL-513-SA7-SB-0.0-0.5MS	6/4/13 08:30	SO	None	1 - 8 oz glass	10 day													X																			MS/MSD
SL-913-SA7-SB-0.0-0.5	6/4/13 08:45	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X							X				X											
SL-913-SA7-SB-0.0-0.5	6/4/13 08:45	SO	None	1 - 4 oz glass	10 day													X																			
SL-516-SA7-SB-0.0-0.5	6/4/13 09:55	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-516-SA7-SB-0.0-0.5	6/4/13 09:55	SO	None	1 - 4 oz glass	10 day													X																			
SL-524-SA7-SB-1.0-2.0MS	6/4/13 13:20	SO	None	6 - 16 oz glass	10 day	X	X					X		X	X											X											MS/MSD
SL-524-SA7-SB-1.0-2.0MS	6/4/13 13:20	SO	None	1 - 8 oz glass	10 day													X																			MS/MSD
SL-524-SA7-SB-1.0-2.0MS	6/4/13 13:20	SO	None	6 - Encore	10 day																				X												MS/MSD
SL-524-SA7-SB-0.0-0.5	6/4/13 13:10	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-524-SA7-SB-0.0-0.5	6/4/13 13:10	SO	None	1 - 4 oz glass	10 day													X																			
SL-924-SA7-SB-1.0-2.0	6/4/13 13:30	SO	None	2 - 16 oz glass	10 day	X	X					X		X	X											X											
SL-924-SA7-SB-1.0-2.0	6/4/13 13:30	SO	None	1 - 4 oz glass	10 day													X																			
SL-924-SA7-SB-1.0-2.0	6/4/13 13:30	SO	None	2 - Encore	10 day																				X												
TB-060413	6/4/13 08:00	WQ	HCl	3 - 40 mL Vial	10 day																				X												

Subarea 7

COC Rev 2

Rec'd by: Pat G 6/5/2013 0920

SSFL Phase 3 Chain of Custody

13013 1394643 7081055-70

CDM Smith

DateShipped: 6/4/2013
CarrierName: FedEx
AirbillNo: 799920832400

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20130604-01
Cooler #: 1
Lab: Lancaster
Lab Phone: 717-556-7259
Lab Address: 2425 New Holland Pike
Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Other Analysis/Notes

Special Instructions:

Sampler: V. Costa

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
[illegible]	06/04/13	1600									
									[illegible]	6/5/13	0920

COC Rev 2

COC: 20130604-01, Page 2 of 2

2 of 2

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Environmental Sample Administration Receipt Documentation Log

1394643

Client/Project: COM Smith

Date of Receipt: 6/5/13

Time of Receipt: 0920

Source Code: 50

Shipping Container Sealed: (YES) NO

Custody Seal Present * : (YES) NO

* Custody seal was intact unless otherwise noted in the discrepancy section

Package: (Chilled) Not Chilled

Temperature of Shipping Containers							
Cooler #	Thermometer ID	Temperature (°C)	Temp Bottle (TB) or Surface Temp (ST)	Wet Ice (WI) or Dry Ice (DI) or Ice Packs (IP)	Ice Present? Y/N	Loose (L) Bagged Ice (B) or NA	Comments
1	DT121	1.0	TB	WI	y	B	
2							
3							
4							
5							
6							

Number of Trip Blanks received NOT listed on chain of custody: Ø

Paperwork Discrepancy/Unpacking Problems:

Unpacker Signature/Emp#: [illegible] 3472 **Date/Time:** 6/5/13 1000

Issued by Dept. 6042 Management

2174.06

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	**BMQL**	Below Minimum Quantitation Level
N.D.	none detected	**MPN**	Most Probable Number
TNTC	Too Numerous To Count	**CP Units**	cobalt-chloroplatinate units
IU	International Units	**NTU**	nephelometric turbidity units
umhos/cm	micromhos/cm	**ng**	nanogram(s)
C	degrees Celsius	**F**	degrees Fahrenheit
meq	milliequivalents	**lb.**	pound(s)
g	gram(s)	**kg**	kilogram(s)
µg	microgram(s)	**mg**	milligram(s)
mL	milliliter(s)	**L**	liter(s)
m3	cubic meter(s)	**µL**	microliter(s)
		pg/L	picogram/liter

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

J estimated value – The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	**B**	Value is <CRDL, but ≥IDL
B	Analyte was also detected in the blank	**E**	Estimated due to interference
C	Pesticide result confirmed by GC/MS	**M**	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	**N**	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	**S**	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	**U**	Compound was not detected
P	Concentration difference between primary and confirmation columns >25%	**W**	Post digestion spike out of control limits
U	Compound was not detected	*****	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	**+**	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as “analyze immediately” are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL LANCASTER LABORATORIES BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF LANCASTER LABORATORIES AND (B) WHETHER LANCASTER LABORATORIES HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Lancaster Laboratories which includes any conditions that vary from the Standard Terms and Conditions, and Lancaster hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

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Analysis Report

ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

June 20, 2013

Project: Phase 3 Subarea 7

Submittal Date: 06/07/2013
Group Number: 1395500
SDG: PH049
PO Number: 1204-002-001-AL
State of Sample Origin: CA

Client Sample Description	Lancaster Labs (LLI) #
SL-514-SA7-SB-0.0-0.5 Soil	7085553
SL-515-SA7-SB-0.0-0.5 Soil	7085554

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO	LLI	Attn: Nicole Maljovec
ELECTRONIC COPY TO	Eurofins Lancaster Labs	Attn: Natalie Luciano

Respectfully Submitted,

Natalie R. Luciano
Senior Specialist

(717) 556-7258

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Analysis Report

Sample Description: SL-514-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7085553
LLI Group # 1395500
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/06/2013 08:55 by VC

Submitted: 06/07/2013 09:20
Reported: 06/20/2013 14:02

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL514 SDG#: PH049-01

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	17	U	17	6.7	10
12969	Acenaphthylene	208-96-8	17	U	17	3.3	10
12969	Anthracene	120-12-7	17	U	17	3.3	10
12969	Benzo(a)anthracene	56-55-3	17	U	17	6.7	10
12969	Benzo(a)pyrene	50-32-8	17	U	17	6.7	10
12969	Benzo(b)fluoranthene	205-99-2	17	U	17	6.7	10
12969	Benzo(e)pyrene	192-97-2	170	U	170	33	10
12969	Benzo(g,h,i)perylene	191-24-2	17	U	17	6.7	10
12969	Benzo(k)fluoranthene	207-08-9	17	U	17	6.7	10
12969	Butylbenzylphthalate	85-68-7	180	U	180	60	10
12969	Di-n-butylphthalate	84-74-2	180	U	180	60	10
12969	Chrysene	218-01-9	5.1	J	17	3.3	10
12969	Dibenz(a,h)anthracene	53-70-3	17	U	17	6.7	10
12969	Diethylphthalate	84-66-2	180	U	180	60	10
12969	Dimethylphthalate	131-11-3	180	U	180	60	10
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	180	U	180	60	10
12969	Fluoranthene	206-44-0	6.8	J	17	6.7	10
12969	Fluorene	86-73-7	17	U	17	6.7	10
12969	Indeno(1,2,3-cd)pyrene	193-39-5	17	U	17	6.7	10
12969	1-Methylnaphthalene	90-12-0	17	U	17	6.7	10
12969	2-Methylnaphthalene	91-57-6	17	U	17	6.7	10
12969	Naphthalene	91-20-3	17	U	17	6.7	10
12969	N-Nitrosodimethylamine	62-75-9	17	U	17	6.7	10
12969	Di-n-octylphthalate	117-84-0	180	U	180	60	10
12969	Phenanthrene	85-01-8	17	U	17	6.7	10
12969	Pyrene	129-00-0	17	U	17	6.7	10
Reporting limits were raised due to interference from the sample matrix.							
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
10592	Aroclor 5432	63496-31-1	33	U	33	10	1
10592	Aroclor 5442	12642-23-8	33	U	33	10	1
10592	Aroclor 5460	11126-42-4	180		33	10	1
10592	PCB-1016	12674-11-2	17	U	17	3.3	1
10592	PCB-1221	11104-28-2	17	U	17	5.2	1
10592	PCB-1232	11141-16-5	17	U	17	4.1	1
10592	PCB-1242	53469-21-9	17	U	17	4.1	1
10592	PCB-1248	12672-29-6	17	U	17	3.3	1
10592	PCB-1254	11097-69-1	52		17	4.4	1
10592	PCB-1260	11096-82-5	17	U	17	3.9	1
10592	PCB-1262	37324-23-5	17	U	17	3.3	1
10592	PCB-1268	11100-14-4	17	U	17	3.3	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	10	U	10	4.0	2
12952	EFH (C15-C20)	n.a.	10	U	10	4.0	2
12952	EFH (C21-C30)	n.a.	46		10	4.0	2
12952	EFH (C30-C40)	n.a.	100		20	8.1	2
12952	EFH (C8-C11)	n.a.	10	U	10	4.0	2

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-514-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7085553
LLI Group # 1395500
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/06/2013 08:55 by VC

Submitted: 06/07/2013 09:20
Reported: 06/20/2013 14:02

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL514 SDG#: PH049-01

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	13,700		40.4	7.80	1
06944	Antimony	7440-36-0	4.04	U	4.04	0.506	1
06935	Arsenic	7440-38-2	4.74		4.04	0.334	1
06946	Barium	7440-39-3	70.9		1.01	0.0334	1
06947	Beryllium	7440-41-7	0.476	J	1.01	0.0677	1
07914	Boron	7440-42-8	2.55	J	10.1	0.839	1
06949	Cadmium	7440-43-9	0.397	J	1.01	0.0334	1
01650	Calcium	7440-70-2	3,260		20.2	4.06	1
06951	Chromium	7440-47-3	17.4		3.03	0.0890	1
06952	Cobalt	7440-48-4	6.20		1.01	0.0910	1
06953	Copper	7440-50-8	11.7		10.1	0.910	5
01654	Iron	7439-89-6	23,600		40.4	3.84	1
06955	Lead	7439-92-1	10.5		3.03	0.475	1
01656	Lithium	7439-93-2	22.9		4.0	0.56	1
01657	Magnesium	7439-95-4	4,930		10.1	1.75	1
06958	Manganese	7439-96-5	253		1.01	0.0839	1
06960	Molybdenum	7439-98-7	2.02	U	2.02	0.172	1
06961	Nickel	7440-02-0	8.44		2.02	0.111	1
10145	Phosphorus	7723-14-0	417		10.1	0.516	1
01662	Potassium	7440-09-7	2,600		101	13.7	1
01667	Sodium	7440-23-5	111		101	16.9	1
06969	Tin	7440-31-5	2.78	J	10.1	0.222	1
06970	Titanium	7440-32-6	1,190		1.01	0.172	1
06971	Vanadium	7440-62-2	38.3		1.01	0.111	1
06972	Zinc	7440-66-6	61.7		4.04	0.202	1
10146	Zirconium	7440-67-7	5.06	U	5.06	0.839	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.120	J	0.404	0.101	2
06142	Silver	7440-22-4	0.0339	J	0.202	0.0202	2
06144	Strontium	7440-24-6	15.7		0.404	0.0344	2
06145	Thallium	7440-28-0	0.217		0.202	0.0303	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0264		0.0158	0.0095	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045D	n.a.	7.18		0.0100	0.0100	1
	The pH was measured in water at 21.1 C.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	1.1		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-514-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7085553
LLI Group # 1395500
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/06/2013 08:55 by VC

Submitted: 06/07/2013 09:20
Reported: 06/20/2013 14:02

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL514 SDG#: PH049-01

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0421	JQ	0.992	0.0257	1
11031	12378-PeCDD	40321-76-4	0.458	JB	4.96	0.0834	1
11031	123478-HxCDD	39227-28-6	1.29	J	4.96	0.0405	1
11031	123678-HxCDD	57653-85-7	3.93	JB	4.96	0.0434	1
11031	123789-HxCDD	19408-74-3	2.02	JB	4.96	0.0385	1
11031	1234678-HpCDD	35822-46-9	138	B	4.96	0.0833	1
11031	OCDD	3268-87-9	1,320	B	9.92	0.0683	1
11031	2378-TCDF	51207-31-9	2.63	C	0.992	0.0804	1
11031	12378-PeCDF	57117-41-6	3.12	JB	4.96	0.0338	1
11031	23478-PeCDF	57117-31-4	3.48	JB	4.96	0.0328	1
11031	123478-HxCDF	70648-26-9	6.25	B	4.96	0.0332	1
11031	123678-HxCDF	57117-44-9	2.73	JB	4.96	0.0315	1
11031	123789-HxCDF	72918-21-9	4.96	U	4.96	0.0361	1
11031	234678-HxCDF	60851-34-5	3.13	JB	4.96	0.0310	1
11031	1234678-HpCDF	67562-39-4	39.3	B	4.96	0.0279	1
11031	1234789-HpCDF	55673-89-7	4.01	JB	4.96	0.0338	1
11031	OCDF	39001-02-0	109	B	9.92	0.0359	1
Toxic Equivalents	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	6.04				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	72	25 - 164
13C12-12378-PeCDD	72	25 - 181
13C12-123478-HxCDD	73	32 - 141
13C12-123678-HxCDD	75	28 - 130
13C12-123789-HxCDD	74	28 - 130
13C12-1234678-HpCDD	73	23 - 140
13C12-OCDD	77	17 - 157
13C12-2378-TCDF	70	24 - 169
13C12-12378-PeCDF	75	24 - 185
13C12-23478-PeCDF	75	21 - 178
13C12-123478-HxCDF	80	26 - 152
13C12-123678-HxCDF	82	26 - 123
13C12-234678-HxCDF	81	28 - 136
13C12-123789-HxCDF	79	29 - 147
13C12-1234678-HpCDF	82	28 - 143
13C12-1234789-HpCDF	75	26 - 138
13C12-OCDF	76	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-514-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7085553
LLI Group # 1395500
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/06/2013 08:55 by VC

Submitted: 06/07/2013 09:20
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CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL514 SDG#: PH049-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-514-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7085553
LLI Group # 1395500
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/06/2013 08:55 by VC

Submitted: 06/07/2013 09:20
Reported: 06/20/2013 14:02

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL514 SDG#: PH049-01

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13159SLD026	06/18/2013 11:50	Mark A Clark	10
10811	BNA Soil Microwave SIM	SW-846 3546	1	13159SLD026	06/10/2013 08:55	Katheryne V Sponheimer	1
10592	19a PCBs and PCTs 8082A	SW-846 8082A	1	131620008A	06/12/2013 18:24	Monica M Souders	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	131620008A	06/11/2013 18:30	Sally L Appleyard	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	131610003A	06/12/2013 14:08	Heather E Williams	2
12959	EFH soil ext.(microwave)	SW-846 3546	1	131610003A	06/10/2013 13:45	David S Schrum	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13165001	06/18/2013 12:44	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13165001	06/14/2013 13:00	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010C	1	131600637003	06/12/2013 22:07	Katlin N Cataldi	1
06944	Antimony	SW-846 6010C	1	131600637003	06/12/2013 22:07	Katlin N Cataldi	1
06935	Arsenic	SW-846 6010C	1	131600637003	06/12/2013 22:07	Katlin N Cataldi	1
06946	Barium	SW-846 6010C	1	131600637003	06/12/2013 22:07	Katlin N Cataldi	1
06947	Beryllium	SW-846 6010C	1	131600637003	06/12/2013 22:07	Katlin N Cataldi	1
07914	Boron	SW-846 6010C	1	131600637003	06/12/2013 22:07	Katlin N Cataldi	1
06949	Cadmium	SW-846 6010C	1	131600637003	06/12/2013 22:07	Katlin N Cataldi	1
01650	Calcium	SW-846 6010C	1	131600637003	06/12/2013 22:07	Katlin N Cataldi	1
06951	Chromium	SW-846 6010C	1	131600637003	06/12/2013 22:07	Katlin N Cataldi	1
06952	Cobalt	SW-846 6010C	1	131600637003	06/12/2013 22:07	Katlin N Cataldi	1
06953	Copper	SW-846 6010C	1	131600637003	06/14/2013 05:53	Tara L Snyder	5
01654	Iron	SW-846 6010C	1	131600637003	06/12/2013 22:07	Katlin N Cataldi	1
06955	Lead	SW-846 6010C	1	131600637003	06/12/2013 22:07	Katlin N Cataldi	1
01656	Lithium	SW-846 6010C	1	131600637003	06/12/2013 22:07	Katlin N Cataldi	1
01657	Magnesium	SW-846 6010C	1	131600637003	06/12/2013 22:07	Katlin N Cataldi	1
06958	Manganese	SW-846 6010C	1	131600637003	06/12/2013 22:07	Katlin N Cataldi	1
06960	Molybdenum	SW-846 6010C	1	131600637003	06/12/2013 22:07	Katlin N Cataldi	1
06961	Nickel	SW-846 6010C	1	131600637003	06/12/2013 22:07	Katlin N Cataldi	1
10145	Phosphorus	SW-846 6010C	1	131600637003	06/12/2013 22:07	Katlin N Cataldi	1
01662	Potassium	SW-846 6010C	1	131600637003	06/12/2013 22:07	Katlin N Cataldi	1
01667	Sodium	SW-846 6010C	1	131600637003	06/12/2013 22:07	Katlin N Cataldi	1
06969	Tin	SW-846 6010C	1	131600637003	06/12/2013 22:07	Katlin N Cataldi	1
06970	Titanium	SW-846 6010C	1	131600637003	06/12/2013 22:07	Katlin N Cataldi	1
06971	Vanadium	SW-846 6010C	1	131600637003	06/12/2013 22:07	Katlin N Cataldi	1
06972	Zinc	SW-846 6010C	1	131600637003	06/12/2013 22:07	Katlin N Cataldi	1
10146	Zirconium	SW-846 6010C	1	131600637003	06/12/2013 22:07	Katlin N Cataldi	1
06141	Selenium	SW-846 6020A	1	131600637003B	06/11/2013 20:54	David K Beck	2
06142	Silver	SW-846 6020A	1	131600637003A	06/11/2013 20:54	David K Beck	2
06144	Strontium	SW-846 6020A	1	131600637003A	06/11/2013 20:54	David K Beck	2

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-514-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7085553
LLI Group # 1395500
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/06/2013 08:55 by VC

Submitted: 06/07/2013 09:20
Reported: 06/20/2013 14:02

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL514 SDG#: PH049-01

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06145	Thallium	SW-846 6020A	1	131600637003A	06/11/2013 20:54	David K Beck	2
00159	3a Mercury 7471A	SW-846 7471B	1	131600638002	06/11/2013 20:05	Katlin N Cataldi	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	131600637003	06/11/2013 00:03	Annamaria Stipkovits	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	131600638002	06/11/2013 04:00	Annamaria Stipkovits	1
00394	15a pH by 9045D	SW-846 9045D modified	1	13158039402A	06/07/2013 21:10	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13162162402A	06/11/2013 22:45	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-515-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7085554
LLI Group # 1395500
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/06/2013 09:15 by VC

Submitted: 06/07/2013 09:20
Reported: 06/20/2013 14:02

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL515 SDG#: PH049-02*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.67	1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.34	1
12969	Anthracene	120-12-7	1.7	U	1.7	0.34	1
12969	Benzo(a)anthracene	56-55-3	1.7	U	1.7	0.67	1
12969	Benzo(a)pyrene	50-32-8	1.7	U	1.7	0.67	1
12969	Benzo(b)fluoranthene	205-99-2	1.7	U	1.7	0.67	1
12969	Benzo(e)pyrene	192-97-2	17	U	17	3.4	1
12969	Benzo(g,h,i)perylene	191-24-2	1.7	U	1.7	0.67	1
12969	Benzo(k)fluoranthene	207-08-9	1.7	U	1.7	0.67	1
12969	Butylbenzylphthalate	85-68-7	18	U	18	6.0	1
12969	Di-n-butylphthalate	84-74-2	18	U	18	6.0	1
12969	Chrysene	218-01-9	0.34	J	1.7	0.34	1
12969	Dibenz(a,h)anthracene	53-70-3	1.7	U	1.7	0.67	1
12969	Diethylphthalate	84-66-2	18	U	18	6.0	1
12969	Dimethylphthalate	131-11-3	18	U	18	6.0	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	19		18	6.0	1
12969	Fluoranthene	206-44-0	1.7	U	1.7	0.67	1
12969	Fluorene	86-73-7	1.7	U	1.7	0.67	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.7	U	1.7	0.67	1
12969	1-Methylnaphthalene	90-12-0	1.7	U	1.7	0.67	1
12969	2-Methylnaphthalene	91-57-6	1.7	U	1.7	0.67	1
12969	Naphthalene	91-20-3	1.7	U	1.7	0.67	1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.67	1
12969	Di-n-octylphthalate	117-84-0	18	U	18	6.0	1
12969	Phenanthrene	85-01-8	1.7	U	1.7	0.67	1
12969	Pyrene	129-00-0	1.7	U	1.7	0.67	1
Pesticides/PCBs	**SW-846 8081B**		**ug/kg**		**ug/kg**	**ug/kg**	
10590	Aldrin	309-00-2	0.84	U	0.84	0.17	1
10590	Alpha BHC	319-84-6	0.84	U	0.84	0.17	1
10590	Beta BHC	319-85-7	1.9	U	1.9	0.97	1
10590	Gamma BHC - Lindane	58-89-9	0.84	U	0.84	0.17	1
10590	Chlordane	57-74-9	17	U	17	4.1	1
10590	p,p-DDD	72-54-8	1.7	U	1.7	0.33	1
10590	p,p-DDE	72-55-9	1.7	U	1.7	0.33	1
10590	p,p-DDT	50-29-3	1.7	U	1.7	0.35	1
10590	Delta BHC	319-86-8	0.84	U	0.84	0.46	1
10590	Dieldrin	60-57-1	1.7	U	1.7	0.33	1
10590	Endosulfan I	959-98-8	0.84	U	0.84	0.22	1
10590	Endosulfan II	33213-65-9	1.7	U	1.7	0.33	1
10590	Endosulfan Sulfate	1031-07-8	1.7	U	1.7	0.33	1
10590	Endrin	72-20-8	1.7	U	1.7	0.33	1
10590	Endrin Aldehyde	7421-93-4	1.7	U	1.7	0.33	1
10590	Endrin Ketone	53494-70-5	1.8	U	1.8	0.61	1
10590	Heptachlor	76-44-8	0.84	U	0.84	0.17	1
10590	Heptachlor Epoxide	1024-57-3	0.84	U	0.84	0.17	1
10590	Methoxychlor	72-43-5	6.8	U	6.8	1.7	1
10590	Mirex	2385-85-5	1.7	U	1.7	0.35	1
10590	Toxaphene	8001-35-2	33	U	33	14	1

A target analyte(s) in the continuing calibration verification standard is outside the QC acceptance limits. The following

*=This limit was used in the evaluation of the final result

Sample Description: SL-515-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7085554
LLI Group # 1395500
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/06/2013 09:15 by VC

Submitted: 06/07/2013 09:20
Reported: 06/20/2013 14:02

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL515 SDG#: PH049-02*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
	corrective action was taken: The analysis was repeated and the continuing calibration verification standard bracketing the sample on the second trial is also outside the acceptance limits. This effect is attributed to the sample matrix and the data is reported.						
Pesticides/PCBs		**SW-846 8082A**	**ug/kg**		**ug/kg**	**ug/kg**	
10592	Aroclor 5432	63496-31-1	33	U	33	10	1
10592	Aroclor 5442	12642-23-8	33	U	33	10	1
10592	Aroclor 5460	11126-42-4	33	U	33	10	1
10592	PCB-1016	12674-11-2	17	U	17	3.3	1
10592	PCB-1221	11104-28-2	17	U	17	5.2	1
10592	PCB-1232	11141-16-5	17	U	17	4.2	1
10592	PCB-1242	53469-21-9	17	U	17	4.2	1
10592	PCB-1248	12672-29-6	17	U	17	3.3	1
10592	PCB-1254	11097-69-1	17	U	17	4.5	1
10592	PCB-1260	11096-82-5	17	U	17	4.0	1
10592	PCB-1262	37324-23-5	17	U	17	3.3	1
10592	PCB-1268	11100-14-4	17	U	17	3.3	1
GC Petroleum Hydrocarbons		**SW-846 8015B modified**	**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.1	U	5.1	2.0	1
12952	EFH (C15-C20)	n.a.	5.1	U	5.1	2.0	1
12952	EFH (C21-C30)	n.a.	5.1	U	5.1	2.0	1
12952	EFH (C30-C40)	n.a.	10	U	10	4.1	1
12952	EFH (C8-C11)	n.a.	5.1	U	5.1	2.0	1
Metals		**SW-846 6010C**	**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	11,100		39.4	7.59	1
06944	Antimony	7440-36-0	3.94	U	3.94	0.492	1
06935	Arsenic	7440-38-2	4.87		3.94	0.325	1
06946	Barium	7440-39-3	66.9		0.985	0.0325	1
06947	Beryllium	7440-41-7	0.439	J	0.985	0.0660	1
07914	Boron	7440-42-8	1.67	J	9.85	0.817	1
06949	Cadmium	7440-43-9	0.404	J	0.985	0.0325	1
01650	Calcium	7440-70-2	12,000		19.7	3.96	1
06951	Chromium	7440-47-3	16.1		2.95	0.0866	1
06952	Cobalt	7440-48-4	4.94		0.985	0.0886	1
06953	Copper	7440-50-8	8.75	J	9.85	0.886	5
01654	Iron	7439-89-6	23,100		39.4	3.74	1
06955	Lead	7439-92-1	4.81		2.95	0.463	1
01656	Lithium	7439-93-2	28.1		3.9	0.54	1
01657	Magnesium	7439-95-4	4,680		9.85	1.70	1
06958	Manganese	7439-96-5	412		0.985	0.0817	1
06960	Molybdenum	7439-98-7	1.97	U	1.97	0.167	1
06961	Nickel	7440-02-0	7.22		1.97	0.108	1
10145	Phosphorus	7723-14-0	438		9.85	0.502	1
01662	Potassium	7440-09-7	2,750		98.5	13.3	1
01667	Sodium	7440-23-5	81.3	J	98.5	16.4	1
06969	Tin	7440-31-5	2.96	J	9.85	0.217	1
06970	Titanium	7440-32-6	1,290		0.985	0.167	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-515-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7085554
LLI Group # 1395500
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/06/2013 09:15 by VC

Submitted: 06/07/2013 09:20
Reported: 06/20/2013 14:02

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL515 SDG#: PH049-02*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
06971	Vanadium	7440-62-2	33.9		0.985	0.108	1
06972	Zinc	7440-66-6	54.1		3.94	0.197	1
10146	Zirconium	7440-67-7	4.92	U	4.92	0.817	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.105	J	0.394	0.0985	2
06142	Silver	7440-22-4	0.197	U	0.197	0.0197	2
06144	Strontium	7440-24-6	17.2		0.394	0.0335	2
06145	Thallium	7440-28-0	0.237		0.197	0.0295	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0112	J	0.0168	0.0101	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045D	n.a.	8.32		0.0100	0.0100	1
	The pH was measured in water at 21.1 C.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	1.4		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-515-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7085554
LLI Group # 1395500
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/06/2013 09:15 by VC

Submitted: 06/07/2013 09:20
Reported: 06/20/2013 14:02

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL515 SDG#: PH049-02*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0419	JQ	1.01	0.0383	1
11031	12378-PeCDD	40321-76-4	5.04	U	5.04	0.0428	1
11031	123478-HxCDD	39227-28-6	0.0344	JQ	5.04	0.0313	1
11031	123678-HxCDD	57653-85-7	0.170	JB	5.04	0.0317	1
11031	123789-HxCDD	19408-74-3	0.0968	JB	5.04	0.0306	1
11031	1234678-HpCDD	35822-46-9	1.47	JB	5.04	0.0282	1
11031	OCDD	3268-87-9	13.5	B	10.1	0.0265	1
11031	2378-TCDF	51207-31-9	0.0312	JQ	1.01	0.0243	1
11031	12378-PeCDF	57117-41-6	0.0929	JBQ	5.04	0.0163	1
11031	23478-PeCDF	57117-31-4	0.0618	JBQ	5.04	0.0146	1
11031	123478-HxCDF	70648-26-9	0.0372	JBQ	5.04	0.0150	1
11031	123678-HxCDF	57117-44-9	5.04	U	5.04	0.0141	1
11031	123789-HxCDF	72918-21-9	0.0614	JBQ	5.04	0.0166	1
11031	234678-HxCDF	60851-34-5	5.04	U	5.04	0.0136	1
11031	1234678-HpCDF	67562-39-4	0.366	JB	5.04	0.0141	1
11031	1234789-HpCDF	55673-89-7	0.0673	JB	5.04	0.0213	1
11031	OCDF	39001-02-0	0.979	JB	10.1	0.0233	1
Toxic Equivalents	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.0500				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	67	25 - 164
13C12-12378-PeCDD	73	25 - 181
13C12-123478-HxCDD	76	32 - 141
13C12-123678-HxCDD	81	28 - 130
13C12-123789-HxCDD	78	28 - 130
13C12-1234678-HpCDD	77	23 - 140
13C12-OCDD	80	17 - 157
13C12-2378-TCDF	64	24 - 169
13C12-12378-PeCDF	74	24 - 185
13C12-23478-PeCDF	76	21 - 178
13C12-123478-HxCDF	81	26 - 152
13C12-123678-HxCDF	84	26 - 123
13C12-234678-HxCDF	86	28 - 136
13C12-123789-HxCDF	82	29 - 147
13C12-1234678-HpCDF	93	28 - 143
13C12-1234789-HpCDF	76	26 - 138
13C12-OCDF	74	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-515-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7085554
LLI Group # 1395500
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/06/2013 09:15 by VC

Submitted: 06/07/2013 09:20
Reported: 06/20/2013 14:02

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL515 SDG#: PH049-02*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-515-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7085554
LLI Group # 1395500
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/06/2013 09:15 by VC

Submitted: 06/07/2013 09:20
Reported: 06/20/2013 14:02

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL515 SDG#: PH049-02*

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13159SLD026	06/18/2013	12:22	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	13159SLD026	06/10/2013	08:55	Katheryne V Sponheimer	1
10590	20a Pesticides by EPA 8081B	SW-846 8081B	1	131620007A	06/15/2013	02:00	Jamie L Brillhart	1
10592	19a PCBs and PCTs 8082A	SW-846 8082A	1	131620008A	06/12/2013	18:43	Monica M Souders	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	131620008A	06/11/2013	18:30	Sally L Appleyard	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	131620007A	06/11/2013	19:00	Sally L Appleyard	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	131610003A	06/12/2013	05:41	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	131610003A	06/10/2013	13:45	David S Schrum	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13165001	06/18/2013	13:41	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13165001	06/14/2013	13:00	Deborah M Zimmerman	1
01643	Aluminum	SW-846 6010C	1	131600637003	06/12/2013	22:11	Katlin N Cataldi	1
06944	Antimony	SW-846 6010C	1	131600637003	06/12/2013	22:11	Katlin N Cataldi	1
06935	Arsenic	SW-846 6010C	1	131600637003	06/12/2013	22:11	Katlin N Cataldi	1
06946	Barium	SW-846 6010C	1	131600637003	06/12/2013	22:11	Katlin N Cataldi	1
06947	Beryllium	SW-846 6010C	1	131600637003	06/12/2013	22:11	Katlin N Cataldi	1
07914	Boron	SW-846 6010C	1	131600637003	06/12/2013	22:11	Katlin N Cataldi	1
06949	Cadmium	SW-846 6010C	1	131600637003	06/12/2013	22:11	Katlin N Cataldi	1
01650	Calcium	SW-846 6010C	1	131600637003	06/12/2013	22:11	Katlin N Cataldi	1
06951	Chromium	SW-846 6010C	1	131600637003	06/12/2013	22:11	Katlin N Cataldi	1
06952	Cobalt	SW-846 6010C	1	131600637003	06/12/2013	22:11	Katlin N Cataldi	1
06953	Copper	SW-846 6010C	1	131600637003	06/14/2013	05:57	Tara L Snyder	5
01654	Iron	SW-846 6010C	1	131600637003	06/12/2013	22:11	Katlin N Cataldi	1
06955	Lead	SW-846 6010C	1	131600637003	06/12/2013	22:11	Katlin N Cataldi	1
01656	Lithium	SW-846 6010C	1	131600637003	06/12/2013	22:11	Katlin N Cataldi	1
01657	Magnesium	SW-846 6010C	1	131600637003	06/12/2013	22:11	Katlin N Cataldi	1
06958	Manganese	SW-846 6010C	1	131600637003	06/12/2013	22:11	Katlin N Cataldi	1
06960	Molybdenum	SW-846 6010C	1	131600637003	06/12/2013	22:11	Katlin N Cataldi	1
06961	Nickel	SW-846 6010C	1	131600637003	06/12/2013	22:11	Katlin N Cataldi	1
10145	Phosphorus	SW-846 6010C	1	131600637003	06/12/2013	22:11	Katlin N Cataldi	1
01662	Potassium	SW-846 6010C	1	131600637003	06/12/2013	22:11	Katlin N Cataldi	1
01667	Sodium	SW-846 6010C	1	131600637003	06/12/2013	22:11	Katlin N Cataldi	1
06969	Tin	SW-846 6010C	1	131600637003	06/12/2013	22:11	Katlin N Cataldi	1
06970	Titanium	SW-846 6010C	1	131600637003	06/12/2013	22:11	Katlin N Cataldi	1
06971	Vanadium	SW-846 6010C	1	131600637003	06/12/2013	22:11	Katlin N Cataldi	1
06972	Zinc	SW-846 6010C	1	131600637003	06/12/2013	22:11	Katlin N Cataldi	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-515-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LLI Sample # SW 7085554
LLI Group # 1395500
Account # 13013

Project Name: Phase 3 Subarea 7

Collected: 06/06/2013 09:15 by VC

Submitted: 06/07/2013 09:20
Reported: 06/20/2013 14:02

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

SL515 SDG#: PH049-02*

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10146	Zirconium	SW-846 6010C	1	131600637003	06/12/2013 22:11	Katlin N Cataldi	1
06141	Selenium	SW-846 6020A	1	131600637003B	06/11/2013 20:56	David K Beck	2
06142	Silver	SW-846 6020A	1	131600637003A	06/11/2013 20:56	David K Beck	2
06144	Strontium	SW-846 6020A	1	131600637003A	06/11/2013 20:56	David K Beck	2
06145	Thallium	SW-846 6020A	1	131600637003A	06/11/2013 20:56	David K Beck	2
00159	3a Mercury 7471A	SW-846 7471B	1	131600638002	06/11/2013 20:07	Katlin N Cataldi	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	131600637003	06/11/2013 00:03	Annamaria Stipkovits	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	131600638002	06/11/2013 04:00	Annamaria Stipkovits	1
00394	15a pH by 9045D	SW-846 9045D modified	1	13158039402A	06/07/2013 21:10	Luz M Groff	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13162162402A	06/11/2013 22:45	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1395500
Reported: 06/20/13 at 02:02 PM

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 13159SLD026	Sample number(s): 7085553-7085554									
Acenaphthene	1.7	U	1.7	0.67	ug/kg	92		69-114		
Acenaphthylene	1.7	U	1.7	0.33	ug/kg	96		71-113		
Anthracene	1.7	U	1.7	0.33	ug/kg	102		75-116		
Benzo(a)anthracene	1.7	U	1.7	0.67	ug/kg	98		76-115		
Benzo(a)pyrene	1.7	U	1.7	0.67	ug/kg	100		76-117		
Benzo(b)fluoranthene	1.7	U	1.7	0.67	ug/kg	109		77-129		
Benzo(e)pyrene	17	U	17.	3.3	ug/kg	92		70-130		
Benzo(g,h,i)perylene	1.7	U	1.7	0.67	ug/kg	97		64-120		
Benzo(k)fluoranthene	1.7	U	1.7	0.67	ug/kg	100		71-120		
Butylbenzylphthalate	18	U	18.	6.0	ug/kg	103		65-131		
Di-n-butylphthalate	18	U	18.	6.0	ug/kg	108		67-140		
Chrysene	1.7	U	1.7	0.33	ug/kg	99		78-111		
Dibenz(a,h)anthracene	1.7	U	1.7	0.67	ug/kg	99		65-124		
Diethylphthalate	18	U	18.	6.0	ug/kg	92		68-125		
Dimethylphthalate	18	U	18.	6.0	ug/kg	97		70-130		
Bis(2-Ethylhexyl)phthalate	18	U	18.	6.0	ug/kg	101		67-143		
Fluoranthene	1.7	U	1.7	0.67	ug/kg	101		68-119		
Fluorene	1.7	U	1.7	0.67	ug/kg	101		75-123		
Indeno(1,2,3-cd)pyrene	1.7	U	1.7	0.67	ug/kg	98		66-122		
1-Methylnaphthalene	1.7	U	1.7	0.67	ug/kg	103		74-113		
2-Methylnaphthalene	1.7	U	1.7	0.67	ug/kg	102		78-121		
Naphthalene	1.7	U	1.7	0.67	ug/kg	98		64-120		
N-Nitrosodimethylamine	1.7	U	1.7	0.67	ug/kg	100		30-125		
Di-n-octylphthalate	18	U	18.	6.0	ug/kg	105		57-133		
Phenanthrene	1.7	U	1.7	0.67	ug/kg	96		72-110		
Pyrene	1.7	U	1.7	0.67	ug/kg	97		71-120		
Batch number: 131620007A	Sample number(s): 7085554									
Aldrin	0.83	U	0.83	0.17	ug/kg	113		73-119		
Alpha BHC	0.83	U	0.83	0.17	ug/kg	122		72-126		
Beta BHC	1.9	U	1.9	0.96	ug/kg	71*		76-123		
Gamma BHC - Lindane	0.83	U	0.83	0.17	ug/kg	136*		72-128		
Chlordane	17	U	17.	4.0	ug/kg					
p,p-DDD	1.7	U	1.7	0.33	ug/kg	142*		76-138		
p,p-DDE	1.7	U	1.7	0.33	ug/kg	109		76-126		
p,p-DDT	1.7	U	1.7	0.35	ug/kg	134*		72-131		
Delta BHC	0.83	U	0.83	0.45	ug/kg	124		73-128		
Dieldrin	1.7	U	1.7	0.33	ug/kg	128		78-135		
Endosulfan I	0.83	U	0.83	0.22	ug/kg	118		62-125		
Endosulfan II	1.7	U	1.7	0.33	ug/kg	137*		68-128		
Endosulfan Sulfate	1.7	U	1.7	0.33	ug/kg	137		72-138		
Endrin	1.7	U	1.7	0.33	ug/kg	124		75-130		
Endrin Aldehyde	1.7	U	1.7	0.33	ug/kg	120		55-132		

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(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1395500
Reported: 06/20/13 at 02:02 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Endrin Ketone	1.8	U	1.8	0.60	ug/kg	138*		74-127		
Heptachlor	0.83	U	0.83	0.17	ug/kg	128*		69-125		
Heptachlor Epoxide	0.83	U	0.83	0.17	ug/kg	121		78-125		
Methoxychlor	6.7	U	6.7	1.7	ug/kg	119		59-125		
Mirex	1.7	U	1.7	0.35	ug/kg					
Toxaphene	33	U	33.	14	ug/kg					
Batch number: 131620008A	Sample number(s): 7085553-7085554									
Aroclor 5432	33	U	33.	10	ug/kg					
Aroclor 5442	33	U	33.	10	ug/kg	75	73	36-106	3	30
Aroclor 5460	33	U	33.	10	ug/kg					
PCB-1016	17	U	17.	3.3	ug/kg	101		80-120		
PCB-1221	17	U	17.	5.1	ug/kg					
PCB-1232	17	U	17.	4.1	ug/kg					
PCB-1242	17	U	17.	4.1	ug/kg					
PCB-1248	17	U	17.	3.3	ug/kg					
PCB-1254	17	U	17.	4.4	ug/kg					
PCB-1260	17	U	17.	3.9	ug/kg	103		72-120		
PCB-1262	17	U	17.	3.3	ug/kg					
PCB-1268	17	U	17.	3.3	ug/kg					
Batch number: 131610003A	Sample number(s): 7085553-7085554									
EFH (C12-C14)	5.0	U	5.0	2.0	mg/kg	94		70-123		
EFH (C15-C20)	5.0	U	5.0	2.0	mg/kg	100		75-128		
EFH (C21-C30)	5.0	U	5.0	2.0	mg/kg	97		64-134		
EFH (C30-C40)	10	U	10.	4.0	mg/kg	104		65-128		
EFH (C8-C11)	5.0	U	5.0	2.0	mg/kg	71		49-107		
Batch number: 131600637003	Sample number(s): 7085553-7085554									
Aluminum	40.0	U	40.0	7.71	mg/kg	102		80-120		
Antimony	4.00	U	4.00	0.500	mg/kg	107		80-120		
Arsenic	4.00	U	4.00	0.330	mg/kg	103		80-120		
Barium	1.00	U	1.00	0.0330	mg/kg	104		80-120		
Beryllium	1.00	U	1.00	0.0670	mg/kg	103		80-120		
Boron	10.0	U	10.0	0.830	mg/kg	102		80-120		
Cadmium	1.00	U	1.00	0.0330	mg/kg	105		80-120		
Calcium	6.15	J	20.0	4.02	mg/kg	105		80-120		
Chromium	3.00	U	3.00	0.0880	mg/kg	104		80-120		
Cobalt	1.00	U	1.00	0.0900	mg/kg	105		80-120		
Copper	2.00	U	2.00	0.180	mg/kg	100		80-120		
Iron	4.39	J	40.0	3.80	mg/kg	102		80-120		
Lead	3.00	U	3.00	0.470	mg/kg	106		80-120		
Lithium	4.0	U	4.0	0.55	mg/kg	104		80-120		
Magnesium	10.0	U	10.0	1.73	mg/kg	104		80-120		
Manganese	1.00	U	1.00	0.0830	mg/kg	103		80-120		
Molybdenum	2.00	U	2.00	0.170	mg/kg	104		80-120		
Nickel	2.00	U	2.00	0.110	mg/kg	107		80-120		
Phosphorus	1.17	J	10.0	0.510	mg/kg	106		80-120		
Potassium	100 U		100.	13.5	mg/kg	100		80-120		
Sodium	100 U		100.	16.7	mg/kg	101		80-120		
Tin	1.43	J	10.0	0.220	mg/kg	103		80-120		
Titanium	1.00	U	1.00	0.170	mg/kg	104		80-120		
Vanadium	1.00	U	1.00	0.110	mg/kg	104		80-120		
Zinc	4.00	U	4.00	0.200	mg/kg	105		80-120		

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1395500
Reported: 06/20/13 at 02:02 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Zirconium	5.00	U	5.00	0.830	mg/kg	104		80-120		
Batch number: 131600637003A	Sample number(s): 7085553-7085554									
Silver	0.200	U	0.200	0.0200	mg/kg	107		80-120		
Strontium	0.400	U	0.400	0.0340	mg/kg	106		80-120		
Thallium	0.200	U	0.200	0.0300	mg/kg	98		80-120		
Batch number: 131600637003B	Sample number(s): 7085553-7085554									
Selenium	0.400	U	0.400	0.100	mg/kg	113		80-120		
Batch number: 131600638002	Sample number(s): 7085553-7085554									
3a Mercury 7471A	0.0167	U	0.0167	0.0100	mg/kg	103		85-120		
Batch number: 13158039402A	Sample number(s): 7085553-7085554									
15a pH by 9045D						100		95-105		
Batch number: 13162162402A	Sample number(s): 7085553-7085554									
14a Moisture Content by 160.3						100		80-120		

Analysis Name	Blank Result		Blank MRL**	Blank EDL	Report Units	OPR %REC	OPRD %REC	OPR/OPRD Limits	RPD	RPD Max
Batch number: 13165001	Sample number(s): 7085553-7085554									
2378-TCDD	1.00	U	1.00	0.0268	ng/kg	99		67-158		
12378-PeCDD	0.0542	J	5.00	0.0310	ng/kg	101		70-142		
123478-HxCDD	5.00	U	5.00	0.0174	ng/kg	107		70-164		
123678-HxCDD	0.0389	J	5.00	0.0179	ng/kg	105		76-134		
123789-HxCDD	0.0490	J	5.00	0.0182	ng/kg	106		64-162		
1234678-HpCDD	0.0445	J	5.00	0.0188	ng/kg	106		70-140		
OCDD	0.385	J	10.0	0.0213	ng/kg	105		78-144		
2378-TCDF	1.00	U	1.00	0.0212	ng/kg	102		75-158		
12378-PeCDF	0.0711	J	5.00	0.0136	ng/kg	106		80-134		
23478-PeCDF	0.0370	J	5.00	0.0134	ng/kg	107		68-160		
123478-HxCDF	0.0411	J	5.00	0.00900	ng/kg	108		72-134		
123678-HxCDF	0.0374	J	5.00	0.00850	ng/kg	108		84-130		
123789-HxCDF	0.0753	J	5.00	0.0106	ng/kg	107		78-130		
234678-HxCDF	0.0261	J	5.00	0.00840	ng/kg	107		70-156		
1234678-HpCDF	0.0586	J	5.00	0.00600	ng/kg	106		82-122		
1234789-HpCDF	0.0448	J	5.00	0.0106	ng/kg	105		78-138		
OCDF	0.124	J	10.0	0.0277	ng/kg	106		63-170		
TEQ WHO 2005 - EDLx0.0	0.0112				ng/kg					

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

MS	MSD	MS/MSD	RPD	BKG	DUP	DUP	Dup RPD

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1395500
Reported: 06/20/13 at 02:02 PM

Analysis Name	%REC	%REC	Limits	RPD	MAX	Conc	Conc	RPD	Max
Batch number: 13159SLD026	Sample number(s): 7085553-7085554 UNSPK: P085556								
Acenaphthene	83	89	48-127	6	30				
Acenaphthylene	86	90	49-121	4	30				
Anthracene	84	91	52-126	8	30				
Benzo(a)anthracene	85	92	32-135	8	30				
Benzo(a)pyrene	77	86	36-138	10	30				
Benzo(b)fluoranthene	96	99	26-142	3	30				
Benzo(e)pyrene	77	84	70-130	8	30				
Benzo(g,h,i)perylene	64	68	33-141	5	30				
Benzo(k)fluoranthene	75	87	47-129	14	30				
Butylbenzylphthalate	93	99	59-153	6	30				
Di-n-butylphthalate	101	103	62-154	2	30				
Chrysene	81	89	29-148	10	30				
Dibenz(a,h)anthracene	66	71	34-125	6	30				
Diethylphthalate	62*	80	76-127	25	30				
Dimethylphthalate	81	82	62-136	1	30				
Bis(2-Ethylhexyl)phthalate	108	120	39-167	11	30				
Fluoranthene	90	99	47-135	9	30				
Fluorene	80	92	50-129	13	30				
Indeno(1,2,3-cd)pyrene	68	74	17-136	8	30				
1-Methylnaphthalene	91	96	50-131	5	30				
2-Methylnaphthalene	91	95	28-144	4	30				
Naphthalene	85	90	31-148	5	30				
N-Nitrosodimethylamine	93	90	48-113	4	30				
Di-n-octylphthalate	229*	-8*	52-162	98*	30				
Phenanthrene	86	93	29-142	7	30				
Pyrene	80	88	26-143	9	30				
Batch number: 131620007A	Sample number(s): 7085554 UNSPK: P081058								
Aldrin	98	91	16-126	7	50				
Alpha BHC	113	106	14-140	6	50				
Beta BHC	61	42	10-173	36	50				
Gamma BHC - Lindane	131	123	30-137	6	50				
p,p-DDD	171*	127	43-149	29	50				
p,p-DDE	126	107	18-161	16	50				
p,p-DDT	995*	125	12-193	113*	50				
Delta BHC	117	107	13-153	9	50				
Dieldrin	131	116	19-154	12	50				
Endosulfan I	103	99	16-137	4	50				
Endosulfan II	148	0*	10-156	200*	50				
Endosulfan Sulfate	176	162	10-181	9	50				
Endrin	128	128	30-152	0	50				
Endrin Aldehyde	119	106	10-152	12	35				
Endrin Ketone	162*	160	10-160	1	50				
Heptachlor	147	134	16-152	9	50				
Heptachlor Epoxide	118	105	17-167	12	50				
Methoxychlor	219*	215*	34-168	2	50				
Batch number: 131620008A	Sample number(s): 7085553-7085554 UNSPK: P081064								
PCB-1016	47	66	16-146	33	50				
PCB-1260	42	53	40-134	23	50				
Batch number: 131610003A	Sample number(s): 7085553-7085554 UNSPK: P081064								
EFH (C12-C14)	96	91	49-123	5	20				
EFH (C15-C20)	293*	270*	49-123	8	20				
EFH (C21-C30)	1322*	1646*	49-123	18	20				

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1395500
Reported: 06/20/13 at 02:02 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
EFH (C30-C40)	2447 (2)	2930 (2)	49-123	16	20				
EFH (C8-C11)	79	74	49-123	7	20				
Batch number: 131600637003	Sample number(s): 7085553-7085554 UNSPK: P081064 BKG: P081064								
Aluminum	1690 (2)	1435 (2)	75-125	3	20	11,400	12,900	13	20
Antimony	77	78	75-125	1	20	3.85 U	3.85 U	0 (1)	20
Arsenic	106	104	75-125	2	20	3.64 J	4.46	20 (1)	20
Barium	108	103	75-125	3	20	81.5	97.6	18	20
Beryllium	105	104	75-125	1	20	0.444 J	0.527 J	17 (1)	20
Boron	102	102	75-125	0	20	1.73 J	1.31 J	27* (1)	20
Cadmium	99	98	75-125	1	20	0.342 J	0.338 J	1 (1)	20
Calcium	385 (2)	235 (2)	75-125	9	20	5,160	7,880	42*	20
Chromium	113	106	75-125	4	20	17.1	19.8	15	20
Cobalt	99	98	75-125	1	20	4.24	4.93	15 (1)	20
Copper	108	107	75-125	1	20	9.53 J	11.5	19 (1)	20
Iron	2592 (2)	918 (2)	75-125	7	20	20,400	23,100	12	20
Lead	102	96	75-125	4	20	5.26	6.05	14 (1)	20
Lithium	105	102	75-125	2	20	25.4	27.1	7	20
Magnesium	435 (2)	294 (2)	75-125	5	20	4,470	4,970	11	20
Manganese	164 (2)	142 (2)	75-125	3	20	259	275	6	20
Molybdenum	98	98	75-125	0	20	0.718 J	0.362 J	66* (1)	20
Nickel	103	102	75-125	1	20	7.30	9.54	27* (1)	20
Phosphorus	156*	108	75-125	9	20	371	449	19	20
Potassium	138*	100	75-125	9	20	2,990	3,300	10	20
Sodium	102	100	75-125	2	20	114	127	10 (1)	20
Tin	92	92	75-125	0	20	2.85 J	2.85 J	0 (1)	20
Titanium	368 (2)	282 (2)	75-125	5	20	1,190	1,320	11	20
Vanadium	114	109	75-125	3	20	30.4	33.6	10	20
Zinc	107	99	75-125	4	20	54.8	61.1	11	20
Zirconium	102	101	75-125	1	20	4.81 U	1.05 J	200* (1)	20
Batch number: 131600637003A	Sample number(s): 7085553-7085554 UNSPK: P081064 BKG: P081064								
Silver	106	103	75-125	2	20	0.192 U	0.0203 J	200* (1)	20
Strontium	124	115	75-125	3	20	16.6	22.6	31*	20
Thallium	93	91	75-125	1	20	0.263	0.266	1 (1)	20
Batch number: 131600637003B	Sample number(s): 7085553-7085554 UNSPK: P081064 BKG: P081064								
Selenium	114	106	75-125	7	20	0.385 U	0.385 U	0 (1)	20
Batch number: 131600638002	Sample number(s): 7085553-7085554 UNSPK: P081058 BKG: P081058								
3a Mercury 7471A	102	100	65-135	3	20	0.0148 J	0.0141 J	5 (1)	20
Batch number: 13158039402A	Sample number(s): 7085553-7085554 BKG: P085556								
15a pH by 9045D						6.45	6.42	0	3
Batch number: 13162162402A	Sample number(s): 7085553-7085554 BKG: P085556								
14a Moisture Content by 160.3						2.8	2.7	1	20
Batch number: 13165001	Sample number(s): 7085553-7085554 UNSPK: P085556								

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1395500
Reported: 06/20/13 at 02:02 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
2378-TCDD	97	98	40-135	2	20				
12378-PeCDD	100	100	40-135	4	20				
123478-HxCDD	107	108	40-135	3	20				
123678-HxCDD	105	106	40-135	3	20				
123789-HxCDD	106	105	40-135	4	20				
1234678-HpCDD	118	120	40-135	2	20				
OCDD	207*	221*	40-135	3	20				
2378-TCDF	104	103	40-135	4	20				
12378-PeCDF	106	106	40-135	3	20				
23478-PeCDF	105	107	40-135	1	20				
123478-HxCDF	108	108	40-135	3	20				
123678-HxCDF	107	107	40-135	3	20				
123789-HxCDF	108	109	40-135	3	20				
234678-HxCDF	107	107	40-135	3	20				
1234678-HpCDF	110	112	40-135	2	20				
1234789-HpCDF	106	107	40-135	2	20				
OCDF	114	114	40-135	3	20				

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 7a SVOC SIM EPA 8270D
Batch number: 13159SLD026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
7085553	80	83	92
7085554	85	91	96
Blank	85	93	96
LCS	85	93	99
MS	76	78	92
MSD	80	80	93
Limits:	54-129	61-134	55-129

Analysis Name: 20a Pesticides by EPA 8081B
Batch number: 131620007A

	Tetrachloro-m-xylene	Decachlorobiphenyl
7085554	102	128*
Blank	101	130*
LCS	103	129*
MS	99	160*
MSD	89	134*
Limits:	50-130	20-120

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1395500
Reported: 06/20/13 at 02:02 PM

Surrogate Quality Control

Analysis Name: 19a PCBs and PCTs 8082A
Batch number: 131620008A

	Tetrachloro-m-xylene	Decachlorobiphenyl
7085553	106	104
7085554	113	112
Blank	113	122*
LCS	121*	124*
LCSD	118	127*
MS	58	53
MSD	76	68
Limits:	45-120	45-120

Analysis Name: 10a TPH by EPA 8015B (DRO)
Batch number: 131610003A

	Chlorobenzene	Orthoterphenyl
7085553	83	85
7085554	85	86
Blank	86	82
LCS	90	91
MS	90	88
MSD	89	84
Limits:	37-125	66-123

Analysis Name: 23a Dioxin/Furan by EPA 1613B
Batch number: 13165001

	13C12-2378-TCDD	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF	13C12-234678-HxCDF	13C12-123789-HxCDF
7085553	72	75	80	82	81	79
7085554	67	76	81	84	86	82
Blank	66	75	87	96	89	83
MS	69	77	82	89	87	79
MSD	64	70	78	80	86	78
OPR	59	68	73	83	75	61
Limits:	25-164	21-178	26-152	26-123	28-136	29-147

	13C12-1234678-HpCDF	13C12-1234789-HpCDF	13C12-OCDF	13C12-12378-PeCDD	13C12-123478-HxCDD	13C12-123678-HxCDD
7085553	82	75	76	72	73	75
7085554	93	76	74	73	76	81
Blank	119	78	75	73	80	85
MS	107	69	62	75	80	80
MSD	85	70	68	68	74	75
OPR	99	53	45	66	70	71
Limits:	28-143	26-138	17-157	25-181	32-141	28-130

	13C12-123789-HxCDD	13C12-1234678-HpCDD	13C12-OCDD	13C12-2378-TCDF	13C12-12378-PeCDF
7085553	74	73	77	70	75
7085554	78	77	80	64	74
Blank	82	86	89	64	78

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1395500
Reported: 06/20/13 at 02:02 PM

Surrogate Quality Control

MS	78	75	76	65	80
MSD	73	70	69	59	69
OPR	70	67	67	57	73
Limits:	28-130	23-140	17-157	24-169	24-185

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

acct# 13013 Cp# 1395500 sample# 7085553-54

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 6/6/2013
CarrierName: FedEx
AirbillNo: 799943102615

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20130606-01
Cooler #: 1
Lab: Lancaster
Lab Phone: 717-556-7259
Lab Address: 2425 New Holland Pike, Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Other Analysis/Notes
SL-514-SA7-SB-0.0-0.5	6/6/13 08:55	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-514-SA7-SB-0.0-0.5	6/6/13 08:55	SO	None	1 - 4 oz glass	10 day														X																		
SL-515-SA7-SB-0.0-0.5	6/6/13 09:15	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X							X				X											
SL-515-SA7-SB-0.0-0.5	6/6/13 09:15	SO	None	1 - 4 oz glass	10 day														X																		

Special Instructions:

Sampler: V. Cook

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
[illegible]	06/06/13	1600									
									[illegible]	6/7/13	0900

Subarea 7

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C#1395500

Environmental Sample Administration Receipt Documentation Log

Client/Project: CDM Smith

Date of Receipt: 6/7/13

Time of Receipt: 0920

Source Code: 50-1

Shipping Container Sealed: YES NO

Custody Seal Present * : YES NO

* Custody seal was intact unless otherwise noted in the discrepancy section

Package: Chilled Not Chilled

Temperature of Shipping Containers							
Cooler #	Thermometer ID	Temperature (°C)	Temp Bottle (TB) or Surface Temp (ST)	Wet Ice (WI) or Dry Ice (DI) or Ice Packs (IP)	Ice Present? Y/N	Loose (L) Bagged Ice (B) or NA	Comments
1	1396	4.0	ST	WI	Y	B	
2							
3							
4							
5							
6							

Number of Trip Blanks received NOT listed on chain of custody: ∅

Paperwork Discrepancy/Unpacking Problems:

Unpacker Signature/Emp#: [illegible] 3647 **Date/Time:** 6/7/13 1030

Issued by Dept. 6042 Management

2174.06

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	**BMQL**	Below Minimum Quantitation Level
N.D.	none detected	**MPN**	Most Probable Number
TNTC	Too Numerous To Count	**CP Units**	cobalt-chloroplatinate units
IU	International Units	**NTU**	nephelometric turbidity units
umhos/cm	micromhos/cm	**ng**	nanogram(s)
C	degrees Celsius	**F**	degrees Fahrenheit
meq	milliequivalents	**lb.**	pound(s)
g	gram(s)	**kg**	kilogram(s)
µg	microgram(s)	**mg**	milligram(s)
mL	milliliter(s)	**L**	liter(s)
m3	cubic meter(s)	**µL**	microliter(s)
		pg/L	picogram/liter

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

J estimated value – The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	**B**	Value is <CRDL, but ≥IDL
B	Analyte was also detected in the blank	**E**	Estimated due to interference
C	Pesticide result confirmed by GC/MS	**M**	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	**N**	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	**S**	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	**U**	Compound was not detected
P	Concentration difference between primary and confirmation columns >25%	**W**	Post digestion spike out of control limits
U	Compound was not detected	*****	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	**+**	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as “analyze immediately” are not performed within 15 minutes.

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ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

October 17, 2013

Project: SSFL Phase 3 Sampling

Submittal Date: 10/03/2013
Group Number: 1423512
SDG: PH121
PO Number: 1204-002-001-AL
State of Sample Origin: CA

Client Sample Description	Lancaster Labs (LL) #
EB2-100213 Water	7222777
SL-541-SA7-SB-0.0-0.5 Soil	7222778
SL-541-SA7-SB-2.0-3.0 Soil	7222779
TB2-100213 Water	7222780

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO Eurofins Lancaster Labs Env Attn: Nicole Maljovec

Respectfully Submitted,

Nicole L. Maljovec
Principal Specialist Group Leader

(717) 556-7259

Sample Description: EB2-100213 Water
SSFL Phase 3 Subarea 7

LL Sample # WW 7222777
LL Group # 1423512
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 10/02/2013 14:30 by PH

Submitted: 10/03/2013 10:05
Reported: 10/17/2013 15:05

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

21EB2 SDG#: PH121-01EB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/l**		**ug/l**	**ug/l**	
12971	Acenaphthene	83-32-9	0.053	U	0.053	0.011	1
12971	Acenaphthylene	208-96-8	0.053	U	0.053	0.011	1
12971	Anthracene	120-12-7	0.053	U	0.053	0.011	1
12971	Benzo(a)anthracene	56-55-3	0.053	U	0.053	0.011	1
12971	Benzo(a)pyrene	50-32-8	0.053	U	0.053	0.011	1
12971	Benzo(b)fluoranthene	205-99-2	0.053	U	0.053	0.011	1
12971	Benzo(e)pyrene	192-97-2	0.053	U	0.053	0.011	1
12971	Benzo(g,h,i)perylene	191-24-2	0.053	U	0.053	0.011	1
12971	Benzo(k)fluoranthene	207-08-9	0.053	U	0.053	0.011	1
12971	Butylbenzylphthalate	85-68-7	1.1	U	1.1	0.053	1
12971	Di-n-butylphthalate	84-74-2	0.25	J	1.1	0.053	1
12971	Chrysene	218-01-9	0.053	U	0.053	0.011	1
12971	Dibenz(a,h)anthracene	53-70-3	0.053	U	0.053	0.011	1
12971	Diethylphthalate	84-66-2	0.29	J	1.1	0.053	1
12971	Dimethylphthalate	131-11-3	1.1	U	1.1	0.053	1
12971	Bis(2-Ethylhexyl)phthalate	117-81-7	0.41	J	1.1	0.053	1
12971	Fluoranthene	206-44-0	0.053	U	0.053	0.011	1
12971	Fluorene	86-73-7	0.053	U	0.053	0.011	1
12971	Indeno(1,2,3-cd)pyrene	193-39-5	0.053	U	0.053	0.011	1
12971	1-Methylnaphthalene	90-12-0	0.053	U	0.053	0.011	1
12971	2-Methylnaphthalene	91-57-6	0.053	U	0.053	0.011	1
12971	Naphthalene	91-20-3	0.053	U	0.053	0.032	1
12971	N-Nitrosodimethylamine	62-75-9	0.053	U	0.053	0.011	1
12971	Di-n-octylphthalate	117-84-0	1.1	U	1.1	0.053	1
12971	Phenanthrene	85-01-8	0.053	U	0.053	0.032	1
12971	Pyrene	129-00-0	0.053	U	0.053	0.011	1

The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. Sufficient sample was not available to repeat the analysis.

GC Volatiles	**TPH GRO SW-8015B**		**ug/l**		**ug/l**	**ug/l**	
08229	TPH-GRO S.CA water C5-C12	n.a.	50	U	50	20	1
Pesticides/PCBs	**SW-846 8082A**		**ug/l**		**ug/l**	**ug/l**	
13092	Aroclor 5432	63496-31-1	0.42	U	0.42	0.084	1
13092	Aroclor 5442	12642-23-8	0.42	U	0.42	0.084	1
13092	Aroclor 5460	11126-42-4	0.42	U	0.42	0.092	1
13092	PCB-1016	12674-11-2	0.42	U	0.42	0.084	1
13092	PCB-1221	11104-28-2	0.42	U	0.42	0.084	1
13092	PCB-1232	11141-16-5	0.42	U	0.42	0.17	1
13092	PCB-1242	53469-21-9	0.42	U	0.42	0.084	1
13092	PCB-1248	12672-29-6	0.42	U	0.42	0.084	1
13092	PCB-1254	11097-69-1	0.42	U	0.42	0.084	1
13092	PCB-1260	11096-82-5	0.42	U	0.42	0.13	1
13092	PCB-1262	37324-23-5	0.42	U	0.42	0.17	1
13092	PCB-1268	11100-14-4	0.42	U	0.42	0.13	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/l**		**mg/l**	**mg/l**	

*=This limit was used in the evaluation of the final result

eurofins
Lancaster Laboratories Environmental
2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Analysis Report

Sample Description: EB2-100213 Water
SSFL Phase 3 Subarea 7

LL Sample # WW 7222777
LL Group # 1423512
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 10/02/2013 14:30 by PH

Submitted: 10/03/2013 10:05
Reported: 10/17/2013 15:05

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

21EB2 SDG#: PH121-01EB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/l**	**mg/l**	**mg/l**	
10365	EFH (C12-C14)	n.a.	0.096 U	0.096	0.048	1
10365	EFH (C15-C20)	n.a.	0.096 U	0.096	0.048	1
10365	EFH (C21-C30)	n.a.	0.096 U	0.096	0.048	1
10365	EFH (C30 - C40)	n.a.	0.48 U	0.48	0.096	1
10365	EFH (C8-C11)	n.a.	0.096 U	0.096	0.048	1

The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.
For all QC parameters which are outside project defined limits, but within the laboratory statistical limits, no corrective action is taken.

Metals	**SW-846 6010C**		**mg/l**	**mg/l**	**mg/l**	
01743	Aluminum	7429-90-5	0.400 U	0.400	0.0828	1
07044	Antimony	7440-36-0	0.0400 U	0.0400	0.0053	1
07035	Arsenic	7440-38-2	0.0400 U	0.0400	0.0068	1
07046	Barium	7440-39-3	0.0100 U	0.0100	0.00033	1
07047	Beryllium	7440-41-7	0.0100 U	0.0100	0.00067	1
08014	Boron	7440-42-8	0.100 U	0.100	0.0084	1
07049	Cadmium	7440-43-9	0.0100 U	0.0100	0.00076	1
01750	Calcium	7440-70-2	0.400 U	0.400	0.0334	1
07051	Chromium	7440-47-3	0.0300 U	0.0300	0.0016	1
07052	Cobalt	7440-48-4	0.0100 U	0.0100	0.0013	1
07053	Copper	7440-50-8	0.0200 U	0.0200	0.0027	1
01754	Iron	7439-89-6	0.400 U	0.400	0.0430	1
07055	Lead	7439-92-1	0.0300 U	0.0300	0.0047	1
01756	Lithium	7439-93-2	0.0400 U	0.0400	0.0047	1
01757	Magnesium	7439-95-4	0.200 U	0.200	0.0167	1
07058	Manganese	7439-96-5	0.0100 U	0.0100	0.00083	1
07060	Molybdenum	7439-98-7	0.0027 J	0.0200	0.0017	1
07061	Nickel	7440-02-0	0.0200 U	0.0200	0.0015	1
10143	Phosphorus	7723-14-0	0.200 U	0.200	0.0418	1
01762	Potassium	7440-09-7	1.00 U	1.00	0.0980	1
01767	Sodium	7440-23-5	2.00 U	2.00	0.167	1
07069	Tin	7440-31-5	0.0400 U	0.0400	0.0029	1
07070	Titanium	7440-32-6	0.0200 U	0.0200	0.0017	1
07071	Vanadium	7440-62-2	0.0100 U	0.0100	0.0020	1
07072	Zinc	7440-66-6	0.0400 U	0.0400	0.0020	1
10144	Zirconium	7440-67-7	0.100 U	0.100	0.0084	1
	SW-846 6020A		**mg/l**	**mg/l**	**mg/l**	
06041	Selenium	7782-49-2	0.0040 U	0.0040	0.00050	1
06042	Silver	7440-22-4	0.0010 U	0.0010	0.00011	1
06044	Strontium	7440-24-6	0.0020 U	0.0020	0.00034	1
06045	Thallium	7440-28-0	0.0010 U	0.0010	0.00015	1
	SW-846 7470A		**mg/l**	**mg/l**	**mg/l**	
00259	3b Mercury 7470A	7439-97-6	0.00020 U	0.00020	0.000060	1
Wet Chemistry	**SW-846 9040C**		**Std. Units**	**Std. Units**	**Std. Units**	

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: EB2-100213 Water
SSFL Phase 3 Subarea 7

LL Sample # WW 7222777
LL Group # 1423512
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 10/02/2013 14:30 by PH

Submitted: 10/03/2013 10:05
Reported: 10/17/2013 15:05

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

21EB2 SDG#: PH121-01EB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
Wet Chemistry	**SW-846 9040C**		**Std. Units**	**Std. Units**	**Std. Units**	
12152	28b pH (9040B and 9040C)	n.a.	7.1	0.010	0.010	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: EB2-100213 Water
SSFL Phase 3 Subarea 7

LL Sample # WW 7222777
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Project Name: SSFL Phase 3 Sampling

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CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

21EB2 SDG#: PH121-01EB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received MRL*	As Received EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		pg/l		pg/l	pg/l	
10915	2378-TCDD	1746-01-6	1.93	U	1.93	0.387	1
10915	12378-PeCDD	40321-76-4	0.317	JBQ	9.67	0.255	1
10915	123478-HxCDD	39227-28-6	9.67	U	9.67	0.195	1
10915	123678-HxCDD	57653-85-7	0.258	JB	9.67	0.203	1
10915	123789-HxCDD	19408-74-3	0.321	JBQ	9.67	0.190	1
10915	1234678-HpCDD	35822-46-9	0.531	JB	9.67	0.182	1
10915	OCDD	3268-87-9	1.33	JBQ	19.3	0.342	1
10915	2378-TCDF	51207-31-9	1.93	U	1.93	0.267	1
10915	12378-PeCDF	57117-41-6	0.550	JBQ	9.67	0.145	1
10915	23478-PeCDF	57117-31-4	0.285	JBQ	9.67	0.133	1
10915	123478-HxCDF	70648-26-9	0.297	JB	9.67	0.114	1
10915	123678-HxCDF	57117-44-9	0.210	JBQ	9.67	0.113	1
10915	123789-HxCDF	72918-21-9	9.67	U	9.67	0.107	1
10915	234678-HxCDF	60851-34-5	0.363	JBQ	9.67	0.102	1
10915	1234678-HpCDF	67562-39-4	0.342	JBQ	9.67	0.0854	1
10915	1234789-HpCDF	55673-89-7	0.249	JBQ	9.67	0.0916	1
10915	OCDF	39001-02-0	1.23	JBQ	19.3	0.248	1
Toxic Equivalents	**EPA 1613B**		pg/l		pg/l	pg/l	
10915	TEQ WHO 2005 - EDLx0.0	n.a.	0.0608				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	70	25 - 164
13C12-12378-PeCDD	76	25 - 181
13C12-123478-HxCDD	82	32 - 141
13C12-123678-HxCDD	80	28 - 130
13C12-123789-HxCDD	81	28 - 130
13C12-1234678-HpCDD	91	23 - 140
13C12-OCDD	101	17 - 157
13C12-2378-TCDF	70	24 - 169
13C12-12378-PeCDF	75	24 - 185
13C12-23478-PeCDF	76	21 - 178
13C12-123478-HxCDF	77	26 - 152
13C12-123678-HxCDF	77	26 - 123
13C12-234678-HxCDF	79	28 - 136
13C12-123789-HxCDF	88	29 - 147
13C12-1234678-HpCDF	86	28 - 143
13C12-1234789-HpCDF	92	26 - 138
13C12-OCDF	101	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration

*=This limit was used in the evaluation of the final result

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Environmental

Analysis Report

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Sample Description: EB2-100213 Water
SSFL Phase 3 Subarea 7

LL Sample # WW 7222777
LL Group # 1423512
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 10/02/2013 14:30 by PH

Submitted: 10/03/2013 10:05
Reported: 10/17/2013 15:05

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

21EB2 SDG#: PH121-01EB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received MRL*	As Received EDL	Dilution Factor

F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: EB2-100213 Water
SSFL Phase 3 Subarea 7

LL Sample # WW 7222777
LL Group # 1423512
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 10/02/2013 14:30 by PH

Submitted: 10/03/2013 10:05
Reported: 10/17/2013 15:05

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

21EB2 SDG#: PH121-01EB

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
12971	7b SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13282WAI026	10/13/2013	16:50	Catherine E Bachman	1
10466	BNA Water Extraction SIM	SW-846 3510C	1	13282WAI026	10/09/2013	16:55	JoElla L Rice	1
08229	11b TPH by EPA 8015B GRO	TPH GRO SW-8015B	1	13277A20A	10/07/2013	13:07	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	13277A20A	10/07/2013	13:07	Marie D Beamenderfer	1
13092	21b PCBs and PCTs 8082A	SW-846 8082A	1	132800002A	10/08/2013	12:34	Monica M Souders	1
13093	PCB/PCT Waters Update IV	SW-846 3510C	1	132800002A	10/07/2013	16:30	Seth A Farrier	1
10365	10b TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	132800018A	10/08/2013	19:03	Heather E Williams	1
11203	EFH Waters Extraction	SW-846 3510C	1	132800018A	10/07/2013	23:00	Karen L Beyer	1
10915	17b Dioxin/Furan by EPA 1613B	EPA 1613B	1	13281001	10/10/2013	17:33	Joseph D Anderson	1
10914	Dioxins/Furans in Water - SepF	EPA 1613B	1	13281001	10/08/2013	08:30	Deborah M Zimmerman	1
01743	Aluminum	SW-846 6010C	1	132810635001	10/12/2013	11:33	Katlin N Cataldi	1
07044	Antimony	SW-846 6010C	1	132810635001	10/12/2013	11:33	Katlin N Cataldi	1
07035	Arsenic	SW-846 6010C	1	132810635001	10/12/2013	11:33	Katlin N Cataldi	1
07046	Barium	SW-846 6010C	1	132810635001	10/12/2013	11:33	Katlin N Cataldi	1
07047	Beryllium	SW-846 6010C	1	132810635001	10/12/2013	11:33	Katlin N Cataldi	1
08014	Boron	SW-846 6010C	1	132810635001	10/12/2013	11:33	Katlin N Cataldi	1
07049	Cadmium	SW-846 6010C	1	132810635001	10/12/2013	11:33	Katlin N Cataldi	1
01750	Calcium	SW-846 6010C	1	132810635001	10/12/2013	11:33	Katlin N Cataldi	1
07051	Chromium	SW-846 6010C	1	132810635001	10/12/2013	11:33	Katlin N Cataldi	1
07052	Cobalt	SW-846 6010C	1	132810635001	10/12/2013	11:33	Katlin N Cataldi	1
07053	Copper	SW-846 6010C	1	132810635001	10/12/2013	11:33	Katlin N Cataldi	1
01754	Iron	SW-846 6010C	1	132810635001	10/12/2013	11:33	Katlin N Cataldi	1
07055	Lead	SW-846 6010C	1	132810635001	10/12/2013	11:33	Katlin N Cataldi	1
01756	Lithium	SW-846 6010C	1	132810635001	10/12/2013	11:33	Katlin N Cataldi	1
01757	Magnesium	SW-846 6010C	1	132810635001	10/12/2013	11:33	Katlin N Cataldi	1
07058	Manganese	SW-846 6010C	1	132810635001	10/12/2013	11:33	Katlin N Cataldi	1
07060	Molybdenum	SW-846 6010C	1	132810635001	10/12/2013	11:33	Katlin N Cataldi	1
07061	Nickel	SW-846 6010C	1	132810635001	10/12/2013	11:33	Katlin N Cataldi	1
10143	Phosphorus	SW-846 6010C	1	132810635001	10/12/2013	11:33	Katlin N Cataldi	1
01762	Potassium	SW-846 6010C	1	132810635001	10/12/2013	11:33	Katlin N Cataldi	1
01767	Sodium	SW-846 6010C	1	132810635001	10/12/2013	11:33	Katlin N Cataldi	1
07069	Tin	SW-846 6010C	1	132810635001	10/12/2013	11:33	Katlin N Cataldi	1
07070	Titanium	SW-846 6010C	1	132810635001	10/12/2013	11:33	Katlin N Cataldi	1
07071	Vanadium	SW-846 6010C	1	132810635001	10/12/2013	11:33	Katlin N Cataldi	1
07072	Zinc	SW-846 6010C	1	132810635001	10/12/2013	11:33	Katlin N Cataldi	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: EB2-100213 Water
SSFL Phase 3 Subarea 7

LL Sample # WW 7222777
LL Group # 1423512
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 10/02/2013 14:30 by PH

Submitted: 10/03/2013 10:05
Reported: 10/17/2013 15:05

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

21EB2 SDG#: PH121-01EB

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10144	Zirconium	SW-846 6010C	1	132810635001	10/12/2013 11:33	Katlin N Cataldi	1
06041	Selenium	SW-846 6020A	1	132810639001B	10/14/2013 11:13	Choon Y Tian	1
06042	Silver	SW-846 6020A	1	132810639001A	10/14/2013 11:13	Choon Y Tian	1
06044	Strontium	SW-846 6020A	1	132810639001A	10/14/2013 11:13	Choon Y Tian	1
06045	Thallium	SW-846 6020A	1	132810639001A	10/14/2013 11:13	Choon Y Tian	1
00259	3b Mercury 7470A	SW-846 7470A	1	132845713016	10/13/2013 12:07	Damary Valentin	1
10635	WW SW846(IV) ICP Dig (tot rec)	SW-846 3005A	1	132810635001	10/09/2013 10:33	James L Mertz	1
10639	ICP/MS SW846 (IV) Water Digest	SW-846 3010A modified	1	132810639001	10/09/2013 11:02	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	132845713016	10/12/2013 14:00	Damary Valentin	1
12152	28b pH (9040B and 9040C)	SW-846 9040C	1	13276003101A	10/03/2013 18:24	Michele L Graham	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-541-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LL Sample # SW 7222778
LL Group # 1423512
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 10/02/2013 08:45 by VC

Submitted: 10/03/2013 10:05
Reported: 10/17/2013 15:05

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

54100 SDG#: PH121-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	18	U	18	7.0	10
12969	Acenaphthylene	208-96-8	18	U	18	3.5	10
12969	Anthracene	120-12-7	18	U	18	3.5	10
12969	Benzo(a)anthracene	56-55-3	18	U	18	7.0	10
12969	Benzo(a)pyrene	50-32-8	18	U	18	7.0	10
12969	Benzo(b)fluoranthene	205-99-2	18	U	18	7.0	10
12969	Benzo(e)pyrene	192-97-2	180	U	180	35	10
12969	Benzo(g,h,i)perylene	191-24-2	18	U	18	7.0	10
12969	Benzo(k)fluoranthene	207-08-9	18	U	18	7.0	10
12969	Butylbenzylphthalate	85-68-7	190	U	190	63	10
12969	Di-n-butylphthalate	84-74-2	190	U	190	63	10
12969	Chrysene	218-01-9	18	U	18	3.5	10
12969	Dibenz(a,h)anthracene	53-70-3	18	U	18	7.0	10
12969	Diethylphthalate	84-66-2	190	U	190	63	10
12969	Dimethylphthalate	131-11-3	190	U	190	63	10
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	190	U	190	63	10
12969	Fluoranthene	206-44-0	18	U	18	7.0	10
12969	Fluorene	86-73-7	18	U	18	7.0	10
12969	Indeno(1,2,3-cd)pyrene	193-39-5	18	U	18	7.0	10
12969	1-Methylnaphthalene	90-12-0	18	U	18	7.0	10
12969	2-Methylnaphthalene	91-57-6	18	U	18	7.0	10
12969	Naphthalene	91-20-3	18	U	18	7.0	10
12969	N-Nitrosodimethylamine	62-75-9	18	U	18	7.0	10
12969	Di-n-octylphthalate	117-84-0	190	U	190	63	10
12969	Phenanthrene	85-01-8	18	U	18	7.0	10
12969	Pyrene	129-00-0	18	U	18	7.0	10

Reporting limits were raised due to interference from the sample matrix.

Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
10592	Aroclor 5432	63496-31-1	35	U	35	10	1
10592	Aroclor 5442	12642-23-8	35	U	35	10	1
10592	Aroclor 5460	11126-42-4	35	U	35	10	1
10592	PCB-1016	12674-11-2	18	U	18	3.5	1
10592	PCB-1221	11104-28-2	18	U	18	5.3	1
10592	PCB-1232	11141-16-5	18	U	18	4.3	1
10592	PCB-1242	53469-21-9	18	U	18	4.3	1
10592	PCB-1248	12672-29-6	18	U	18	3.5	1
10592	PCB-1254	11097-69-1	18	U	18	4.6	1
10592	PCB-1260	11096-82-5	18	U	18	4.1	1
10592	PCB-1262	37324-23-5	18	U	18	3.5	1
10592	PCB-1268	11100-14-4	18	U	18	3.5	1

For all QC parameters which are outside project defined limits, but within the laboratory statistical limits, no corrective action is taken.
The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. Since the recovery is high and the target analyte(s) was not detected in the sample, the data is reported.

GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-541-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LL Sample # SW 7222778
LL Group # 1423512
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 10/02/2013 08:45 by VC

Submitted: 10/03/2013 10:05
Reported: 10/17/2013 15:05

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

54100 SDG#: PH121-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.3	U	5.3	2.1	1
12952	EFH (C15-C20)	n.a.	5.3	U	5.3	2.1	1
12952	EFH (C21-C30)	n.a.	4.5	J	5.3	2.1	1
12952	EFH (C30-C40)	n.a.	18		11	4.2	1
12952	EFH (C8-C11)	n.a.	5.3	U	5.3	2.1	1
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	10,800		42.3	7.63	1
06944	Antimony	7440-36-0	4.23	U	4.23	0.783	1
06935	Arsenic	7440-38-2	2.05	J	4.23	0.741	1
06946	Barium	7440-39-3	81.0		1.06	0.0349	1
06947	Beryllium	7440-41-7	0.402	J	1.06	0.0709	1
07914	Boron	7440-42-8	5.20	J	10.6	0.889	1
06949	Cadmium	7440-43-9	0.210	J	1.06	0.0804	1
01650	Calcium	7440-70-2	3,350		21.2	3.53	1
06951	Chromium	7440-47-3	13.2		3.17	0.169	1
06952	Cobalt	7440-48-4	5.90		1.06	0.105	1
06953	Copper	7440-50-8	10.5		2.12	0.307	1
01654	Iron	7439-89-6	16,400		42.3	3.83	1
06955	Lead	7439-92-1	4.47		3.17	0.529	1
01656	Lithium	7439-93-2	17.6		4.2	0.36	1
01657	Magnesium	7439-95-4	3,720		10.6	1.77	1
06958	Manganese	7439-96-5	274		1.06	0.0878	1
06960	Molybdenum	7439-98-7	1.41	J	2.12	0.180	1
06961	Nickel	7440-02-0	7.67		2.12	0.138	1
10145	Phosphorus	7723-14-0	516		10.6	3.06	1
01662	Potassium	7440-09-7	2,340		106	8.83	1
01667	Sodium	7440-23-5	114		106	17.7	1
06969	Tin	7440-31-5	2.29	J	10.6	0.233	1
06970	Titanium	7440-32-6	735		1.06	0.180	1
06971	Vanadium	7440-62-2	26.4		1.06	0.138	1
06972	Zinc	7440-66-6	42.5		4.23	0.212	1
10146	Zirconium	7440-67-7	1.91	J	5.29	0.889	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.572		0.423	0.106	2
06142	Silver	7440-22-4	0.212	U	0.212	0.0275	2
06144	Strontium	7440-24-6	19.4		1.06	0.180	5
06145	Thallium	7440-28-0	0.259		0.212	0.0317	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0194		0.0164	0.0099	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045D	n.a.	8.06		0.0100	0.0100	1
	The pH was measured in water at 21 C.						

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-541-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LL Sample # SW 7222778
LL Group # 1423512
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 10/02/2013 08:45 by VC

Submitted: 10/03/2013 10:05
Reported: 10/17/2013 15:05

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

54100 SDG#: PH121-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Wet Chemistry	**EPA 160.3 modified**		%	%	%	
11624	14a Moisture Content by 160.3	n.a.	5.5	0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.					

*=This limit was used in the evaluation of the final result

Sample Description: SL-541-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LL Sample # SW 7222778
LL Group # 1423512
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 10/02/2013 08:45 by VC

Submitted: 10/03/2013 10:05
Reported: 10/17/2013 15:05

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

54100 SDG#: PH121-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	1.06	U	1.06	0.148	1
11031	12378-PeCDD	40321-76-4	5.29	U	5.29	0.107	1
11031	123478-HxCDD	39227-28-6	5.29	U	5.29	0.0751	1
11031	123678-HxCDD	57653-85-7	0.150	J	5.29	0.0836	1
11031	123789-HxCDD	19408-74-3	0.121	JQ	5.29	0.0790	1
11031	1234678-HpCDD	35822-46-9	5.48	B	5.29	0.132	1
11031	OCDD	3268-87-9	56.2	B	10.6	0.0731	1
11031	2378-TCDF	51207-31-9	1.06	U	1.06	0.122	1
11031	12378-PeCDF	57117-41-6	5.29	U	5.29	0.0771	1
11031	23478-PeCDF	57117-31-4	5.29	U	5.29	0.0678	1
11031	123478-HxCDF	70648-26-9	0.117	JQ	5.29	0.0628	1
11031	123678-HxCDF	57117-44-9	0.0774	JBQ	5.29	0.0604	1
11031	123789-HxCDF	72918-21-9	5.29	U	5.29	0.0608	1
11031	234678-HxCDF	60851-34-5	0.103	JQ	5.29	0.0578	1
11031	1234678-HpCDF	67562-39-4	0.747	JB	5.29	0.0417	1
11031	1234789-HpCDF	55673-89-7	0.115	JQ	5.29	0.0517	1
11031	OCDF	39001-02-0	1.30	JBQ	10.6	0.0871	1
Toxic Equivalents	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.0942				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	73	25 - 164
13C12-12378-PeCDD	75	25 - 181
13C12-123478-HxCDD	77	32 - 141
13C12-123678-HxCDD	83	28 - 130
13C12-123789-HxCDD	82	28 - 130
13C12-1234678-HpCDD	91	23 - 140
13C12-OCDD	103	17 - 157
13C12-2378-TCDF	67	24 - 169
13C12-12378-PeCDF	69	24 - 185
13C12-23478-PeCDF	71	21 - 178
13C12-123478-HxCDF	74	26 - 152
13C12-123678-HxCDF	79	26 - 123
13C12-234678-HxCDF	81	28 - 136
13C12-123789-HxCDF	97	29 - 147
13C12-1234678-HpCDF	89	28 - 143
13C12-1234789-HpCDF	88	26 - 138
13C12-OCDF	97	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration

*=This limit was used in the evaluation of the final result

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Environmental

Analysis Report

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Sample Description: SL-541-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LL Sample # SW 7222778
LL Group # 1423512
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 10/02/2013 08:45 by VC

Submitted: 10/03/2013 10:05
Reported: 10/17/2013 15:05

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

54100 SDG#: PH121-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-541-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

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LL Group # 1423512
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Project Name: SSFL Phase 3 Sampling

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3201 Jermantown Road
Suite 400
Fairfax VA 22030

54100 SDG#: PH121-02

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13280SLE026	10/09/2013 05:41	Mark A Clark	10
10811	BNA Soil Microwave SIM	SW-846 3546	1	13280SLE026	10/08/2013 09:25	Anna E Stager	1
10592	19a PCBs and PCTs 8082A	SW-846 8082A	1	132780008A	10/08/2013 04:15	Monica M Souders	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	132780008A	10/07/2013 05:20	Roman Kuropatkin	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	132800038A	10/09/2013 02:09	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	132800038A	10/08/2013 07:15	Joseph S Feister	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13283005	10/14/2013 16:40	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13283005	10/10/2013 10:20	Robert Brown	1
01643	Aluminum	SW-846 6010C	1	132810637001	10/14/2013 13:30	Eric L Eby	1
06944	Antimony	SW-846 6010C	1	132810637001	10/14/2013 13:30	Eric L Eby	1
06935	Arsenic	SW-846 6010C	1	132810637001	10/14/2013 13:30	Eric L Eby	1
06946	Barium	SW-846 6010C	1	132810637001	10/14/2013 13:30	Eric L Eby	1
06947	Beryllium	SW-846 6010C	1	132810637001	10/14/2013 13:30	Eric L Eby	1
07914	Boron	SW-846 6010C	1	132810637001	10/14/2013 13:30	Eric L Eby	1
06949	Cadmium	SW-846 6010C	1	132810637001	10/14/2013 13:30	Eric L Eby	1
01650	Calcium	SW-846 6010C	1	132810637001	10/14/2013 13:30	Eric L Eby	1
06951	Chromium	SW-846 6010C	1	132810637001	10/14/2013 13:30	Eric L Eby	1
06952	Cobalt	SW-846 6010C	1	132810637001	10/14/2013 13:30	Eric L Eby	1
06953	Copper	SW-846 6010C	1	132810637001	10/14/2013 13:30	Eric L Eby	1
01654	Iron	SW-846 6010C	1	132810637001	10/14/2013 13:30	Eric L Eby	1
06955	Lead	SW-846 6010C	1	132810637001	10/14/2013 13:30	Eric L Eby	1
01656	Lithium	SW-846 6010C	1	132810637001	10/14/2013 13:30	Eric L Eby	1
01657	Magnesium	SW-846 6010C	1	132810637001	10/14/2013 13:30	Eric L Eby	1
06958	Manganese	SW-846 6010C	1	132810637001	10/14/2013 13:30	Eric L Eby	1
06960	Molybdenum	SW-846 6010C	1	132810637001	10/14/2013 13:30	Eric L Eby	1
06961	Nickel	SW-846 6010C	1	132810637001	10/14/2013 13:30	Eric L Eby	1
10145	Phosphorus	SW-846 6010C	1	132810637001	10/14/2013 13:30	Eric L Eby	1
01662	Potassium	SW-846 6010C	1	132810637001	10/14/2013 13:30	Eric L Eby	1
01667	Sodium	SW-846 6010C	1	132810637001	10/14/2013 13:30	Eric L Eby	1
06969	Tin	SW-846 6010C	1	132810637001	10/14/2013 13:30	Eric L Eby	1
06970	Titanium	SW-846 6010C	1	132810637001	10/14/2013 13:30	Eric L Eby	1
06971	Vanadium	SW-846 6010C	1	132810637001	10/14/2013 13:30	Eric L Eby	1
06972	Zinc	SW-846 6010C	1	132810637001	10/14/2013 13:30	Eric L Eby	1
10146	Zirconium	SW-846 6010C	1	132810637001	10/14/2013 13:30	Eric L Eby	1
06141	Selenium	SW-846 6020A	1	132810637001B	10/14/2013 07:57	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	132810637001A	10/14/2013 07:57	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	132810637001A	10/14/2013 09:21	Choon Y Tian	5
06145	Thallium	SW-846 6020A	1	132810637001A	10/14/2013 07:57	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

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Analysis Report

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Sample Description: SL-541-SA7-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 7

LL Sample # SW 7222778
LL Group # 1423512
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 10/02/2013 08:45 by VC

Submitted: 10/03/2013 10:05
Reported: 10/17/2013 15:05

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

54100 SDG#: PH121-02

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00159	3a Mercury 7471A	SW-846 7471B	1	132810638001	10/10/2013 06:53	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	132810637001	10/09/2013 10:20	James L Mertz	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	132810638001	10/09/2013 14:15	Denise K Conners	1
00394	15a pH by 9045D	SW-846 9045D modified	1	13276039404B	10/03/2013 23:25	Michelle L Lalli	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13283162401B	10/11/2013 00:56	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-541-SA7-SB-2.0-3.0 Soil
SSFL Phase 3 Subarea 7

LL Sample # SW 7222779
LL Group # 1423512
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 10/02/2013 08:50 by VC

Submitted: 10/03/2013 10:05
Reported: 10/17/2013 15:05

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

54123 SDG#: PH121-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.69	1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.34	1
12969	Anthracene	120-12-7	1.7	U	1.7	0.34	1
12969	Benzo(a)anthracene	56-55-3	1.7	U	1.7	0.69	1
12969	Benzo(a)pyrene	50-32-8	1.7	U	1.7	0.69	1
12969	Benzo(b)fluoranthene	205-99-2	1.7	U	1.7	0.69	1
12969	Benzo(e)pyrene	192-97-2	17	U	17	3.4	1
12969	Benzo(g,h,i)perylene	191-24-2	1.7	U	1.7	0.69	1
12969	Benzo(k)fluoranthene	207-08-9	1.7	U	1.7	0.69	1
12969	Butylbenzylphthalate	85-68-7	18	U	18	6.2	1
12969	Di-n-butylphthalate	84-74-2	18	U	18	6.2	1
12969	Chrysene	218-01-9	0.42	J	1.7	0.34	1
12969	Dibenz(a,h)anthracene	53-70-3	1.7	U	1.7	0.69	1
12969	Diethylphthalate	84-66-2	18	U	18	6.2	1
12969	Dimethylphthalate	131-11-3	18	U	18	6.2	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	18	U	18	6.2	1
12969	Fluoranthene	206-44-0	1.7	U	1.7	0.69	1
12969	Fluorene	86-73-7	1.7	U	1.7	0.69	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.7	U	1.7	0.69	1
12969	1-Methylnaphthalene	90-12-0	1.7	U	1.7	0.69	1
12969	2-Methylnaphthalene	91-57-6	1.7	U	1.7	0.69	1
12969	Naphthalene	91-20-3	1.7	U	1.7	0.69	1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.69	1
12969	Di-n-octylphthalate	117-84-0	18	U	18	6.2	1
12969	Phenanthrene	85-01-8	1.7	U	1.7	0.69	1
12969	Pyrene	129-00-0	1.7	U	1.7	0.69	1
GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	0.9	U	0.9	0.2	22.28
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
10592	Aroclor 5432	63496-31-1	34	U	34	10	1
10592	Aroclor 5442	12642-23-8	34	U	34	10	1
10592	Aroclor 5460	11126-42-4	34	U	34	10	1
10592	PCB-1016	12674-11-2	17	U	17	3.4	1
10592	PCB-1221	11104-28-2	17	U	17	5.2	1
10592	PCB-1232	11141-16-5	17	U	17	4.2	1
10592	PCB-1242	53469-21-9	17	U	17	4.2	1
10592	PCB-1248	12672-29-6	17	U	17	3.4	1
10592	PCB-1254	11097-69-1	17	U	17	4.5	1
10592	PCB-1260	11096-82-5	17	U	17	4.0	1
10592	PCB-1262	37324-23-5	17	U	17	3.4	1
10592	PCB-1268	11100-14-4	17	U	17	3.4	1

For all QC parameters which are outside project defined limits, but within the laboratory statistical limits, no corrective action is taken.
The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. Since the recovery is high and the target analyte(s)

*=This limit was used in the evaluation of the final result

Sample Description: SL-541-SA7-SB-2.0-3.0 Soil
SSFL Phase 3 Subarea 7

LL Sample # SW 7222779
LL Group # 1423512
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 10/02/2013 08:50 by VC

Submitted: 10/03/2013 10:05
Reported: 10/17/2013 15:05

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

54123 SDG#: PH121-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
was not detected in the sample, the data is reported.							
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.1	U	5.1	2.1	1
12952	EFH (C15-C20)	n.a.	5.1	U	5.1	2.1	1
12952	EFH (C21-C30)	n.a.	3.0	J	5.1	2.1	1
12952	EFH (C30-C40)	n.a.	13		10	4.1	1
12952	EFH (C8-C11)	n.a.	5.1	U	5.1	2.1	1
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	9,070		41.2	7.43	1
06944	Antimony	7440-36-0	4.12	U	4.12	0.763	1
06935	Arsenic	7440-38-2	4.06	J	4.12	0.722	1
06946	Barium	7440-39-3	62.5		1.03	0.0340	1
06947	Beryllium	7440-41-7	0.415	J	1.03	0.0691	1
07914	Boron	7440-42-8	6.34	J	10.3	0.866	1
06949	Cadmium	7440-43-9	0.219	J	1.03	0.0784	1
01650	Calcium	7440-70-2	7,590		20.6	3.44	1
06951	Chromium	7440-47-3	14.7		3.09	0.165	1
06952	Cobalt	7440-48-4	3.95		1.03	0.102	1
06953	Copper	7440-50-8	9.45		2.06	0.299	1
01654	Iron	7439-89-6	15,900		41.2	3.73	1
06955	Lead	7439-92-1	3.39		3.09	0.515	1
01656	Lithium	7439-93-2	27.7		4.1	0.35	1
01657	Magnesium	7439-95-4	4,470		10.3	1.72	1
06958	Manganese	7439-96-5	228		1.03	0.0856	1
06960	Molybdenum	7439-98-7	0.275	J	2.06	0.175	1
06961	Nickel	7440-02-0	7.33		2.06	0.134	1
10145	Phosphorus	7723-14-0	383		10.3	2.98	1
01662	Potassium	7440-09-7	2,580		103	8.60	1
01667	Sodium	7440-23-5	111		103	17.2	1
06969	Tin	7440-31-5	2.64	J	10.3	0.227	1
06970	Titanium	7440-32-6	833		1.03	0.175	1
06971	Vanadium	7440-62-2	27.6		1.03	0.134	1
06972	Zinc	7440-66-6	48.8		4.12	0.206	1
10146	Zirconium	7440-67-7	2.37	J	5.15	0.866	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.412	U	0.412	0.103	2
06142	Silver	7440-22-4	0.206	U	0.206	0.0268	2
06144	Strontium	7440-24-6	18.6		0.412	0.0701	2
06145	Thallium	7440-28-0	0.248		0.206	0.0309	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0163	U	0.0163	0.0098	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045D	n.a.	8.27		0.0100	0.0100	1
	The pH was measured in water at 21 C.						

*=This limit was used in the evaluation of the final result

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Lancaster Laboratories Environmental
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Analysis Report

Sample Description: SL-541-SA7-SB-2.0-3.0 Soil
SSFL Phase 3 Subarea 7

LL Sample # SW 7222779
LL Group # 1423512
Account # 13013

Project Name: SSFL Phase 3 Sampling

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CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

54123 SDG#: PH121-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Wet Chemistry	**EPA 160.3 modified**		%	%	%	
11624	14a Moisture Content by 160.3	n.a.	3.0	0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.					

*=This limit was used in the evaluation of the final result

Sample Description: SL-541-SA7-SB-2.0-3.0 Soil
SSFL Phase 3 Subarea 7

LL Sample # SW 7222779
LL Group # 1423512
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54123 SDG#: PH121-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	1.02	U	1.02	0.133	1
11031	12378-PeCDD	40321-76-4	0.115	JQ	5.12	0.107	1
11031	123478-HxCDD	39227-28-6	5.12	U	5.12	0.0497	1
11031	123678-HxCDD	57653-85-7	5.12	U	5.12	0.0527	1
11031	123789-HxCDD	19408-74-3	5.12	U	5.12	0.0543	1
11031	1234678-HpCDD	35822-46-9	0.397	JB	5.12	0.0685	1
11031	OCDD	3268-87-9	4.27	JB	10.2	0.0765	1
11031	2378-TCDF	51207-31-9	1.02	U	1.02	0.106	1
11031	12378-PeCDF	57117-41-6	0.0742	JBQ	5.12	0.0661	1
11031	23478-PeCDF	57117-31-4	5.12	U	5.12	0.0610	1
11031	123478-HxCDF	70648-26-9	5.12	U	5.12	0.0489	1
11031	123678-HxCDF	57117-44-9	5.12	U	5.12	0.0461	1
11031	123789-HxCDF	72918-21-9	0.0426	JQ	5.12	0.0326	1
11031	234678-HxCDF	60851-34-5	5.12	U	5.12	0.0455	1
11031	1234678-HpCDF	67562-39-4	0.0790	JBQ	5.12	0.0267	1
11031	1234789-HpCDF	55673-89-7	5.12	U	5.12	0.0385	1
11031	OCDF	39001-02-0	0.262	JBQ	10.2	0.0782	1
Toxic Equivalents	**EPA 1613B**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.00526				1

Labeled Compounds	**%Rec**	**Windows**
13C12-2378-TCDD	70	25 - 164
13C12-12378-PeCDD	70	25 - 181
13C12-123478-HxCDD	78	32 - 141
13C12-123678-HxCDD	86	28 - 130
13C12-123789-HxCDD	83	28 - 130
13C12-1234678-HpCDD	88	23 - 140
13C12-OCDD	94	17 - 157
13C12-2378-TCDF	64	24 - 169
13C12-12378-PeCDF	70	24 - 185
13C12-23478-PeCDF	67	21 - 178
13C12-123478-HxCDF	75	26 - 152
13C12-123678-HxCDF	80	26 - 123
13C12-234678-HxCDF	81	28 - 136
13C12-123789-HxCDF	139	29 - 147
13C12-1234678-HpCDF	93	28 - 143
13C12-1234789-HpCDF	81	26 - 138
13C12-OCDF	87	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration

*=This limit was used in the evaluation of the final result

Sample Description: SL-541-SA7-SB-2.0-3.0 Soil
SSFL Phase 3 Subarea 7

LL Sample # SW 7222779
LL Group # 1423512
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 10/02/2013 08:50 by VC

Submitted: 10/03/2013 10:05
Reported: 10/17/2013 15:05

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

54123 SDG#: PH121-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-541-SA7-SB-2.0-3.0 Soil
SSFL Phase 3 Subarea 7

LL Sample # SW 7222779
LL Group # 1423512
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 10/02/2013 08:50 by VC

Submitted: 10/03/2013 10:05
Reported: 10/17/2013 15:05

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

54123 SDG#: PH121-03

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13280SLE026	10/09/2013	06:14	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	13280SLE026	10/08/2013	09:25	Anna E Stager	1
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	13281A16A	10/08/2013	23:26	Laura M Krieger	22.28
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201327632621	10/03/2013	14:17	Mitchell R Washel	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201327632621	10/03/2013	14:17	Mitchell R Washel	n.a.
10592	19a PCBs and PCTs 8082A	SW-846 8082A	1	132780008A	10/08/2013	04:33	Monica M Souders	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	132780008A	10/07/2013	05:20	Roman Kuropatkin	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	132800038A	10/09/2013	01:48	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	132800038A	10/08/2013	07:15	Joseph S Feister	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13283005	10/14/2013	17:36	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13283005	10/10/2013	10:20	Robert Brown	1
01643	Aluminum	SW-846 6010C	1	132810637001	10/14/2013	12:48	Eric L Eby	1
06944	Antimony	SW-846 6010C	1	132810637001	10/14/2013	12:48	Eric L Eby	1
06935	Arsenic	SW-846 6010C	1	132810637001	10/14/2013	12:48	Eric L Eby	1
06946	Barium	SW-846 6010C	1	132810637001	10/14/2013	12:48	Eric L Eby	1
06947	Beryllium	SW-846 6010C	1	132810637001	10/14/2013	12:48	Eric L Eby	1
07914	Boron	SW-846 6010C	1	132810637001	10/14/2013	12:48	Eric L Eby	1
06949	Cadmium	SW-846 6010C	1	132810637001	10/14/2013	12:48	Eric L Eby	1
01650	Calcium	SW-846 6010C	1	132810637001	10/14/2013	12:48	Eric L Eby	1
06951	Chromium	SW-846 6010C	1	132810637001	10/14/2013	12:48	Eric L Eby	1
06952	Cobalt	SW-846 6010C	1	132810637001	10/14/2013	12:48	Eric L Eby	1
06953	Copper	SW-846 6010C	1	132810637001	10/14/2013	12:48	Eric L Eby	1
01654	Iron	SW-846 6010C	1	132810637001	10/14/2013	12:48	Eric L Eby	1
06955	Lead	SW-846 6010C	1	132810637001	10/14/2013	12:48	Eric L Eby	1
01656	Lithium	SW-846 6010C	1	132810637001	10/14/2013	12:48	Eric L Eby	1
01657	Magnesium	SW-846 6010C	1	132810637001	10/14/2013	12:48	Eric L Eby	1
06958	Manganese	SW-846 6010C	1	132810637001	10/14/2013	12:48	Eric L Eby	1
06960	Molybdenum	SW-846 6010C	1	132810637001	10/14/2013	12:48	Eric L Eby	1
06961	Nickel	SW-846 6010C	1	132810637001	10/14/2013	12:48	Eric L Eby	1
10145	Phosphorus	SW-846 6010C	1	132810637001	10/14/2013	12:48	Eric L Eby	1
01662	Potassium	SW-846 6010C	1	132810637001	10/14/2013	12:48	Eric L Eby	1
01667	Sodium	SW-846 6010C	1	132810637001	10/14/2013	12:48	Eric L Eby	1
06969	Tin	SW-846 6010C	1	132810637001	10/14/2013	12:48	Eric L Eby	1
06970	Titanium	SW-846 6010C	1	132810637001	10/14/2013	12:48	Eric L Eby	1
06971	Vanadium	SW-846 6010C	1	132810637001	10/14/2013	12:48	Eric L Eby	1
06972	Zinc	SW-846 6010C	1	132810637001	10/14/2013	12:48	Eric L Eby	1
10146	Zirconium	SW-846 6010C	1	132810637001	10/14/2013	12:48	Eric L Eby	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-541-SA7-SB-2.0-3.0 Soil
SSFL Phase 3 Subarea 7

LL Sample # SW 7222779
LL Group # 1423512
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 10/02/2013 08:50 by VC

Submitted: 10/03/2013 10:05
Reported: 10/17/2013 15:05

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

54123 SDG#: PH121-03

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06141	Selenium	SW-846 6020A	1	132810637001B	10/14/2013 07:34	Choon Y Tian	2
06142	Silver	SW-846 6020A	1	132810637001A	10/14/2013 07:34	Choon Y Tian	2
06144	Strontium	SW-846 6020A	1	132810637001A	10/14/2013 07:34	Choon Y Tian	2
06145	Thallium	SW-846 6020A	1	132810637001A	10/14/2013 07:34	Choon Y Tian	2
00159	3a Mercury 7471A	SW-846 7471B	1	132810638001	10/10/2013 06:55	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	132810637001	10/09/2013 10:20	James L Mertz	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	132810638001	10/09/2013 14:15	Denise K Conners	1
00394	15a pH by 9045D	SW-846 9045D modified	1	13276039404B	10/03/2013 23:25	Michelle L Lalli	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13283162401B	10/11/2013 00:56	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: TB2-100213 Water
SSFL Phase 3 Subarea 7

LL Sample # WW 7222780
LL Group # 1423512
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 10/02/2013 08:00

Submitted: 10/03/2013 10:05
Reported: 10/17/2013 15:05

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

121TB SDG#: PH121-03TB*

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC Volatiles	**TPH GRO SW-8015B**		**ug/l**		**ug/l**	**ug/l**	
08229	TPH-GRO S.CA water C5-C12	n.a.	50	U	50	20	1

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08229	11b TPH by EPA 8015B GRO	TPH GRO SW-8015B	1	13277A20A	10/07/2013 13:28	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	13277A20A	10/07/2013 13:28	Marie D Beamenderfer	1

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1423512
Reported: 10/17/13 at 03:05 PM

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 13280SLE026	Sample number(s): 7222778-7222779									
Acenaphthene	1.7	U	1.7	0.67	ug/kg	98		77-116		
Acenaphthylene	1.7	U	1.7	0.33	ug/kg	106		78-120		
Anthracene	1.7	U	1.7	0.33	ug/kg	102		80-116		
Benzo(a)anthracene	1.7	U	1.7	0.67	ug/kg	100		83-119		
Benzo(a)pyrene	1.7	U	1.7	0.67	ug/kg	101		80-122		
Benzo(b)fluoranthene	1.7	U	1.7	0.67	ug/kg	120		82-135		
Benzo(e)pyrene	17	U	17.	3.3	ug/kg	93		81-110		
Benzo(g,h,i)perylene	1.7	U	1.7	0.67	ug/kg	103		79-121		
Benzo(k)fluoranthene	1.7	U	1.7	0.67	ug/kg	106		79-123		
Butylbenzylphthalate	18	U	18.	6.0	ug/kg	103		77-123		
Di-n-butylphthalate	18	U	18.	6.0	ug/kg	108		78-125		
Chrysene	1.7	U	1.7	0.33	ug/kg	99		84-113		
Dibenz(a,h)anthracene	1.7	U	1.7	0.67	ug/kg	104		78-124		
Diethylphthalate	18	U	18.	6.0	ug/kg	106		77-130		
Dimethylphthalate	18	U	18.	6.0	ug/kg	103		85-122		
Bis(2-Ethylhexyl)phthalate	18	U	18.	6.0	ug/kg	97		79-121		
Fluoranthene	1.7	U	1.7	0.67	ug/kg	102		85-116		
Fluorene	1.7	U	1.7	0.67	ug/kg	101		81-126		
Indeno(1,2,3-cd)pyrene	1.7	U	1.7	0.67	ug/kg	103		77-124		
1-Methylnaphthalene	1.7	U	1.7	0.67	ug/kg	106		78-119		
2-Methylnaphthalene	1.7	U	1.7	0.67	ug/kg	100		78-121		
Naphthalene	1.7	U	1.7	0.67	ug/kg	103		79-113		
N-Nitrosodimethylamine	1.7	U	1.7	0.67	ug/kg	74		71-124		
Di-n-octylphthalate	18	U	18.	6.0	ug/kg	104		76-131		
Phenanthrene	1.7	U	1.7	0.67	ug/kg	99		72-110		
Pyrene	1.7	U	1.7	0.67	ug/kg	98		79-112		
Batch number: 13282WAI026	Sample number(s): 7222777									
Acenaphthene	0.050	U	0.050	0.010	ug/l	57*	98	77-118	53*	30
Acenaphthylene	0.050	U	0.050	0.010	ug/l	57*	104	80-123	59*	30
Anthracene	0.050	U	0.050	0.010	ug/l	60*	104	78-123	53*	30
Benzo(a)anthracene	0.050	U	0.050	0.010	ug/l	62*	103	73-127	50*	30
Benzo(a)pyrene	0.050	U	0.050	0.010	ug/l	65*	105	72-120	47*	30
Benzo(b)fluoranthene	0.050	U	0.050	0.010	ug/l	66*	107	79-136	47*	30
Benzo(e)pyrene	0.050	U	0.050	0.010	ug/l	60*	99	70-130	49*	30
Benzo(g,h,i)perylene	0.050	U	0.050	0.010	ug/l	75	105	64-130	33*	30
Benzo(k)fluoranthene	0.050	U	0.050	0.010	ug/l	71*	112	73-131	45*	30
Butylbenzylphthalate	1.0	U	1.0	0.050	ug/l	42	71	40-138	50*	30
Di-n-butylphthalate	1.0	U	1.0	0.050	ug/l	61*	101	64-141	50*	30
Chrysene	0.050	U	0.050	0.010	ug/l	63*	100	76-125	45*	30
Dibenz(a,h)anthracene	0.050	U	0.050	0.010	ug/l	85	104	58-131	20	30
Diethylphthalate	1.0	U	1.0	0.050	ug/l	63*	104	64-128	49*	30
Dimethylphthalate	1.0	U	1.0	0.050	ug/l	50	83	23-139	50*	30

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1423512
Reported: 10/17/13 at 03:05 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Bis(2-Ethylhexyl)phthalate	1.0	U	1.0	0.050	ug/l	130	72	70-143	58*	30
Fluoranthene	0.050	U	0.050	0.010	ug/l	61*	104	79-124	51*	30
Fluorene	0.050	U	0.050	0.010	ug/l	55*	97	74-115	55*	30
Indeno(1,2,3-cd)pyrene	0.050	U	0.050	0.010	ug/l	78	104	62-130	29	30
1-Methylnaphthalene	0.050	U	0.050	0.010	ug/l	60*	106	80-126	55*	30
2-Methylnaphthalene	0.050	U	0.050	0.010	ug/l	58*	103	81-124	56*	30
Naphthalene	0.050	U	0.050	0.030	ug/l	57*	101	75-120	56*	30
N-Nitrosodimethylamine	0.050	U	0.050	0.010	ug/l	68	85	36-120	21	30
Di-n-octylphthalate	1.0	U	1.0	0.050	ug/l	92	96	57-145	4	30
Phenanthrene	0.050	U	0.050	0.030	ug/l	58*	98	75-120	52*	30
Pyrene	0.050	U	0.050	0.010	ug/l	61*	99	71-130	48*	30
Batch number: 13277A20A	Sample number(s): 7222777,7222780									
TPH-GRO S.CA water C5-C12	50	U	50.	20	ug/l	108	110	75-135	2	30
Batch number: 13281A16A	Sample number(s): 7222779									
11a TPH by EPA 8015B GRO	1.0	U	1.0	0.2	mg/kg	78		67-119		
Batch number: 132780008A	Sample number(s): 7222778-7222779									
Aroclor 5432	33	U	33.	10	ug/kg					
Aroclor 5442	33	U	33.	10	ug/kg	81	90*	62-87	11	30
Aroclor 5460	33	U	33.	10	ug/kg					
PCB-1016	17	U	17.	3.3	ug/kg	96		82-116		
PCB-1221	17	U	17.	5.1	ug/kg					
PCB-1232	17	U	17.	4.1	ug/kg					
PCB-1242	17	U	17.	4.1	ug/kg					
PCB-1248	17	U	17.	3.3	ug/kg					
PCB-1254	17	U	17.	4.4	ug/kg					
PCB-1260	17	U	17.	3.9	ug/kg	116		84-125		
PCB-1262	17	U	17.	3.3	ug/kg					
PCB-1268	17	U	17.	3.3	ug/kg					
Batch number: 132800002A	Sample number(s): 7222777									
Aroclor 5432	0.40	U	0.40	0.080	ug/l					
Aroclor 5442	0.40	U	0.40	0.080	ug/l	63	73	35-84	14	30
Aroclor 5460	0.40	U	0.40	0.088	ug/l					
PCB-1016	0.40	U	0.40	0.080	ug/l	80	87	67-117	8	30
PCB-1221	0.40	U	0.40	0.080	ug/l					
PCB-1232	0.40	U	0.40	0.16	ug/l					
PCB-1242	0.40	U	0.40	0.080	ug/l					
PCB-1248	0.40	U	0.40	0.080	ug/l					
PCB-1254	0.40	U	0.40	0.080	ug/l					
PCB-1260	0.40	U	0.40	0.12	ug/l	99	108	67-128	9	30
PCB-1262	0.40	U	0.40	0.16	ug/l					
PCB-1268	0.40	U	0.40	0.13	ug/l					
Batch number: 132800018A	Sample number(s): 7222777									
EFH (C12-C14)	0.10	U	0.10	0.050	mg/l	86	88	70-130	3	30
EFH (C15-C20)	0.10	U	0.10	0.050	mg/l	99	98	70-130	2	30
EFH (C21-C30)	0.10	U	0.10	0.050	mg/l	92	93	70-130	1	30
EFH (C30 - C40)	0.50	U	0.50	0.10	mg/l	81	81	70-130	0	30
EFH (C8-C11)	0.10	U	0.10	0.050	mg/l	64*	65*	70-130	1	30
Batch number: 132800038A	Sample number(s): 7222778-7222779									
EFH (C12-C14)	5.0	U	5.0	2.0	mg/kg	86		70-123		
EFH (C15-C20)	5.0	U	5.0	2.0	mg/kg	92		75-128		

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1423512
Reported: 10/17/13 at 03:05 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
EFH (C21-C30)	5.0	U	5.0	2.0	mg/kg	86		64-134		
EFH (C30-C40)	10	U	10.	4.0	mg/kg	65		65-128		
EFH (C8-C11)	5.0	U	5.0	2.0	mg/kg	71		49-107		
Batch number: 132810635001	Sample number(s): 7222777									
Aluminum	0.400	U	0.400	0.0828	mg/l	101	99	90-112	2	20
Antimony	0.0400	U	0.0400	0.0053	mg/l	102	103	88-111	1	20
Arsenic	0.0400	U	0.0400	0.0068	mg/l	102	99	90-113	3	20
Barium	0.0100	U	0.0100	0.00033	mg/l	103	101	90-110	2	20
Beryllium	0.0100	U	0.0100	0.00067	mg/l	100	98	90-111	1	20
Boron	0.100	U	0.100	0.0084	mg/l	96	95	90-110	1	20
Cadmium	0.0100	U	0.0100	0.00076	mg/l	102	101	90-112	1	20
Calcium	0.400	U	0.400	0.0334	mg/l	101	99	90-112	2	20
Chromium	0.0300	U	0.0300	0.0016	mg/l	101	99	90-110	2	20
Cobalt	0.0100	U	0.0100	0.0013	mg/l	103	102	90-110	1	20
Copper	0.0200	U	0.0200	0.0027	mg/l	106	105	90-112	1	20
Iron	0.400	U	0.400	0.0430	mg/l	101	99	90-112	2	20
Lead	0.0300	U	0.0300	0.0047	mg/l	104	101	88-110	2	20
Lithium	0.0400	U	0.0400	0.0047	mg/l	102	101	90-110	1	20
Magnesium	0.200	U	0.200	0.0167	mg/l	100	98	89-110	2	20
Manganese	0.0100	U	0.0100	0.00083	mg/l	103	102	90-110	1	20
Molybdenum	0.0200	U	0.0200	0.0017	mg/l	106	106	90-110	0	20
Nickel	0.0200	U	0.0200	0.0015	mg/l	105	104	90-111	1	20
Phosphorus	0.0547	J	0.200	0.0418	mg/l	106	104	90-110	2	20
Potassium	0.203	J	1.00	0.0980	mg/l	100	99	90-110	2	20
Sodium	2.00	U	2.00	0.167	mg/l	100	99	87-114	1	20
Tin	0.0400	U	0.0400	0.0029	mg/l	99	99	90-110	0	20
Titanium	0.0200	U	0.0200	0.0017	mg/l	103	102	90-113	1	20
Vanadium	0.0100	U	0.0100	0.0020	mg/l	102	101	90-110	1	20
Zinc	0.0059	J	0.0400	0.0020	mg/l	101	100	90-110	1	20
Zirconium	0.100	U	0.100	0.0084	mg/l	103	102	90-110	1	20
Batch number: 132810637001	Sample number(s): 7222778-7222779									
Aluminum	9.86	J	40.0	7.21	mg/kg	104		80-120		
Antimony	4.00	U	4.00	0.740	mg/kg	101		80-120		
Arsenic	4.00	U	4.00	0.700	mg/kg	99		80-120		
Barium	1.00	U	1.00	0.0330	mg/kg	103		80-120		
Beryllium	1.00	U	1.00	0.0670	mg/kg	100		80-120		
Boron	10.0	U	10.0	0.840	mg/kg	91		80-120		
Cadmium	1.00	U	1.00	0.0760	mg/kg	100		80-120		
Calcium	12.9	J	20.0	3.34	mg/kg	103		80-120		
Chromium	3.00	U	3.00	0.160	mg/kg	101		80-120		
Cobalt	1.00	U	1.00	0.0990	mg/kg	103		80-120		
Copper	2.00	U	2.00	0.290	mg/kg	108		80-120		
Iron	3.84	J	40.0	3.62	mg/kg	104		80-120		
Lead	3.00	U	3.00	0.500	mg/kg	102		80-120		
Lithium	4.0	U	4.0	0.34	mg/kg	105		80-120		
Magnesium	2.49	J	10.0	1.67	mg/kg	103		80-120		
Manganese	1.00	U	1.00	0.0830	mg/kg	103		80-120		
Molybdenum	2.00	U	2.00	0.170	mg/kg	102		80-120		
Nickel	2.00	U	2.00	0.130	mg/kg	105		80-120		
Phosphorus	10.0	U	10.0	2.89	mg/kg	101		80-120		
Potassium	100 U		100.	8.34	mg/kg	102		80-120		
Sodium	100 U		100.	16.7	mg/kg	102		80-120		

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1423512
Reported: 10/17/13 at 03:05 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Tin	1.41	J	10.0	0.220	mg/kg	100		80-120		
Titanium	1.00	U	1.00	0.170	mg/kg	104		80-120		
Vanadium	1.00	U	1.00	0.130	mg/kg	102		80-120		
Zinc	0.656	J	4.00	0.200	mg/kg	101		80-120		
Zirconium	5.00	U	5.00	0.840	mg/kg	102		80-120		
Batch number: 132810637001A	Sample number(s): 7222778-7222779									
Silver	0.200	U	0.200	0.0260	mg/kg	107		80-120		
Strontium	0.400	U	0.400	0.0680	mg/kg	102		80-120		
Thallium	0.200	U	0.200	0.0300	mg/kg	102		80-120		
Batch number: 132810637001B	Sample number(s): 7222778-7222779									
Selenium	0.400	U	0.400	0.100	mg/kg	111		80-120		
Batch number: 132810638001	Sample number(s): 7222778-7222779									
3a Mercury 7471A	0.0167	U	0.0167	0.0100	mg/kg	106		85-120		
Batch number: 132810639001A	Sample number(s): 7222777									
Silver	0.0010	U	0.0010	0.00011	mg/l	102	104	90-115	2	20
Strontium	0.0020	U	0.0020	0.00034	mg/l	101	102	90-110	1	20
Thallium	0.0010	U	0.0010	0.00015	mg/l	104	106	90-115	2	20
Batch number: 132810639001B	Sample number(s): 7222777									
Selenium	0.0040	U	0.0040	0.00050	mg/l	104	104	90-120	0	20
Batch number: 132845713016	Sample number(s): 7222777									
3b Mercury 7470A	0.00020	U	0.00020	0.00006 0	mg/l	102	101	90-115	1	20
Batch number: 13276003101A	Sample number(s): 7222777									
28b pH (9040B and 9040C)						99		99-103		
Batch number: 13276039404B	Sample number(s): 7222778-7222779									
15a pH by 9045D						100		95-105		
Batch number: 13283162401B	Sample number(s): 7222778-7222779									
14a Moisture Content by 160.3						100		80-120		

Analysis Name	Blank Result		Blank MRL**	Blank EDL	Report Units	OPR %REC	OPRD %REC	OPR/OPRD Limits	RPD	RPD Max
Batch number: 13281001	Sample number(s): 7222777									
2378-TCDD	2.00	U	2.00	0.338	pg/l	94		60-150		
12378-PeCDD	0.427	J	10.0	0.280	pg/l	99		60-150		
123478-HxCDD	10.0	U	10.0	0.266	pg/l	99		60-150		
123678-HxCDD	0.572	J	10.0	0.281	pg/l	102		60-150		
123789-HxCDD	0.348	J	10.0	0.258	pg/l	97		60-150		
1234678-HpCDD	0.614	J	10.0	0.281	pg/l	97		60-150		
OCDD	1.53	J	20.0	0.593	pg/l	96		60-150		
2378-TCDF	2.00	U	2.00	0.230	pg/l	92		60-150		
12378-PeCDF	0.502	J	10.0	0.124	pg/l	96		60-150		
23478-PeCDF	0.364	J	10.0	0.116	pg/l	95		60-150		
123478-HxCDF	0.571	J	10.0	0.181	pg/l	95		60-150		
123678-HxCDF	0.559	J	10.0	0.178	pg/l	98		60-150		
123789-HxCDF	0.600	J	10.0	0.186	pg/l	99		60-150		

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1423512
Reported: 10/17/13 at 03:05 PM

Analysis Name	Blank Result		Blank MRL**	Blank EDL	Report Units	OPR %REC	OPRD %REC	OPR/OPRD Limits	RPD	RPD Max
234678-HxCDF	0.387	J	10.0	0.171	pg/l	98		60-150		
1234678-HpCDF	0.745	J	10.0	0.144	pg/l	99		60-150		
1234789-HpCDF	0.694	J	10.0	0.156	pg/l	98		60-150		
OCDF	2.35	J	20.0	0.424	pg/l	99		60-150		
Batch number: 13283005	Sample number(s): 7222778-7222779									
2378-TCDD	1.00	U	1.00	0.140	ng/kg	87		67-158		
12378-PeCDD	5.00	U	5.00	0.115	ng/kg	96		70-142		
123478-HxCDD	5.00	U	5.00	0.0593	ng/kg	101		70-164		
123678-HxCDD	5.00	U	5.00	0.0617	ng/kg	99		76-134		
123789-HxCDD	5.00	U	5.00	0.0661	ng/kg	93		64-162		
1234678-HpCDD	0.0753	J	5.00	0.0723	ng/kg	93		70-140		
OCDD	0.215	J	10.0	0.0473	ng/kg	97		78-144		
2378-TCDF	1.00	U	1.00	0.137	ng/kg	94		75-158		
12378-PeCDF	0.0800	J	5.00	0.0711	ng/kg	95		80-134		
23478-PeCDF	5.00	U	5.00	0.0701	ng/kg	95		68-160		
123478-HxCDF	5.00	U	5.00	0.0561	ng/kg	98		72-134		
123678-HxCDF	0.0948	J	5.00	0.0516	ng/kg	98		84-130		
123789-HxCDF	5.00	U	5.00	0.0600	ng/kg	84		78-130		
234678-HxCDF	5.00	U	5.00	0.0489	ng/kg	95		70-156		
1234678-HpCDF	0.0423	J	5.00	0.0263	ng/kg	93		82-122		
1234789-HpCDF	5.00	U	5.00	0.0422	ng/kg	96		78-138		
OCDF	0.137	J	10.0	0.0908	ng/kg	98		63-170		
Batch number: 13281001	Sample number(s): 7222777									
TEQ WHO 2005 - EDLx0.0	0.164				pg/l					
Batch number: 13283005	Sample number(s): 7222778-7222779									
TEQ WHO 2005 - EDLx0.0	U				ng/kg					

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 13280SLE026	Sample number(s): 7222778-7222779 UNSPK: P222763								
Acenaphthene	96	96	48-127	0	30				
Acenaphthylene	104	103	49-121	1	30				
Anthracene	99	97	52-126	3	30				
Benzo(a)anthracene	97	94	44-143	2	30				
Benzo(a)pyrene	97	97	44-140	0	30				
Benzo(b)fluoranthene	113	117	26-142	4	30				
Benzo(e)pyrene	89	89	70-130	0	30				
Benzo(g,h,i)perylene	101	101	33-141	0	30				
Benzo(k)fluoranthene	102	100	54-142	1	30				
Butylbenzylphthalate	107	105	49-151	2	30				
Di-n-butylphthalate	108	106	52-147	2	30				

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1423512
Reported: 10/17/13 at 03:05 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Chrysene	96	94	29-148	2	30				
Dibenz(a,h)anthracene	104	104	20-137	0	30				
Diethylphthalate	105	102	43-145	2	30				
Dimethylphthalate	101	101	58-129	1	30				
Bis(2-Ethylhexyl)phthalate	103	101	39-167	2	30				
Fluoranthene	100	98	40-148	2	30				
Fluorene	101	98	51-137	4	30				
Indeno(1,2,3-cd)pyrene	103	103	17-136	0	30				
1-Methylnaphthalene	103	100	50-131	2	30				
2-Methylnaphthalene	97	94	35-152	3	30				
Naphthalene	100	97	31-148	2	30				
N-Nitrosodimethylamine	61	60	48-113	2	30				
Di-n-octylphthalate	109	109	52-162	0	30				
Phenanthrene	96	93	29-142	2	30				
Pyrene	95	93	26-143	2	30				
Batch number: 13281A16A	Sample number(s): 7222779 UNSPK: P218895								
11a TPH by EPA 8015B GRO	87	94	69-123	9	30				
Batch number: 132780008A	Sample number(s): 7222778-7222779 UNSPK: P218895								
PCB-1016	88	90	41-135	4	50				
PCB-1260	99	111	40-134	12	50				
Batch number: 132800038A	Sample number(s): 7222778-7222779 UNSPK: P220653								
EFH (C12-C14)	83	74	49-123	12	20				
EFH (C15-C20)	98	93	49-123	6	20				
EFH (C21-C30)	83	71	49-123	15	20				
EFH (C30-C40)	59	56	49-123	5	20				
EFH (C8-C11)	71	67	49-123	6	20				
Batch number: 132810637001	Sample number(s): 7222778-7222779 UNSPK: 7222779 BKG: 7222779								
Aluminum	2134 (2)	1672 (2)	75-125	8	20	8,800	9,900	12	20
Antimony	58*	50*	75-125	17	20	4.00 U	3.88 U	0 (1)	20
Arsenic	103	95	75-125	7	20	3.94 J	4.24	7 (1)	20
Barium	105	97	75-125	7	20	60.6	66.6	9	20
Beryllium	101	96	75-125	6	20	0.403 J	0.413 J	2 (1)	20
Boron	91	88	75-125	6	20	6.15 J	6.11 J	1 (1)	20
Cadmium	96	93	75-125	5	20	0.212 J	0.254 J	18 (1)	20
Calcium	-7 (2)	-181 (2)	75-125	10	20	7,360	7,550	3	20
Chromium	119	104	75-125	9	20	14.2	17.3	19 (1)	20
Cobalt	97	93	75-125	6	20	3.83	4.41	14 (1)	20
Copper	111	104	75-125	6	20	9.16	10.1	10 (1)	20
Iron	2130 (2)	574 (2)	75-125	9	20	15,500	17,200	10	20
Lead	99	95	75-125	5	20	3.29	3.91	17 (1)	20
Lithium	106	100	75-125	6	20	26.9	30.2	11	20
Magnesium	560 (2)	327 (2)	75-125	9	20	4,340	4,900	12	20
Manganese	158 (2)	105 (2)	75-125	10	20	221	250	12	20
Molybdenum	99	96	75-125	5	20	0.267 J	0.290 J	8 (1)	20
Nickel	99	94	75-125	6	20	7.11	8.40	17 (1)	20

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1423512
Reported: 10/17/13 at 03:05 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Phosphorus	298*	38*	75-125	48*	20	371	362	3	20
Potassium	136*	105	75-125	9	20	2,500	2,760	10	20
Sodium	102	98	75-125	5	20	108	126	16 (1)	20
Tin	91	89	75-125	5	20	2.56 J	2.58 J	1 (1)	20
Titanium	525 (2)	340 (2)	75-125	15	20	808	896	10	20
Vanadium	116	104	75-125	8	20	26.8	29.8	10	20
Zinc	105	93	75-125	7	20	47.4	51.2	8	20
Zirconium	102	99	75-125	5	20	2.30 J	3.36 J	37* (1)	20
Batch number: 132810637001A	Sample number(s): 7222778-7222779 UNSPK: 7222779 BKG: 7222779								
Silver	111	110	75-125	3	20	0.200 U	0.194 U	0 (1)	20
Strontium	42*	263*	75-125	57*	20	18.0	18.2	1	20
Thallium	107	102	75-125	4	20	0.241	0.257	7 (1)	20
Batch number: 132810637001B	Sample number(s): 7222778-7222779 UNSPK: 7222779 BKG: 7222779								
Selenium	109	111	75-125	0	20	0.400 U	0.388 U	0 (1)	20
Batch number: 132810638001	Sample number(s): 7222778-7222779 UNSPK: 7222779 BKG: 7222779								
3a Mercury 7471A	111	106	65-135	4	20	0.0158 U	0.0160 U	0 (1)	20
Batch number: 13276003101A	Sample number(s): 7222777 BKG: P220584								
28b pH (9040B and 9040C)						7.5	7.5	1	3
Batch number: 13276039404B	Sample number(s): 7222778-7222779 BKG: 7222779								
15a pH by 9045D						8.27	8.27	0	3
Batch number: 13283162401B	Sample number(s): 7222778-7222779 BKG: P220658								
14a Moisture Content by 160.3						15.5	16.1	4	20

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 7a SVOC SIM EPA 8270D
Batch number: 13280SLE026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
7222778	98	92	103
7222779	92	97	100
Blank	88	94	102
LCS	91	99	104
MS	90	95	101
MSD	89	97	102
Limits:	54-129	59-125	61-125

Analysis Name: 7b SVOC SIM EPA 8270D

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1423512
Reported: 10/17/13 at 03:05 PM

Surrogate Quality Control

Batch number: 13282WAI026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
7222777	87	89	84
Blank	96	106	97
LCS	57	69	57
LCSD	97	111	100
Limits:	44-137	62-141	51-136

Analysis Name: 11b TPH by EPA 8015B GRO
Batch number: 13277A20A

	Trifluorotoluene-F
7222777	95
7222780	94
Blank	94
LCS	100
LCSD	99
Limits:	63-135

Analysis Name: 11a TPH by EPA 8015B GRO
Batch number: 13281A16A

	Trifluorotoluene-F
7222779	91
Blank	102
LCS	86
MS	85
MSD	93
Limits:	50-142

Analysis Name: 19a PCBs and PCTs 8082A
Batch number: 132780008A

	Tetrachloro-m-xylene	Decachlorobiphenyl
7222778	118	106
7222779	115	119
Blank	112	112
LCS	117	122*
LCSD	120	123*
MS	107	109
MSD	113	113
Limits:	45-120	45-120

Analysis Name: 21b PCBs and PCTs 8082A
Batch number: 132800002A

	Tetrachloro-m-xylene	Decachlorobiphenyl
7222777	99	83
Blank	92	96
LCS	94	100

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1423512
Reported: 10/17/13 at 03:05 PM

Surrogate Quality Control

LCSD	103	97
Limits:	45-120	45-120

Analysis Name: 10b TPH by EPA 8015B (DRO)
Batch number: 132800018A

	Chlorobenzene	Orthoterphenyl
7222777	94	91
Blank	93	90
LCS	90	87
LCSD	92	81
Limits:	45-126	69-119

Analysis Name: 10a TPH by EPA 8015B (DRO)
Batch number: 132800038A

	Chlorobenzene	Orthoterphenyl
7222778	88	83
7222779	87	83
Blank	91	85
LCS	87	74
MS	88	75
MSD	82	74
Limits:	37-125	66-123

Analysis Name: 17b Dioxin/Furan by EPA 1613B
Batch number: 13281001

	13C12-2378-TCDD	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF	13C12-234678-HxCDF	13C12-123789-HxCDF
7222777	70	76	77	77	79	88
Blank	73	83	80	80	81	82
OPR	78	77	82	82	84	82
Limits:	25-164	21-178	26-152	26-123	28-136	29-147

	13C12-1234678-HpCDF	13C12-1234789-HpCDF	13C12-OCDF	13C12-12378-PeCDD	13C12-123478-HxCDD	13C12-123678-HxCDD
7222777	86	92	101	76	82	80
Blank	83	87	92	83	84	82
OPR	81	80	74	77	83	82
Limits:	28-143	26-138	17-157	25-181	32-141	28-130

	13C12-123789-HxCDD	13C12-1234678-HpCDD	13C12-OCDD	13C12-2378-TCDF	13C12-12378-PeCDF
7222777	81	91	101	70	75
Blank	82	87	91	73	81
OPR	83	79	75	78	78
Limits:	28-130	23-140	17-157	24-169	24-185

Analysis Name: 23a Dioxin/Furan by EPA 1613B
Batch number: 13283005

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1423512
Reported: 10/17/13 at 03:05 PM

Surrogate Quality Control

	13C12-2378-TCDD	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF	13C12-234678-HxCDF	13C12-123789-HxCDF
7222778	73	71	74	79	81	97
7222779	70	67	75	80	81	139
Blank	65	60	66	74	72	80
OPR	74	65	66	75	76	141
Limits:	25-164	21-178	26-152	26-123	28-136	29-147

	13C12-1234678-HpCDF	13C12-1234789-HpCDF	13C12-OCDF	13C12-12378-PeCDD	13C12-123478-HxCDD	13C12-123678-HxCDD
7222778	89	88	97	75	77	83
7222779	93	81	87	70	78	86
Blank	92	75	77	66	73	79
OPR	97	81	78	70	75	80
Limits:	28-143	26-138	17-157	25-181	32-141	28-130

	13C12-123789-HxCDD	13C12-1234678-HpCDD	13C12-OCDD	13C12-2378-TCDF	13C12-12378-PeCDF
7222778	82	91	103	67	69
7222779	83	88	94	64	70
Blank	77	84	90	56	63
OPR	81	91	95	62	68
Limits:	28-130	23-140	17-157	24-169	24-185

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

SSFL Phase 3 Chain of Custody

13013 1423512 7222777-80

CDM Smith

DateShipped: 10/2/2013
CarrierName: FedEx
AirbillNo: 796825280883

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20131002-03
Cooler #: 2
Lab: Lancaster
Lab Phone: 717-556-7259
Lab Address: 2425 New Holland Pike, Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Other Analysis/Notes
SL-541-SA7-SB-0.0-0.5	10/2/13 08:45	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X											
SL-541-SA7-SB-0.0-0.5	10/2/13 08:45	SO	None	1 - 4 oz glass	10 day														X																		
SL-541-SA7-SB-2.0-3.0	10/2/13 08:50	SO	None	2 - 16 oz glass	10 day	X	X					X		X	X				X							X											
SL-541-SA7-SB-2.0-3.0	10/2/13 08:50	SO	None	2 - Encore	10 day																				X												
TB2-100213	10/2/13 08:00	WQ	HCl	3 - 40 mL Vial	10 day																				X												

Special Instructions:

Sampler: V. Gonzalez

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
Sey Mupello	10/02/2013	1600									
										10-3-13	1003

Subarea 7

SSFL Phase 3 Chain of Custody

13013 1423512 7222777 -80

CDM Smith

DateShipped: 10/2/2013
CarrierName: FedEx
AirbillNo: 796825280883

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20131002-02
Cooler #: 2
Lab: Lancaster
Lab Phone: 717-556-7259
Lab Address: 2425 New Holland Pike Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Other Analysis/Notes
EB2-100213	10/2/13 14:30	WQ	HNO3 pH<2	1 - 250 mL Poly	10 day	X		X																													
EB2-100213	10/2/13 14:30	WQ	None	2 - 250 mL Amber	10 day							X			X																						
EB2-100213	10/2/13 14:30	WQ	None	2 - 1 L Amber	10 day									X																							
EB2-100213	10/2/13 14:30	WQ	None	1 - 250 mL Poly	10 day														X																		
EB2-100213	10/2/13 14:30	WQ	HCl	3 - 40 mL Vial	10 day																				X												
EB2-100213	10/2/13 14:30	WQ	HCl	2 - 1 L Amber	10 day																					X											

Special Instructions:

Sampler: Pa Hart

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
Sergio Munoz	10/02/2013	1600									
										10-3-13	1005

Subarea 7

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Environmental Sample Administration Receipt Documentation Log

1423512

Client/Project: CBM Smith

Date of Receipt: 10-3-13

Time of Receipt: 1005

Source Code: 5.

Shipping Container Sealed: YES NO

Custody Seal Present * : YES NO

* Custody seal was intact unless otherwise noted in the discrepancy section

Package: Chilled Not Chilled

Temperature of Shipping Containers							
Cooler #	Thermometer ID	Temperature (°C)	Temp Bottle (TB) or Surface Temp (ST)	Wet Ice (WI) or Dry Ice (DI) or Ice Packs (IP)	Ice Present? Y/N	Loose (L) Bagged Ice (B) or NA	Comments
1	DT131	1.3	TB	WI	Y	B	
2	↓	1.2	↓	↓	↓	↓	
3	↓	1.6	↓	↓	↓	↓	
4							
5							
6							

Number of Trip Blanks received NOT listed on chain of custody: Ø

Paperwork Discrepancy/Unpacking Problems:

SL-900-SA5D-SB-0.0-0.5 has collection time on label @ 1320

SL-900-SA5D-SB-0.0-0.5 Sleeve has collection time on label @ 1330

Unpacker Signature/Emp#: [signature] 5200 **Date/Time:** 10-3-13 1105

Issued by Dept. 6042 Management

2174.06

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Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	**BMQL**	Below Minimum Quantitation Level
N.D.	none detected	**MPN**	Most Probable Number
TNTC	Too Numerous To Count	**CP Units**	cobalt-chloroplatinate units
IU	International Units	**NTU**	nephelometric turbidity units
umhos/cm	micromhos/cm	**ng**	nanogram(s)
C	degrees Celsius	**F**	degrees Fahrenheit
meq	milliequivalents	**lb.**	pound(s)
g	gram(s)	**kg**	kilogram(s)
µg	microgram(s)	**mg**	milligram(s)
mL	milliliter(s)	**L**	liter(s)
m3	cubic meter(s)	**µL**	microliter(s)
		pg/L	picogram/liter

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Data Qualifiers:

C – result confirmed by reanalysis.

J - estimated value – The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
C	Pesticide result confirmed by GC/MS
D	Compound quantitated on a diluted sample
E	Concentration exceeds the calibration range of the instrument
N	Presumptive evidence of a compound (TICs only)
P	Concentration difference between primary and confirmation columns >25%
U	Compound was not detected
X,Y,Z	Defined in case narrative

Inorganic Qualifiers

B	Value is <CRDL, but ≥IDL
E	Estimated due to interference
M	Duplicate injection precision not met
N	Spike sample not within control limits
S	Method of standard additions (MSA) used for calculation
U	Compound was not detected
W	Post digestion spike out of control limits
*****	Duplicate analysis not within control limits
+	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as “analyze immediately” are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

December 30, 2013

Project: SSFL Phase 3 Sampling

Submittal Date: 12/04/2013
Group Number: 1438204
SDG: PH138
PO Number: 1204-002-001-AL
State of Sample Origin: CA

Client Sample Description	Lancaster Labs (LL) #
SL-502-NBZ-SB-0.0-0.5 Soil	7300094
SL-502-NBZ-SB-4.0-5.0 Soil	7300095
SL-503-NBZ-SB-0.0-0.5 Soil	7300096
SL-503-NBZ-SB-2.0-3.0 Soil	7300097
SL-504-NBZ-SB-0.0-0.5 Soil	7300098
SL-504-NBZ-SB-0.0-0.5MS Soil	7300099
SL-504-NBZ-SB-0.0-0.5MSD Soil	7300100
SL-804-NBZ-SB-0.0-0.5 Soil	7300101
SL-530-NBZ-SB-0.0-0.5 Soil	7300102
SL-531-NBZ-SB-0.0-0.5 Soil	7300103
SL-532-NBZ-SB-0.0-0.5 Soil	7300104
SL-533-NBZ-SB-0.0-0.5 Soil	7300105
TB-120313 Water	7300106
SL-509-NBZ-SB-0.0-0.5 Soil	7300107
SL-509-NBZ-SB-2.5-3.5 Soil	7300108
SL-509-NBZ-SB-2.5-3.5MS Soil	7300109
SL-509-NBZ-SB-2.5-3.5MSD Soil	7300110
SL-509-NBZ-SB-2.5-3.5DUP Soil	7300111
SL-809-NBZ-SB-2.5-3.5 Soil	7300112
SL-510-NBZ-SB-0.0-0.5 Soil	7300113
SL-510-NBZ-SB-4.0-5.0 Soil	7300114
EB-120313 Water	7300115

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO Eurofins Lancaster Labs Env Attn: Nicole Maljovec

Respectfully Submitted,

Nicole L. Maljovec
Principal Specialist Group Leader

(717) 556-7259

eurofins
Lancaster Laboratories Environmental
2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Analysis Report

Sample Description: SL-502-NBZ-SB-0.0-0.5 Soil
SSFL NBZ

LL Sample # SW 7300094
LL Group # 1438204
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/03/2013 09:20 by KL

Submitted: 12/04/2013 09:35
Reported: 12/30/2013 09:52

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

50200 SDG#: PH138-01

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs	**SW-846 8081B**		**ug/kg**		**ug/kg**	**ug/kg**	
10590	Aldrin	309-00-2	0.89	U	0.89	0.18	1
10590	Alpha BHC	319-84-6	0.89	U	0.89	0.18	1
10590	Beta BHC	319-85-7	2.0	U	2.0	1.0	1
10590	Gamma BHC - Lindane	58-89-9	0.89	U	0.89	0.18	1
10590	Chlordane	57-74-9	18	U	18	4.3	1
10590	p,p-DDD	72-54-8	1.8	U	1.8	0.36	1
10590	p,p-DDE	72-55-9	1.8	U	1.8	0.36	1
10590	p,p-DDT	50-29-3	1.8	U	1.8	0.38	1
10590	Delta BHC	319-86-8	0.89	U	0.89	0.48	1
10590	Dieldrin	60-57-1	1.8	U	1.8	0.36	1
10590	Endosulfan I	959-98-8	0.89	U	0.89	0.24	1
10590	Endosulfan II	33213-65-9	1.8	U	1.8	0.36	1
10590	Endosulfan Sulfate	1031-07-8	1.8	U	1.8	0.36	1
10590	Endrin	72-20-8	1.8	U	1.8	0.36	1
10590	Endrin Aldehyde	7421-93-4	1.8	U	1.8	0.36	1
10590	Endrin Ketone	53494-70-5	1.9	U	1.9	0.65	1
10590	Heptachlor	76-44-8	0.89	U	0.89	0.18	1
10590	Heptachlor Epoxide	1024-57-3	0.89	U	0.89	0.18	1
10590	Methoxychlor	72-43-5	7.2	U	7.2	1.8	1
10590	Mirex	2385-85-5	1.8	U	1.8	0.38	1
10590	Toxaphene	8001-35-2	36	U	36	15	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.4	U	5.4	2.2	1
12952	EFH (C15-C20)	n.a.	5.4	U	5.4	2.2	1
12952	EFH (C21-C30)	n.a.	5.4	U	5.4	2.2	1
12952	EFH (C30-C40)	n.a.	11	U	11	4.3	1
12952	EFH (C8-C11)	n.a.	5.4	U	5.4	2.2	1
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	7.2		0.10	0.10	1

Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor

*=This limit was used in the evaluation of the final result

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Lancaster Laboratories Environmental

Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: SL-502-NBZ-SB-0.0-0.5 Soil
SSFL NBZ

LL Sample # SW 7300094
LL Group # 1438204
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/03/2013 09:20 by KL

Submitted: 12/04/2013 09:35
Reported: 12/30/2013 09:52

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

50200 SDG#: PH138-01

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10590	20a Pesticides by EPA 8081B	SW-846 8081B	1	133440020A	12/16/2013 12:28	Jamie L Brillhart	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	133440020A	12/11/2013 07:30	Joseph S Feister	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	133440024A	12/12/2013 00:48	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	133440024A	12/11/2013 08:30	Olivia Arosemena	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13345162401A	12/11/2013 22:37	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

eurofins
Lancaster Laboratories Environmental
2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Analysis Report

Sample Description: SL-502-NBZ-SB-4.0-5.0 Soil
SSFL NBZ

LL Sample # SW 7300095
LL Group # 1438204
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/03/2013 09:35 by KL

Submitted: 12/04/2013 09:35
Reported: 12/30/2013 09:52

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

50245 SDG#: PH138-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	1.1	U	1.1	0.2	25.25
Pesticides/PCBs	**SW-846 8081B**		**ug/kg**		**ug/kg**	**ug/kg**	
10590	Aldrin	309-00-2	0.92	U	0.92	0.19	1
10590	Alpha BHC	319-84-6	0.92	U	0.92	0.19	1
10590	Beta BHC	319-85-7	2.1	U	2.1	1.1	1
10590	Gamma BHC - Lindane	58-89-9	0.92	U	0.92	0.19	1
10590	Chlordane	57-74-9	19	U	19	4.4	1
10590	p,p-DDD	72-54-8	1.9	U	1.9	0.36	1
10590	p,p-DDE	72-55-9	1.9	U	1.9	0.36	1
10590	p,p-DDT	50-29-3	1.9	U	1.9	0.39	1
10590	Delta BHC	319-86-8	0.92	U	0.92	0.50	1
10590	Dieldrin	60-57-1	1.9	U	1.9	0.36	1
10590	Endosulfan I	959-98-8	0.92	U	0.92	0.24	1
10590	Endosulfan II	33213-65-9	1.9	U	1.9	0.36	1
10590	Endosulfan Sulfate	1031-07-8	1.9	U	1.9	0.36	1
10590	Endrin	72-20-8	1.9	U	1.9	0.36	1
10590	Endrin Aldehyde	7421-93-4	1.9	U	1.9	0.36	1
10590	Endrin Ketone	53494-70-5	2.0	U	2.0	0.66	1
10590	Heptachlor	76-44-8	0.92	U	0.92	0.19	1
10590	Heptachlor Epoxide	1024-57-3	0.92	U	0.92	0.19	1
10590	Methoxychlor	72-43-5	7.4	U	7.4	1.9	1
10590	Mirex	2385-85-5	1.9	U	1.9	0.39	1
10590	Toxaphene	8001-35-2	36	U	36	15	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.5	U	5.5	2.2	1
12952	EFH (C15-C20)	n.a.	5.5	U	5.5	2.2	1
12952	EFH (C21-C30)	n.a.	5.5	U	5.5	2.2	1
12952	EFH (C30-C40)	n.a.	11	U	11	4.4	1
12952	EFH (C8-C11)	n.a.	5.5	U	5.5	2.2	1
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	9.4		0.10	0.10	1

Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

*=This limit was used in the evaluation of the final result

eurofins
Lancaster Laboratories Environmental
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Analysis Report

Sample Description: SL-502-NBZ-SB-4.0-5.0 Soil
SSFL NBZ

LL Sample # SW 7300095
LL Group # 1438204
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/03/2013 09:35 by KL

Submitted: 12/04/2013 09:35
Reported: 12/30/2013 09:52

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

50245 SDG#: PH138-02

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	13339A16A	12/06/2013 02:12	Laura M Krieger	25.25
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201333833331	12/04/2013 14:25	Mitchell R Washel	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201333833331	12/04/2013 14:26	Mitchell R Washel	n.a.
10590	20a Pesticides by EPA 8081B	SW-846 8081B	1	133440020A	12/16/2013 12:44	Jamie L Brillhart	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	133440020A	12/11/2013 07:30	Joseph S Feister	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	133440024A	12/12/2013 01:10	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	133440024A	12/11/2013 08:30	Olivia Arosemena	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13345162401A	12/11/2013 22:37	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

eurofins
Lancaster Laboratories Environmental
2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Analysis Report

Sample Description: SL-503-NBZ-SB-0.0-0.5 Soil
SSFL NBZ

LL Sample # SW 7300096
LL Group # 1438204
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/03/2013 10:00 by KL

Submitted: 12/04/2013 09:35
Reported: 12/30/2013 09:52

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

50300 SDG#: PH138-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs	**SW-846 8081B**		**ug/kg**		**ug/kg**	**ug/kg**	
10590	Aldrin	309-00-2	0.85	U	0.85	0.17	1
10590	Alpha BHC	319-84-6	0.85	U	0.85	0.17	1
10590	Beta BHC	319-85-7	2.0	U	2.0	0.99	1
10590	Gamma BHC - Lindane	58-89-9	0.85	U	0.85	0.17	1
10590	Chlordane	57-74-9	17	U	17	4.1	1
10590	p,p-DDD	72-54-8	1.7	U	1.7	0.34	1
10590	p,p-DDE	72-55-9	1.7	U	1.7	0.34	1
10590	p,p-DDT	50-29-3	0.37	J	1.7	0.36	1
10590	Delta BHC	319-86-8	0.85	U	0.85	0.46	1
10590	Dieldrin	60-57-1	1.7	U	1.7	0.34	1
10590	Endosulfan I	959-98-8	0.85	U	0.85	0.23	1
10590	Endosulfan II	33213-65-9	1.7	U	1.7	0.34	1
10590	Endosulfan Sulfate	1031-07-8	1.7	U	1.7	0.34	1
10590	Endrin	72-20-8	1.7	U	1.7	0.34	1
10590	Endrin Aldehyde	7421-93-4	1.7	U	1.7	0.34	1
10590	Endrin Ketone	53494-70-5	1.9	U	1.9	0.62	1
10590	Heptachlor	76-44-8	0.85	U	0.85	0.17	1
10590	Heptachlor Epoxide	1024-57-3	0.85	U	0.85	0.17	1
10590	Methoxychlor	72-43-5	6.9	U	6.9	1.7	1
10590	Mirex	2385-85-5	1.7	U	1.7	0.36	1
10590	Toxaphene	8001-35-2	34	U	34	14	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.2	U	5.2	2.1	1
12952	EFH (C15-C20)	n.a.	5.2	U	5.2	2.1	1
12952	EFH (C21-C30)	n.a.	6.5		5.2	2.1	1
12952	EFH (C30-C40)	n.a.	24		10	4.2	1
12952	EFH (C8-C11)	n.a.	5.2	U	5.2	2.1	1
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	3.8		0.10	0.10	1

Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-503-NBZ-SB-0.0-0.5 Soil
SSFL NBZ

LL Sample # SW 7300096
LL Group # 1438204
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/03/2013 10:00 by KL

Submitted: 12/04/2013 09:35
Reported: 12/30/2013 09:52

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

50300 SDG#: PH138-03

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10590	20a Pesticides by EPA 8081B	SW-846 8081B	1	133440020A	12/16/2013 12:59	Jamie L Brillhart	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	133440020A	12/11/2013 07:30	Joseph S Feister	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	133440024A	12/12/2013 01:31	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	133440024A	12/11/2013 08:30	Olivia Arosemena	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13345162401A	12/11/2013 22:37	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

eurofins
Lancaster Laboratories Environmental
2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Analysis Report

Sample Description: SL-503-NBZ-SB-2.0-3.0 Soil
SSFL NBZ

LL Sample # SW 7300097
LL Group # 1438204
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/03/2013 10:20 by KL

Submitted: 12/04/2013 09:35
Reported: 12/30/2013 09:52

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

50323 SDG#: PH138-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	1.0	U	1.0	0.2	25
Pesticides/PCBs	**SW-846 8081B**		**ug/kg**		**ug/kg**	**ug/kg**	
10590	Aldrin	309-00-2	0.85	U	0.85	0.17	1
10590	Alpha BHC	319-84-6	0.85	U	0.85	0.17	1
10590	Beta BHC	319-85-7	1.9	U	1.9	0.98	1
10590	Gamma BHC - Lindane	58-89-9	0.85	U	0.85	0.17	1
10590	Chlordane	57-74-9	17	U	17	4.1	1
10590	p,p-DDD	72-54-8	1.7	U	1.7	0.34	1
10590	p,p-DDE	72-55-9	1.7	U	1.7	0.34	1
10590	p,p-DDT	50-29-3	1.7	U	1.7	0.36	1
10590	Delta BHC	319-86-8	0.85	U	0.85	0.46	1
10590	Dieldrin	60-57-1	1.7	U	1.7	0.34	1
10590	Endosulfan I	959-98-8	0.85	U	0.85	0.22	1
10590	Endosulfan II	33213-65-9	1.7	U	1.7	0.34	1
10590	Endosulfan Sulfate	1031-07-8	1.7	U	1.7	0.34	1
10590	Endrin	72-20-8	1.7	U	1.7	0.34	1
10590	Endrin Aldehyde	7421-93-4	1.7	U	1.7	0.34	1
10590	Endrin Ketone	53494-70-5	1.8	U	1.8	0.61	1
10590	Heptachlor	76-44-8	0.85	U	0.85	0.17	1
10590	Heptachlor Epoxide	1024-57-3	0.85	U	0.85	0.17	1
10590	Methoxychlor	72-43-5	6.8	U	6.8	1.7	1
10590	Mirex	2385-85-5	1.7	U	1.7	0.36	1
10590	Toxaphene	8001-35-2	34	U	34	14	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.1	U	5.1	2.0	1
12952	EFH (C15-C20)	n.a.	5.1	U	5.1	2.0	1
12952	EFH (C21-C30)	n.a.	5.1	U	5.1	2.0	1
12952	EFH (C30-C40)	n.a.	10	U	10	4.1	1
12952	EFH (C8-C11)	n.a.	5.1	U	5.1	2.0	1
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	2.0		0.10	0.10	1

Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-503-NBZ-SB-2.0-3.0 Soil
SSFL NBZ

LL Sample # SW 7300097
LL Group # 1438204
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/03/2013 10:20 by KL

Submitted: 12/04/2013 09:35
Reported: 12/30/2013 09:52

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

50323 SDG#: PH138-04

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	13339A16A	12/06/2013 02:49	Laura M Krieger	25
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201333833331	12/04/2013 14:27	Mitchell R Washel	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201333833331	12/04/2013 14:27	Mitchell R Washel	n.a.
10590	20a Pesticides by EPA 8081B	SW-846 8081B	1	133440020A	12/16/2013 13:14	Jamie L Brillhart	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	133440020A	12/11/2013 07:30	Joseph S Feister	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	133440024A	12/12/2013 01:53	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	133440024A	12/11/2013 08:30	Olivia Arosemena	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13345162401A	12/11/2013 22:37	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-504-NBZ-SB-0.0-0.5 Soil
SSFL NBZ

LL Sample # SW 7300098
LL Group # 1438204
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/03/2013 10:45 by KL

Submitted: 12/04/2013 09:35
Reported: 12/30/2013 09:52

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

50400 SDG#: PH138-05BKG

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs	**SW-846 8081B**		ug/kg		ug/kg	ug/kg	
10590	Aldrin	309-00-2	0.84	U	0.84	0.17	1
10590	Alpha BHC	319-84-6	0.84	U	0.84	0.17	1
10590	Beta BHC	319-85-7	1.9	U	1.9	0.97	1
10590	Gamma BHC - Lindane	58-89-9	0.84	U	0.84	0.17	1
10590	Chlordane	57-74-9	17	U	17	4.0	1
10590	p,p-DDD	72-54-8	1.7	U	1.7	0.33	1
10590	p,p-DDE	72-55-9	1.7	U	1.7	0.33	1
10590	p,p-DDT	50-29-3	1.7	U	1.7	0.35	1
10590	Delta BHC	319-86-8	0.84	U	0.84	0.46	1
10590	Dieldrin	60-57-1	1.7	U	1.7	0.33	1
10590	Endosulfan I	959-98-8	0.84	U	0.84	0.22	1
10590	Endosulfan II	33213-65-9	1.7	U	1.7	0.33	1
10590	Endosulfan Sulfate	1031-07-8	1.7	U	1.7	0.33	1
10590	Endrin	72-20-8	1.7	U	1.7	0.33	1
10590	Endrin Aldehyde	7421-93-4	1.7	U	1.7	0.33	1
10590	Endrin Ketone	53494-70-5	1.8	U	1.8	0.61	1
10590	Heptachlor	76-44-8	0.84	U	0.84	0.17	1
10590	Heptachlor Epoxide	1024-57-3	0.84	U	0.84	0.17	1
10590	Methoxychlor	72-43-5	6.8	U	6.8	1.7	1
10590	Mirex	2385-85-5	1.7	U	1.7	0.35	1
10590	Toxaphene	8001-35-2	33	U	33	14	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		mg/kg		mg/kg	mg/kg	
12952	EFH (C12-C14)	n.a.	5.1	U	5.1	2.0	1
12952	EFH (C15-C20)	n.a.	5.1	U	5.1	2.0	1
12952	EFH (C21-C30)	n.a.	5.1	U	5.1	2.0	1
12952	EFH (C30-C40)	n.a.	10	U	10	4.1	1
12952	EFH (C8-C11)	n.a.	5.1	U	5.1	2.0	1
Wet Chemistry	**EPA 160.3 modified**		%		%	%	
11624	14a Moisture Content by 160.3	n.a.	2.2		0.10	0.10	1

Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor

*=This limit was used in the evaluation of the final result

eurofins
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Analysis Report

Sample Description: SL-504-NBZ-SB-0.0-0.5 Soil
SSFL NBZ

LL Sample # SW 7300098
LL Group # 1438204
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/03/2013 10:45 by KL

Submitted: 12/04/2013 09:35
Reported: 12/30/2013 09:52

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

50400 SDG#: PH138-05BKG

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10590	20a Pesticides by EPA 8081B	SW-846 8081B	1	133440020A	12/16/2013 13:29	Jamie L Brillhart	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	133440020A	12/11/2013 07:30	Joseph S Feister	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	133440024A	12/12/2013 02:15	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	133440024A	12/11/2013 08:30	Olivia Arosemena	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13345162401A	12/11/2013 22:37	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

eurofins
Lancaster Laboratories Environmental
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Analysis Report

Sample Description: SL-504-NBZ-SB-0.0-0.5MS Soil
SSFL NBZ

LL Sample # SW 7300099
LL Group # 1438204
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/03/2013 10:45 by KL

Submitted: 12/04/2013 09:35
Reported: 12/30/2013 09:52

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

50400 SDG#: PH138-05MS

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs	**SW-846 8081B**		**ug/kg**		**ug/kg**	**ug/kg**	
10590	Aldrin	309-00-2	3.3		0.85	0.17	1
10590	Alpha BHC	319-84-6	3.5		0.85	0.17	1
10590	Beta BHC	319-85-7	3.4		1.9	0.98	1
10590	Gamma BHC - Lindane	58-89-9	3.6		0.85	0.17	1
10590	Chlordane	57-74-9	17	U	17	4.1	1
10590	p,p-DDD	72-54-8	7.3		1.7	0.34	1
10590	p,p-DDE	72-55-9	7.6		1.7	0.34	1
10590	p,p-DDT	50-29-3	10		1.7	0.36	1
10590	Delta BHC	319-86-8	3.6		0.85	0.46	1
10590	Dieldrin	60-57-1	7.3		1.7	0.34	1
10590	Endosulfan I	959-98-8	3.0		0.85	0.22	1
10590	Endosulfan II	33213-65-9	7.0		1.7	0.34	1
10590	Endosulfan Sulfate	1031-07-8	7.0		1.7	0.34	1
10590	Endrin	72-20-8	7.5		1.7	0.34	1
10590	Endrin Aldehyde	7421-93-4	6.1		1.7	0.34	1
10590	Endrin Ketone	53494-70-5	6.5		1.8	0.61	1
10590	Heptachlor	76-44-8	3.2		0.85	0.17	1
10590	Heptachlor Epoxide	1024-57-3	3.8		0.85	0.17	1
10590	Methoxychlor	72-43-5	36		6.9	1.7	1
10590	Mirex	2385-85-5	1.7	U	1.7	0.36	1
10590	Toxaphene	8001-35-2	34	U	34	14	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.3		5.1	2.0	1
12952	EFH (C15-C20)	n.a.	12		5.1	2.0	1
12952	EFH (C21-C30)	n.a.	44		5.1	2.0	1
12952	EFH (C30-C40)	n.a.	86		10	4.1	1
12952	EFH (C8-C11)	n.a.	4.4	J	5.1	2.0	1
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11625	14a Moisture Content by 160.3	n.a.	2.2		0.10	0.10	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10590	20a Pesticides by EPA 8081B	SW-846 8081B	1	133440020A	12/16/2013 13:44	Jamie L Brillhart	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	133440020A	12/11/2013 07:30	Joseph S Feister	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-504-NBZ-SB-0.0-0.5MS Soil
SSFL NBZ

LL Sample # SW 7300099
LL Group # 1438204
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/03/2013 10:45 by KL

Submitted: 12/04/2013 09:35
Reported: 12/30/2013 09:52

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

50400 SDG#: PH138-05MS

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	133440024A	12/12/2013 02:36	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	133440024A	12/11/2013 08:30	Olivia Arosemena	1
11625	14a Moisture Content by 160.3	EPA 160.3 modified	1	13345162401A	12/11/2013 22:37	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-504-NBZ-SB-0.0-0.5MSD Soil
SSFL NBZ

LL Sample # SW 7300100
LL Group # 1438204
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/03/2013 10:45 by KL

Submitted: 12/04/2013 09:35
Reported: 12/30/2013 09:52

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

50400 SDG#: PH138-05MSD

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs	**SW-846 8081B**		ug/kg		ug/kg	ug/kg	
10590	Aldrin	309-00-2	3.4		0.84	0.17	1
10590	Alpha BHC	319-84-6	3.6		0.84	0.17	1
10590	Beta BHC	319-85-7	3.5		1.9	0.98	1
10590	Gamma BHC - Lindane	58-89-9	3.7		0.84	0.17	1
10590	Chlordane	57-74-9	17	U	17	4.1	1
10590	p,p-DDD	72-54-8	7.7		1.7	0.34	1
10590	p,p-DDE	72-55-9	8.1		1.7	0.34	1
10590	p,p-DDT	50-29-3	11		1.7	0.36	1
10590	Delta BHC	319-86-8	3.9		0.84	0.46	1
10590	Dieldrin	60-57-1	7.4		1.7	0.34	1
10590	Endosulfan I	959-98-8	3.1		0.84	0.22	1
10590	Endosulfan II	33213-65-9	7.4		1.7	0.34	1
10590	Endosulfan Sulfate	1031-07-8	7.2		1.7	0.34	1
10590	Endrin	72-20-8	7.7		1.7	0.34	1
10590	Endrin Aldehyde	7421-93-4	6.4		1.7	0.34	1
10590	Endrin Ketone	53494-70-5	6.7		1.8	0.61	1
10590	Heptachlor	76-44-8	3.4		0.84	0.17	1
10590	Heptachlor Epoxide	1024-57-3	3.9		0.84	0.17	1
10590	Methoxychlor	72-43-5	38		6.8	1.7	1
10590	Mirex	2385-85-5	1.7	U	1.7	0.36	1
10590	Toxaphene	8001-35-2	34	U	34	14	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		mg/kg		mg/kg	mg/kg	
12952	EFH (C12-C14)	n.a.	5.4		5.1	2.0	1
12952	EFH (C15-C20)	n.a.	8.8		5.1	2.0	1
12952	EFH (C21-C30)	n.a.	14		5.1	2.0	1
12952	EFH (C30-C40)	n.a.	16		10	4.1	1
12952	EFH (C8-C11)	n.a.	4.6	J	5.1	2.0	1
Wet Chemistry	**EPA 160.3 modified**		%		%	%	
11625	14a Moisture Content by 160.3	n.a.	2.2		0.10	0.10	1
11626	14a Moisture Content by 160.3	n.a.	2.2		0.10	0.10	1

The duplicate moisture value is provided to assess the precision of the moisture test. For comparability purposes, the initial moisture determination is the value used to perform dry weight calculations.

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-504-NBZ-SB-0.0-0.5MSD Soil
SSFL NBZ

LL Sample # SW 7300100
LL Group # 1438204
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/03/2013 10:45 by KL

Submitted: 12/04/2013 09:35
Reported: 12/30/2013 09:52

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

50400 SDG#: PH138-05MSD

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10590	20a Pesticides by EPA 8081B	SW-846 8081B	1	133440020A	12/16/2013 14:00	Jamie L Brillhart	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	133440020A	12/11/2013 07:30	Joseph S Feister	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	133440024A	12/12/2013 02:58	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	133440024A	12/11/2013 08:30	Olivia Arosemena	1
11625	14a Moisture Content by 160.3	EPA 160.3 modified	1	13345162401A	12/11/2013 22:37	Scott W Freisher	1
11626	14a Moisture Content by 160.3	EPA 160.3 modified	1	13345162401A	12/11/2013 22:37	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

eurofins
Lancaster Laboratories Environmental
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Analysis Report

Sample Description: SL-804-NBZ-SB-0.0-0.5 Soil
SSFL NBZ

LL Sample # SW 7300101
LL Group # 1438204
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/03/2013 10:55 by KL

Submitted: 12/04/2013 09:35
Reported: 12/30/2013 09:52

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

80400 SDG#: PH138-06

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs	**SW-846 8081B**		**ug/kg**		**ug/kg**	**ug/kg**	
10590	Aldrin	309-00-2	0.83	U	0.83	0.17	1
10590	Alpha BHC	319-84-6	0.83	U	0.83	0.17	1
10590	Beta BHC	319-85-7	1.9	U	1.9	0.97	1
10590	Gamma BHC - Lindane	58-89-9	0.83	U	0.83	0.17	1
10590	Chlordane	57-74-9	17	U	17	4.0	1
10590	p,p-DDD	72-54-8	1.7	U	1.7	0.33	1
10590	p,p-DDE	72-55-9	1.7	U	1.7	0.33	1
10590	p,p-DDT	50-29-3	1.7	U	1.7	0.94	1
10590	Delta BHC	319-86-8	0.83	U	0.83	0.45	1
10590	Dieldrin	60-57-1	1.7	U	1.7	0.33	1
10590	Endosulfan I	959-98-8	0.83	U	0.83	0.22	1
10590	Endosulfan II	33213-65-9	1.7	U	1.7	0.33	1
10590	Endosulfan Sulfate	1031-07-8	1.7	U	1.7	0.33	1
10590	Endrin	72-20-8	1.7	U	1.7	0.33	1
10590	Endrin Aldehyde	7421-93-4	1.7	U	1.7	0.33	1
10590	Endrin Ketone	53494-70-5	1.8	U	1.8	0.60	1
10590	Heptachlor	76-44-8	0.83	U	0.83	0.17	1
10590	Heptachlor Epoxide	1024-57-3	0.83	U	0.83	0.17	1
10590	Methoxychlor	72-43-5	6.7	U	6.7	1.7	1
10590	Mirex	2385-85-5	1.7	U	1.7	0.35	1
10590	Toxaphene	8001-35-2	33	U	33	14	1
	Reporting limits were raised due to interference from the sample matrix.						
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.1	U	5.1	2.0	1
12952	EFH (C15-C20)	n.a.	5.1	U	5.1	2.0	1
12952	EFH (C21-C30)	n.a.	5.1	U	5.1	2.0	1
12952	EFH (C30-C40)	n.a.	10	U	10	4.1	1
12952	EFH (C8-C11)	n.a.	5.1	U	5.1	2.0	1
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	1.9		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-804-NBZ-SB-0.0-0.5 Soil
SSFL NBZ

LL Sample # SW 7300101
LL Group # 1438204
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/03/2013 10:55 by KL

Submitted: 12/04/2013 09:35
Reported: 12/30/2013 09:52

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

80400 SDG#: PH138-06

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10590	20a Pesticides by EPA 8081B	SW-846 8081B	1	133440020A	12/16/2013 14:15	Jamie L Brillhart	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	133440020A	12/11/2013 07:30	Joseph S Feister	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	133440024A	12/12/2013 03:20	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	133440024A	12/11/2013 08:30	Olivia Arosemena	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13345162401A	12/11/2013 22:37	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

eurofins
Lancaster Laboratories Environmental
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Analysis Report

Sample Description: SL-530-NBZ-SB-0.0-0.5 Soil
SSFL NBZ

LL Sample # SW 7300102
LL Group # 1438204
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/03/2013 09:40 by KL

Submitted: 12/04/2013 09:35
Reported: 12/30/2013 09:52

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

53000 SDG#: PH138-07

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs	**SW-846 8081B**		**ug/kg**		**ug/kg**	**ug/kg**	
10590	Aldrin	309-00-2	0.84	U	0.84	0.17	1
10590	Alpha BHC	319-84-6	0.84	U	0.84	0.17	1
10590	Beta BHC	319-85-7	1.9	U	1.9	0.97	1
10590	Gamma BHC - Lindane	58-89-9	0.84	U	0.84	0.17	1
10590	Chlordane	57-74-9	17	U	17	4.1	1
10590	p,p-DDD	72-54-8	1.7	U	1.7	0.33	1
10590	p,p-DDE	72-55-9	1.7	U	1.7	0.33	1
10590	p,p-DDT	50-29-3	1.7	U	1.7	0.35	1
10590	Delta BHC	319-86-8	0.84	U	0.84	0.46	1
10590	Dieldrin	60-57-1	1.7	U	1.7	0.33	1
10590	Endosulfan I	959-98-8	0.84	U	0.84	0.22	1
10590	Endosulfan II	33213-65-9	1.7	U	1.7	0.33	1
10590	Endosulfan Sulfate	1031-07-8	1.7	U	1.7	0.33	1
10590	Endrin	72-20-8	1.7	U	1.7	0.33	1
10590	Endrin Aldehyde	7421-93-4	1.7	U	1.7	0.33	1
10590	Endrin Ketone	53494-70-5	1.8	U	1.8	0.61	1
10590	Heptachlor	76-44-8	0.84	U	0.84	0.17	1
10590	Heptachlor Epoxide	1024-57-3	0.84	U	0.84	0.17	1
10590	Methoxychlor	72-43-5	6.8	U	6.8	1.7	1
10590	Mirex	2385-85-5	1.7	U	1.7	0.35	1
10590	Toxaphene	8001-35-2	33	U	33	14	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.1	U	5.1	2.1	1
12952	EFH (C15-C20)	n.a.	5.1	U	5.1	2.1	1
12952	EFH (C21-C30)	n.a.	5.1	U	5.1	2.1	1
12952	EFH (C30-C40)	n.a.	4.2	J	10	4.1	1
12952	EFH (C8-C11)	n.a.	5.1	U	5.1	2.1	1
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	2.6		0.10	0.10	1

Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-530-NBZ-SB-0.0-0.5 Soil
SSFL NBZ

LL Sample # SW 7300102
LL Group # 1438204
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/03/2013 09:40 by KL

Submitted: 12/04/2013 09:35
Reported: 12/30/2013 09:52

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

53000 SDG#: PH138-07

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10590	20a Pesticides by EPA 8081B	SW-846 8081B	1	133440020A	12/16/2013 14:30	Jamie L Brillhart	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	133440020A	12/11/2013 07:30	Joseph S Feister	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	133440024A	12/12/2013 03:41	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	133440024A	12/11/2013 08:30	Olivia Arosemena	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13345162401A	12/11/2013 22:37	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-531-NBZ-SB-0.0-0.5 Soil
SSFL NBZ

LL Sample # SW 7300103
LL Group # 1438204
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/03/2013 13:50 by KL

Submitted: 12/04/2013 09:35
Reported: 12/30/2013 09:52

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

53100 SDG#: PH138-08

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs	**SW-846 8081B**		ug/kg		ug/kg	ug/kg	
10590	Aldrin	309-00-2	0.84	U	0.84	0.17	1
10590	Alpha BHC	319-84-6	0.84	U	0.84	0.17	1
10590	Beta BHC	319-85-7	1.9	U	1.9	0.97	1
10590	Gamma BHC - Lindane	58-89-9	0.84	U	0.84	0.17	1
10590	Chlordane	57-74-9	17	U	17	4.1	1
10590	p,p-DDD	72-54-8	1.7	U	1.7	0.33	1
10590	p,p-DDE	72-55-9	1.7	U	1.7	0.33	1
10590	p,p-DDT	50-29-3	1.7	U	1.7	0.36	1
10590	Delta BHC	319-86-8	0.84	U	0.84	0.46	1
10590	Dieldrin	60-57-1	1.7	U	1.7	0.33	1
10590	Endosulfan I	959-98-8	0.84	U	0.84	0.22	1
10590	Endosulfan II	33213-65-9	1.7	U	1.7	0.33	1
10590	Endosulfan Sulfate	1031-07-8	1.7	U	1.7	0.33	1
10590	Endrin	72-20-8	1.7	U	1.7	0.33	1
10590	Endrin Aldehyde	7421-93-4	1.7	U	1.7	0.33	1
10590	Endrin Ketone	53494-70-5	1.8	U	1.8	0.61	1
10590	Heptachlor	76-44-8	0.84	U	0.84	0.17	1
10590	Heptachlor Epoxide	1024-57-3	0.84	U	0.84	0.17	1
10590	Methoxychlor	72-43-5	6.8	U	6.8	1.7	1
10590	Mirex	2385-85-5	1.7	U	1.7	0.36	1
10590	Toxaphene	8001-35-2	33	U	33	14	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		mg/kg		mg/kg	mg/kg	
12952	EFH (C12-C14)	n.a.	5.1	U	5.1	2.0	1
12952	EFH (C15-C20)	n.a.	5.1	U	5.1	2.0	1
12952	EFH (C21-C30)	n.a.	5.1	U	5.1	2.0	1
12952	EFH (C30-C40)	n.a.	7.9	J	10	4.1	1
12952	EFH (C8-C11)	n.a.	5.1	U	5.1	2.0	1
Wet Chemistry	**EPA 160.3 modified**		%		%	%	
11624	14a Moisture Content by 160.3	n.a.	2.1		0.10	0.10	1

Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor

*=This limit was used in the evaluation of the final result

eurofins
Lancaster Laboratories Environmental
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Analysis Report

Sample Description: SL-531-NBZ-SB-0.0-0.5 Soil
SSFL NBZ

LL Sample # SW 7300103
LL Group # 1438204
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/03/2013 13:50 by KL

Submitted: 12/04/2013 09:35
Reported: 12/30/2013 09:52

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

53100 SDG#: PH138-08

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10590	20a Pesticides by EPA 8081B	SW-846 8081B	1	133440020A	12/16/2013 14:45	Jamie L Brillhart	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	133440020A	12/11/2013 07:30	Joseph S Feister	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	133440024A	12/12/2013 04:03	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	133440024A	12/11/2013 08:30	Olivia Arosemena	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13345162401A	12/11/2013 22:37	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

eurofins
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Analysis Report

Sample Description: SL-532-NBZ-SB-0.0-0.5 Soil
SSFL NBZ

LL Sample # SW 7300104
LL Group # 1438204
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/03/2013 10:20 by KL

Submitted: 12/04/2013 09:35
Reported: 12/30/2013 09:52

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

53200 SDG#: PH138-09

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs	**SW-846 8081B**		**ug/kg**		**ug/kg**	**ug/kg**	
10590	Aldrin	309-00-2	0.85	U	0.85	0.17	1
10590	Alpha BHC	319-84-6	0.85	U	0.85	0.17	1
10590	Beta BHC	319-85-7	2.0	U	2.0	0.99	1
10590	Gamma BHC - Lindane	58-89-9	0.85	U	0.85	0.17	1
10590	Chlordane	57-74-9	17	U	17	4.1	1
10590	p,p-DDD	72-54-8	1.7	U	1.7	0.34	1
10590	p,p-DDE	72-55-9	1.7	U	1.7	0.34	1
10590	p,p-DDT	50-29-3	1.0	J	1.7	0.36	1
10590	Delta BHC	319-86-8	0.85	U	0.85	0.46	1
10590	Dieldrin	60-57-1	1.7	U	1.7	0.34	1
10590	Endosulfan I	959-98-8	0.85	U	0.85	0.23	1
10590	Endosulfan II	33213-65-9	1.7	U	1.7	0.34	1
10590	Endosulfan Sulfate	1031-07-8	1.7	U	1.7	0.34	1
10590	Endrin	72-20-8	1.7	U	1.7	0.34	1
10590	Endrin Aldehyde	7421-93-4	1.7	U	1.7	0.34	1
10590	Endrin Ketone	53494-70-5	1.8	U	1.8	0.62	1
10590	Heptachlor	76-44-8	0.85	U	0.85	0.17	1
10590	Heptachlor Epoxide	1024-57-3	0.85	U	0.85	0.17	1
10590	Methoxychlor	72-43-5	6.9	U	6.9	1.7	1
10590	Mirex	2385-85-5	1.7	U	1.7	0.36	1
10590	Toxaphene	8001-35-2	34	U	34	14	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.1	U	5.1	2.1	1
12952	EFH (C15-C20)	n.a.	5.1	U	5.1	2.1	1
12952	EFH (C21-C30)	n.a.	5.1	U	5.1	2.1	1
12952	EFH (C30-C40)	n.a.	10	U	10	4.1	1
12952	EFH (C8-C11)	n.a.	5.1	U	5.1	2.1	1
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	2.7		0.10	0.10	1

Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor

*=This limit was used in the evaluation of the final result

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Lancaster Laboratories Environmental
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Analysis Report

Sample Description: SL-532-NBZ-SB-0.0-0.5 Soil
SSFL NBZ

LL Sample # SW 7300104
LL Group # 1438204
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/03/2013 10:20 by KL

Submitted: 12/04/2013 09:35
Reported: 12/30/2013 09:52

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

53200 SDG#: PH138-09

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10590	20a Pesticides by EPA 8081B	SW-846 8081B	1	133440020A	12/16/2013 16:02	Jamie L Brillhart	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	133440020A	12/11/2013 07:30	Joseph S Feister	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	133440024A	12/12/2013 04:25	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	133440024A	12/11/2013 08:30	Olivia Arosemena	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13345162401A	12/11/2013 22:37	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-533-NBZ-SB-0.0-0.5 Soil
SSFL NBZ

LL Sample # SW 7300105
LL Group # 1438204
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/03/2013 13:05 by KL

Submitted: 12/04/2013 09:35
Reported: 12/30/2013 09:52

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

53300 SDG#: PH138-10

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Herbicides	**SW-846 8151A**		**ug/kg**		**ug/kg**	**ug/kg**	
10401	2,4-D	94-75-7	37	U	37	12	1
10401	Dalapon	75-99-0	91	U	91	45	1
10401	2,4-DB	94-82-6	27	U	27	27	1
10401	Dicamba	1918-00-9	12	U	12	4.1	1
10401	Dinoseb	88-85-7	24	U	24	9.1	1
	The QC window for dinoseb is advisory due to the erratic performance of the analyte using this method.						
10401	2,4-DP (Dichlorprop)	120-36-5	17	U	17	9.1	1
10401	MCPA	94-74-6	2,500	U	2,500	770	1
10401	MCPP (Mecoprop)	93-65-2	2,500	U	2,500	760	1
10401	2,4,5-T	93-76-5	1.7	U	1.7	0.83	1
10401	2,4,5-TP	93-72-1	1.7	U	1.7	0.76	1
	Reporting limits were raised due to interference from the sample matrix.						
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.1	U	5.1	2.0	1
12952	EFH (C15-C20)	n.a.	5.1	U	5.1	2.0	1
12952	EFH (C21-C30)	n.a.	2.8	J	5.1	2.0	1
12952	EFH (C30-C40)	n.a.	6.4	J	10	4.1	1
12952	EFH (C8-C11)	n.a.	5.1	U	5.1	2.0	1
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	2.1		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10401	21a Herbicides by EPA 8151A	SW-846 8151A	1	133450034A	12/15/2013 22:10	Melissa McDermott	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	133450034A	12/12/2013 06:45	Kerrie A Freeburn	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	133440024A	12/12/2013 04:46	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	133440024A	12/11/2013 08:30	Olivia Arosemena	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-533-NBZ-SB-0.0-0.5 Soil
SSFL NBZ

LL Sample # SW 7300105
LL Group # 1438204
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/03/2013 13:05 by KL

Submitted: 12/04/2013 09:35
Reported: 12/30/2013 09:52

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

53300 SDG#: PH138-10

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13345162401A	12/11/2013 22:37	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

eurofins
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Analysis Report

Sample Description: TB-120313 Water
SSFL NBZ

LL Sample # WW 7300106
LL Group # 1438204
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/03/2013 08:00

Submitted: 12/04/2013 09:35
Reported: 12/30/2013 09:52

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

TB138 SDG#: PH138-11TB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC Volatiles	**TPH GRO SW-8015B**		ug/l		ug/l	ug/l	
08229	TPH-GRO S.CA water C5-C12	n.a.	50	U	50	20	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08229	11b TPH by EPA 8015B GRO	TPH GRO SW-8015B	1	13339A94A	12/06/2013 12:39	Catherine J Schwarz	1
01146	GC VOA Water Prep	SW-846 5030B	1	13339A94A	12/06/2013 12:39	Catherine J Schwarz	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-509-NBZ-SB-0.0-0.5 Soil
SSFL NBZ

LL Sample # SW 7300107
LL Group # 1438204
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/03/2013 13:15 by KL

Submitted: 12/04/2013 09:35
Reported: 12/30/2013 09:52

CDM Federal Programs Corp.
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Suite 400
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50900 SDG#: PH138-12

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		ug/kg		ug/kg	ug/kg	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.68	1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.34	1
12969	Anthracene	120-12-7	1.7	U	1.7	0.34	1
12969	Benzo(a)anthracene	56-55-3	1.7	U	1.7	0.68	1
12969	Benzo(a)pyrene	50-32-8	1.7	U	1.7	0.68	1
12969	Benzo(b)fluoranthene	205-99-2	1.7	U	1.7	0.68	1
12969	Benzo(e)pyrene	192-97-2	17	U	17	3.4	1
12969	Benzo(g,h,i)perylene	191-24-2	1.7	U	1.7	0.68	1
12969	Benzo(k)fluoranthene	207-08-9	1.7	U	1.7	0.68	1
12969	Butylbenzylphthalate	85-68-7	18	U	18	6.1	1
12969	Di-n-butylphthalate	84-74-2	18	U	18	6.1	1
12969	Chrysene	218-01-9	1.7	U	1.7	0.34	1
12969	Dibenz(a,h)anthracene	53-70-3	1.7	U	1.7	0.68	1
12969	Diethylphthalate	84-66-2	18	U	18	6.1	1
12969	Dimethylphthalate	131-11-3	18	U	18	6.1	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	18	U	18	6.1	1
12969	Fluoranthene	206-44-0	1.7	U	1.7	0.68	1
12969	Fluorene	86-73-7	1.7	U	1.7	0.68	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.7	U	1.7	0.68	1
12969	1-Methylnaphthalene	90-12-0	1.7	U	1.7	0.68	1
12969	2-Methylnaphthalene	91-57-6	1.7	U	1.7	0.68	1
12969	Naphthalene	91-20-3	1.7	U	1.7	0.68	1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.68	1
12969	Di-n-octylphthalate	117-84-0	18	U	18	6.1	1
12969	Phenanthrene	85-01-8	1.7	U	1.7	0.68	1
12969	Pyrene	129-00-0	1.7	U	1.7	0.68	1
Pesticides/PCBs	**SW-846 8081B**		ug/kg		ug/kg	ug/kg	
10590	Aldrin	309-00-2	0.85	U	0.85	0.17	1
10590	Alpha BHC	319-84-6	0.85	U	0.85	0.17	1
10590	Beta BHC	319-85-7	1.9	U	1.9	0.98	1
10590	Gamma BHC - Lindane	58-89-9	0.85	U	0.85	0.17	1
10590	Chlordane	57-74-9	17	U	17	4.1	1
10590	p,p-DDD	72-54-8	1.7	U	1.7	0.34	1
10590	p,p-DDE	72-55-9	1.7	U	1.7	0.34	1
10590	p,p-DDT	50-29-3	1.7	U	1.7	0.36	1
10590	Delta BHC	319-86-8	0.85	U	0.85	0.46	1
10590	Dieldrin	60-57-1	1.7	U	1.7	0.34	1
10590	Endosulfan I	959-98-8	0.85	U	0.85	0.23	1
10590	Endosulfan II	33213-65-9	1.7	U	1.7	0.34	1
10590	Endosulfan Sulfate	1031-07-8	1.7	U	1.7	0.34	1
10590	Endrin	72-20-8	1.7	U	1.7	0.34	1
10590	Endrin Aldehyde	7421-93-4	1.7	U	1.7	0.34	1
10590	Endrin Ketone	53494-70-5	1.8	U	1.8	0.61	1
10590	Heptachlor	76-44-8	0.85	U	0.85	0.17	1
10590	Heptachlor Epoxide	1024-57-3	0.85	U	0.85	0.17	1
10590	Methoxychlor	72-43-5	6.9	U	6.9	1.7	1
10590	Mirex	2385-85-5	1.7	U	1.7	0.36	1
10590	Toxaphene	8001-35-2	34	U	34	14	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-509-NBZ-SB-0.0-0.5 Soil
SSFL NBZ

LL Sample # SW 7300107
LL Group # 1438204
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/03/2013 13:15 by KL

Submitted: 12/04/2013 09:35
Reported: 12/30/2013 09:52

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

50900 SDG#: PH138-12

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	34	U	34	10	1
13099	Aroclor 5442	12642-23-8	34	U	34	10	1
13099	Aroclor 5460	11126-42-4	34	U	34	10	1
13099	PCB-1016	12674-11-2	17	U	17	3.4	1
13099	PCB-1221	11104-28-2	17	U	17	5.2	1
13099	PCB-1232	11141-16-5	17	U	17	4.2	1
13099	PCB-1242	53469-21-9	17	U	17	4.2	1
13099	PCB-1248	12672-29-6	17	U	17	3.4	1
13099	PCB-1254	11097-69-1	17	U	17	4.5	1
13099	PCB-1260	11096-82-5	17	U	17	4.0	1
13099	PCB-1262	37324-23-5	17	U	17	3.4	1
13099	PCB-1268	11100-14-4	17	U	17	3.4	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.1	U	5.1	2.0	1
12952	EFH (C15-C20)	n.a.	5.1	U	5.1	2.0	1
12952	EFH (C21-C30)	n.a.	5.1	U	5.1	2.0	1
12952	EFH (C30-C40)	n.a.	10	U	10	4.1	1
12952	EFH (C8-C11)	n.a.	5.1	U	5.1	2.0	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045D	n.a.	7.23		0.0100	0.0100	1
	The pH was measured in water at 20.3 C.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	2.4		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

*=This limit was used in the evaluation of the final result

Sample Description: SL-509-NBZ-SB-0.0-0.5 Soil
SSFL NBZ

LL Sample # SW 7300107
LL Group # 1438204
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/03/2013 13:15 by KL

Submitted: 12/04/2013 09:35
Reported: 12/30/2013 09:52

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

50900 SDG#: PH138-12

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0771 JBQ	0.996	0.0712	1
11031	12378-PeCDD	40321-76-4	4.98 U	4.98	0.0436	1
11031	123478-HxCDD	39227-28-6	4.98 U	4.98	0.0397	1
11031	123678-HxCDD	57653-85-7	0.0801 JBQ	4.98	0.0410	1
11031	123789-HxCDD	19408-74-3	0.0603 JBQ	4.98	0.0377	1
11031	1234678-HpCDD	35822-46-9	0.626 JBQ	4.98	0.0662	1
11031	OCDD	3268-87-9	2.95 JB	9.96	0.0537	1
11031	2378-TCDF	51207-31-9	0.996 U	0.996	0.0555	1
11031	12378-PeCDF	57117-41-6	0.0635 JBQ	4.98	0.0322	1
11031	23478-PeCDF	57117-31-4	4.98 U	4.98	0.0329	1
11031	123478-HxCDF	70648-26-9	0.831 JB	4.98	0.0586	1
11031	123678-HxCDF	57117-44-9	0.139 JBQ	4.98	0.0527	1
11031	123789-HxCDF	72918-21-9	0.0851 JB	4.98	0.0589	1
11031	234678-HxCDF	60851-34-5	0.0564 JBQ	4.98	0.0505	1
11031	1234678-HpCDF	67562-39-4	0.196 JBQ	4.98	0.0511	1
11031	1234789-HpCDF	55673-89-7	0.155 JBQ	4.98	0.0795	1
11031	OCDF	39001-02-0	0.390 JBQ	9.96	0.0790	1
D/F Toxic Equivalents	**EPA 1613B**		ng/kg	ng/kg	ng/kg	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.0925			1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	62	25 - 164
13C12-12378-PeCDD	72	25 - 181
13C12-123478-HxCDD	79	32 - 141
13C12-123678-HxCDD	79	28 - 130
13C12-123789-HxCDD	80	28 - 130
13C12-1234678-HpCDD	89	23 - 140
13C12-OCDD	96	17 - 157
13C12-2378-TCDF	55	24 - 169
13C12-12378-PeCDF	65	24 - 185
13C12-23478-PeCDF	62	21 - 178
13C12-123478-HxCDF	65	26 - 152
13C12-123678-HxCDF	72	26 - 123
13C12-234678-HxCDF	70	28 - 136
13C12-123789-HxCDF	67	29 - 147
13C12-1234678-HpCDF	98	28 - 143
13C12-1234789-HpCDF	72	26 - 138
13C12-OCDF	75	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column

*=This limit was used in the evaluation of the final result

Sample Description: SL-509-NBZ-SB-0.0-0.5 Soil
SSFL NBZ

LL Sample # SW 7300107
LL Group # 1438204
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/03/2013 13:15 by KL

Submitted: 12/04/2013 09:35
Reported: 12/30/2013 09:52

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

50900 SDG#: PH138-12

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-509-NBZ-SB-0.0-0.5 Soil
SSFL NBZ

LL Sample # SW 7300107
LL Group # 1438204
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/03/2013 13:15 by KL

Submitted: 12/04/2013 09:35
Reported: 12/30/2013 09:52

CDM Federal Programs Corp.
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50900 SDG#: PH138-12

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13344SLD026	12/27/2013 07:51	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	13344SLD026	12/10/2013 17:45	Nicholas W Shroyer	1
10590	20a Pesticides by EPA 8081B	SW-846 8081B	1	133470015A	12/16/2013 20:37	Jamie L Brillhart	1
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	133440006A	12/11/2013 10:36	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	133440006A	12/10/2013 16:00	JoElla L Rice	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	133470015A	12/13/2013 17:50	Sally L Appleyard	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	133440024A	12/12/2013 05:08	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	133440024A	12/11/2013 08:30	Olivia Arosemena	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13346001	12/14/2013 04:48	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13346001	12/12/2013 10:30	Chin F Ly	1
00394	15a pH by 9045D	SW-846 9045D modified	1	13338039402A	12/04/2013 11:00	Carolyn M Mastropietro	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13345162401A	12/11/2013 22:37	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-509-NBZ-SB-2.5-3.5 Soil
SSFL NBZ

LL Sample # SW 7300108
LL Group # 1438204
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/03/2013 13:30 by KL

Submitted: 12/04/2013 09:35
Reported: 12/30/2013 09:52

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

50925 SDG#: PH138-13BKG

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		ug/kg		ug/kg	ug/kg	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.70	1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.35	1
12969	Anthracene	120-12-7	1.7	U	1.7	0.35	1
12969	Benzo(a)anthracene	56-55-3	1.7	U	1.7	0.70	1
12969	Benzo(a)pyrene	50-32-8	1.7	U	1.7	0.70	1
12969	Benzo(b)fluoranthene	205-99-2	1.7	U	1.7	0.70	1
12969	Benzo(e)pyrene	192-97-2	18	U	18	3.5	1
12969	Benzo(g,h,i)perylene	191-24-2	1.7	U	1.7	0.70	1
12969	Benzo(k)fluoranthene	207-08-9	1.7	U	1.7	0.70	1
12969	Butylbenzylphthalate	85-68-7	19	U	19	6.3	1
12969	Di-n-butylphthalate	84-74-2	19	U	19	6.3	1
12969	Chrysene	218-01-9	1.7	U	1.7	0.35	1
12969	Dibenz(a,h)anthracene	53-70-3	1.7	U	1.7	0.70	1
12969	Diethylphthalate	84-66-2	19	U	19	6.3	1
12969	Dimethylphthalate	131-11-3	19	U	19	6.3	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	19	U	19	6.3	1
12969	Fluoranthene	206-44-0	1.7	U	1.7	0.70	1
12969	Fluorene	86-73-7	1.7	U	1.7	0.70	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.7	U	1.7	0.70	1
12969	1-Methylnaphthalene	90-12-0	1.7	U	1.7	0.70	1
12969	2-Methylnaphthalene	91-57-6	1.7	U	1.7	0.70	1
12969	Naphthalene	91-20-3	1.7	U	1.7	0.70	1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.70	1
12969	Di-n-octylphthalate	117-84-0	19	U	19	6.3	1
12969	Phenanthrene	85-01-8	1.7	U	1.7	0.70	1
12969	Pyrene	129-00-0	1.7	U	1.7	0.70	1
GC Volatiles	**TPH GRO SW-846 8015B mod**		mg/kg		mg/kg	mg/kg	
05551	11a TPH by EPA 8015B GRO	n.a.	1.1	U	1.1	0.2	25.1
Pesticides/PCBs	**SW-846 8081B**		ug/kg		ug/kg	ug/kg	
10590	Aldrin	309-00-2	0.87	U	0.87	0.18	1
10590	Alpha BHC	319-84-6	0.87	U	0.87	0.18	1
10590	Beta BHC	319-85-7	2.0	U	2.0	1.0	1
10590	Gamma BHC - Lindane	58-89-9	0.87	U	0.87	0.18	1
10590	Chlordane	57-74-9	18	U	18	4.2	1
10590	p,p-DDD	72-54-8	1.8	U	1.8	0.35	1
10590	p,p-DDE	72-55-9	1.8	U	1.8	0.35	1
10590	p,p-DDT	50-29-3	1.8	U	1.8	0.37	1
10590	Delta BHC	319-86-8	0.87	U	0.87	0.47	1
10590	Dieldrin	60-57-1	1.8	U	1.8	0.35	1
10590	Endosulfan I	959-98-8	0.87	U	0.87	0.23	1
10590	Endosulfan II	33213-65-9	1.8	U	1.8	0.35	1
10590	Endosulfan Sulfate	1031-07-8	1.8	U	1.8	0.35	1
10590	Endrin	72-20-8	1.8	U	1.8	0.35	1
10590	Endrin Aldehyde	7421-93-4	1.8	U	1.8	0.35	1
10590	Endrin Ketone	53494-70-5	1.9	U	1.9	0.63	1
10590	Heptachlor	76-44-8	0.87	U	0.87	0.18	1
10590	Heptachlor Epoxide	1024-57-3	0.87	U	0.87	0.18	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-509-NBZ-SB-2.5-3.5 Soil
SSFL NBZ

LL Sample # SW 7300108
LL Group # 1438204
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/03/2013 13:30 by KL

Submitted: 12/04/2013 09:35
Reported: 12/30/2013 09:52

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

50925 SDG#: PH138-13BKG

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs	**SW-846 8081B**		**ug/kg**		**ug/kg**	**ug/kg**	
10590	Methoxychlor	72-43-5	7.0	U	7.0	1.8	1
10590	Mirex	2385-85-5	1.8	U	1.8	0.37	1
10590	Toxaphene	8001-35-2	35	U	35	15	1
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	35	U	35	10	1
13099	Aroclor 5442	12642-23-8	35	U	35	10	1
13099	Aroclor 5460	11126-42-4	35	U	35	10	1
13099	PCB-1016	12674-11-2	18	U	18	3.5	1
13099	PCB-1221	11104-28-2	18	U	18	5.3	1
13099	PCB-1232	11141-16-5	18	U	18	4.3	1
13099	PCB-1242	53469-21-9	18	U	18	4.3	1
13099	PCB-1248	12672-29-6	18	U	18	3.5	1
13099	PCB-1254	11097-69-1	18	U	18	4.6	1
13099	PCB-1260	11096-82-5	18	U	18	4.1	1
13099	PCB-1262	37324-23-5	18	U	18	3.5	1
13099	PCB-1268	11100-14-4	18	U	18	3.5	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.2	U	5.2	2.1	1
12952	EFH (C15-C20)	n.a.	5.2	U	5.2	2.1	1
12952	EFH (C21-C30)	n.a.	5.2	U	5.2	2.1	1
12952	EFH (C30-C40)	n.a.	10	U	10	4.2	1
12952	EFH (C8-C11)	n.a.	5.2	U	5.2	2.1	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045D	n.a.	7.60		0.0100	0.0100	1
	The pH was measured in water at 20.7 C.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	4.5		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

*=This limit was used in the evaluation of the final result

Sample Description: SL-509-NBZ-SB-2.5-3.5 Soil
SSFL NBZ

LL Sample # SW 7300108
LL Group # 1438204
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/03/2013 13:30 by KL

Submitted: 12/04/2013 09:35
Reported: 12/30/2013 09:52

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

50925 SDG#: PH138-13BKG

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	1.04	U	1.04	0.0557	1
11031	12378-PeCDD	40321-76-4	5.18	U	5.18	0.0416	1
11031	123478-HxCDD	39227-28-6	0.0880	JBQ	5.18	0.0468	1
11031	123678-HxCDD	57653-85-7	0.114	JBQ	5.18	0.0503	1
11031	123789-HxCDD	19408-74-3	0.0645	JBQ	5.18	0.0452	1
11031	1234678-HpCDD	35822-46-9	0.526	JB	5.18	0.0719	1
11031	OCDD	3268-87-9	2.21	JB	10.4	0.0442	1
11031	2378-TCDF	51207-31-9	1.04	U	1.04	0.0460	1
11031	12378-PeCDF	57117-41-6	0.0572	JBQ	5.18	0.0215	1
11031	23478-PeCDF	57117-31-4	0.0346	JBQ	5.18	0.0217	1
11031	123478-HxCDF	70648-26-9	0.0618	JBQ	5.18	0.0383	1
11031	123678-HxCDF	57117-44-9	5.18	U	5.18	0.0347	1
11031	123789-HxCDF	72918-21-9	5.18	U	5.18	0.0400	1
11031	234678-HxCDF	60851-34-5	5.18	U	5.18	0.0342	1
11031	1234678-HpCDF	67562-39-4	0.192	JB	5.18	0.0466	1
11031	1234789-HpCDF	55673-89-7	0.444	JBQ	5.18	0.0702	1
11031	OCDF	39001-02-0	0.292	JBQ	10.4	0.0749	1
D/F Toxic Equivalents	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.00775				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	63	25 - 164
13C12-12378-PeCDD	70	25 - 181
13C12-123478-HxCDD	81	32 - 141
13C12-123678-HxCDD	81	28 - 130
13C12-123789-HxCDD	82	28 - 130
13C12-1234678-HpCDD	88	23 - 140
13C12-OCDD	95	17 - 157
13C12-2378-TCDF	56	24 - 169
13C12-12378-PeCDF	66	24 - 185
13C12-23478-PeCDF	63	21 - 178
13C12-123478-HxCDF	71	26 - 152
13C12-123678-HxCDF	76	26 - 123
13C12-234678-HxCDF	72	28 - 136
13C12-123789-HxCDF	68	29 - 147
13C12-1234678-HpCDF	98	28 - 143
13C12-1234789-HpCDF	72	26 - 138
13C12-OCDF	75	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column

*=This limit was used in the evaluation of the final result

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Environmental

Analysis Report

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Sample Description: SL-509-NBZ-SB-2.5-3.5 Soil
SSFL NBZ

LL Sample # SW 7300108
LL Group # 1438204
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/03/2013 13:30 by KL

Submitted: 12/04/2013 09:35
Reported: 12/30/2013 09:52

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

50925 SDG#: PH138-13BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

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Lancaster Laboratories Environmental
2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Analysis Report

Sample Description: SL-509-NBZ-SB-2.5-3.5 Soil
SSFL NBZ

LL Sample # SW 7300108
LL Group # 1438204
Account # 13013

Project Name: SSFL Phase 3 Sampling

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CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

50925 SDG#: PH138-13BKG

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13344SLD026	12/27/2013 06:14	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	13344SLD026	12/10/2013 17:45	Nicholas W Shroyer	1
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	13339A16A	12/05/2013 23:41	Laura M Krieger	25.1
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201333833331	12/04/2013 14:28	Mitchell R Washel	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201333833331	12/04/2013 14:29	Mitchell R Washel	n.a.
10590	20a Pesticides by EPA 8081B	SW-846 8081B	1	133470015A	12/16/2013 20:52	Jamie L Brillhart	1
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	133440006A	12/11/2013 10:54	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	133440006A	12/10/2013 16:00	JoElla L Rice	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	133470015A	12/13/2013 17:50	Sally L Appleyard	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	133440025A	12/12/2013 02:36	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	133440025A	12/11/2013 08:30	Olivia Arosemena	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13346001	12/14/2013 05:45	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13346001	12/12/2013 10:30	Chin F Ly	1
00394	15a pH by 9045D	SW-846 9045D modified	1	13338039402A	12/04/2013 11:00	Carolyn M Mastropietro	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13345162401B	12/11/2013 22:37	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-509-NBZ-SB-2.5-3.5MS Soil
SSFL NBZ

LL Sample # SW 7300109
LL Group # 1438204
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/03/2013 13:30 by KL

Submitted: 12/04/2013 09:35
Reported: 12/30/2013 09:52

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

50925 SDG#: PH138-13MS

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		ug/kg		ug/kg	ug/kg	
12969	Acenaphthene	83-32-9	35		1.7	0.70	1
12969	Acenaphthylene	208-96-8	35		1.7	0.35	1
12969	Anthracene	120-12-7	35		1.7	0.35	1
12969	Benzo(a)anthracene	56-55-3	39		1.7	0.70	1
12969	Benzo(a)pyrene	50-32-8	38		1.7	0.70	1
12969	Benzo(b)fluoranthene	205-99-2	39		1.7	0.70	1
12969	Benzo(e)pyrene	192-97-2	35		18	3.5	1
12969	Benzo(g,h,i)perylene	191-24-2	39		1.7	0.70	1
12969	Benzo(k)fluoranthene	207-08-9	40		1.7	0.70	1
12969	Butylbenzylphthalate	85-68-7	39		19	6.3	1
12969	Di-n-butylphthalate	84-74-2	36		19	6.3	1
12969	Chrysene	218-01-9	39		1.7	0.35	1
12969	Dibenz(a,h)anthracene	53-70-3	37		1.7	0.70	1
12969	Diethylphthalate	84-66-2	36		19	6.3	1
12969	Dimethylphthalate	131-11-3	37		19	6.3	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	41		19	6.3	1
12969	Fluoranthene	206-44-0	36		1.7	0.70	1
12969	Fluorene	86-73-7	36		1.7	0.70	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	39		1.7	0.70	1
12969	1-Methylnaphthalene	90-12-0	39		1.7	0.70	1
12969	2-Methylnaphthalene	91-57-6	40		1.7	0.70	1
12969	Naphthalene	91-20-3	36		1.7	0.70	1
12969	N-Nitrosodimethylamine	62-75-9	35		1.7	0.70	1
12969	Di-n-octylphthalate	117-84-0	40		19	6.3	1
12969	Phenanthrene	85-01-8	35		1.7	0.70	1
12969	Pyrene	129-00-0	41		1.7	0.70	1
GC Volatiles	**TPH GRO SW-846 8015B mod**		mg/kg		mg/kg	mg/kg	
05551	11a TPH by EPA 8015B GRO	n.a.	10		1.1	0.2	25.72
Pesticides/PCBs	**SW-846 8081B**		ug/kg		ug/kg	ug/kg	
10590	Aldrin	309-00-2	3.6		0.87	0.18	1
10590	Alpha BHC	319-84-6	3.9		0.87	0.18	1
10590	Beta BHC	319-85-7	3.8		2.0	1.0	1
10590	Gamma BHC - Lindane	58-89-9	4.1		0.87	0.18	1
10590	Chlordane	57-74-9	18	U	18	4.2	1
10590	p,p-DDD	72-54-8	8.4		1.8	0.35	1
10590	p,p-DDE	72-55-9	8.0		1.8	0.35	1
10590	p,p-DDT	50-29-3	8.6		1.8	0.37	1
10590	Delta BHC	319-86-8	3.9		0.87	0.47	1
10590	Dieldrin	60-57-1	7.7		1.8	0.35	1
10590	Endosulfan I	959-98-8	3.2		0.87	0.23	1
10590	Endosulfan II	33213-65-9	6.6		1.8	0.35	1
10590	Endosulfan Sulfate	1031-07-8	7.8		1.8	0.35	1
10590	Endrin	72-20-8	7.8		1.8	0.35	1
10590	Endrin Aldehyde	7421-93-4	7.0		1.8	0.35	1
10590	Endrin Ketone	53494-70-5	7.3		1.9	0.63	1
10590	Heptachlor	76-44-8	3.7		0.87	0.18	1
10590	Heptachlor Epoxide	1024-57-3	3.7		0.87	0.18	1

*=This limit was used in the evaluation of the final result

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Lancaster Laboratories Environmental
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Analysis Report

Sample Description: SL-509-NBZ-SB-2.5-3.5MS Soil
SSFL NBZ

LL Sample # SW 7300109
LL Group # 1438204
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/03/2013 13:30 by KL

Submitted: 12/04/2013 09:35
Reported: 12/30/2013 09:52

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

50925 SDG#: PH138-13MS

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs	**SW-846 8081B**		**ug/kg**		**ug/kg**	**ug/kg**	
10590	Methoxychlor	72-43-5	41		7.0	1.8	1
10590	Mirex	2385-85-5	1.8	U	1.8	0.37	1
10590	Toxaphene	8001-35-2	35	U	35	15	1
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	35	U	35	10	1
13099	Aroclor 5442	12642-23-8	35	U	35	10	1
13099	Aroclor 5460	11126-42-4	35	U	35	10	1
13099	PCB-1016	12674-11-2	190		18	3.5	1
13099	PCB-1221	11104-28-2	18	U	18	5.3	1
13099	PCB-1232	11141-16-5	18	U	18	4.3	1
13099	PCB-1242	53469-21-9	18	U	18	4.3	1
13099	PCB-1248	12672-29-6	18	U	18	3.5	1
13099	PCB-1254	11097-69-1	18	U	18	4.6	1
13099	PCB-1260	11096-82-5	200		18	4.1	1
13099	PCB-1262	37324-23-5	18	U	18	3.5	1
13099	PCB-1268	11100-14-4	18	U	18	3.5	1

The recovery for the sample surrogate(s) is outside the QC acceptance limits as noted on the QC Summary. Since this sample is the matrix spike, the data is reported.

GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	4.4	J	5.2	2.1	1
12952	EFH (C15-C20)	n.a.	6.8		5.2	2.1	1
12952	EFH (C21-C30)	n.a.	11		5.2	2.1	1
12952	EFH (C30-C40)	n.a.	12		10	4.2	1
12952	EFH (C8-C11)	n.a.	3.7	J	5.2	2.1	1
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11625	14a Moisture Content by 160.3	n.a.	4.5		0.10	0.10	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-509-NBZ-SB-2.5-3.5MS Soil
SSFL NBZ

LL Sample # SW 7300109
LL Group # 1438204
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/03/2013 13:30 by KL

Submitted: 12/04/2013 09:35
Reported: 12/30/2013 09:52

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

50925 SDG#: PH138-13MS

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	20.0	B	1.03	0.0593	1
11031	12378-PeCDD	40321-76-4	101		5.15	0.0570	1
11031	123478-HxCDD	39227-28-6	103	B	5.15	0.0852	1
11031	123678-HxCDD	57653-85-7	105	B	5.15	0.0908	1
11031	123789-HxCDD	19408-74-3	102	B	5.15	0.0842	1
11031	1234678-HpCDD	35822-46-9	103	B	5.15	0.0894	1
11031	OCDD	3268-87-9	202	B	10.3	0.0557	1
11031	2378-TCDF	51207-31-9	20.6		1.03	0.0547	1
11031	12378-PeCDF	57117-41-6	101	B	5.15	0.0384	1
11031	23478-PeCDF	57117-31-4	103	B	5.15	0.0380	1
11031	123478-HxCDF	70648-26-9	103	B	5.15	0.0598	1
11031	123678-HxCDF	57117-44-9	106	B	5.15	0.0574	1
11031	123789-HxCDF	72918-21-9	104	B	5.15	0.0711	1
11031	234678-HxCDF	60851-34-5	106	B	5.15	0.0595	1
11031	1234678-HpCDF	67562-39-4	103	B	5.15	0.0580	1
11031	1234789-HpCDF	55673-89-7	107	B	5.15	0.0904	1
11031	OCDF	39001-02-0	202	B	10.3	0.0681	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	60	25 - 164
13C12-12378-PeCDD	62	25 - 181
13C12-123478-HxCDD	75	32 - 141
13C12-123678-HxCDD	74	28 - 130
13C12-123789-HxCDD	74	28 - 130
13C12-1234678-HpCDD	78	23 - 140
13C12-OCDD	82	17 - 157
13C12-2378-TCDF	54	24 - 169
13C12-12378-PeCDF	60	24 - 185
13C12-23478-PeCDF	57	21 - 178
13C12-123478-HxCDF	67	26 - 152
13C12-123678-HxCDF	71	26 - 123
13C12-234678-HxCDF	67	28 - 136
13C12-123789-HxCDF	64	29 - 147
13C12-1234678-HpCDF	87	28 - 143
13C12-1234789-HpCDF	65	26 - 138
13C12-OCDF	66	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present
S Saturation of detection signal

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-509-NBZ-SB-2.5-3.5MS Soil
SSFL NBZ

LL Sample # SW 7300109
LL Group # 1438204
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/03/2013 13:30 by KL

Submitted: 12/04/2013 09:35
Reported: 12/30/2013 09:52

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

50925 SDG#: PH138-13MS

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13344SLD026	12/27/2013 06:47	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	13344SLD026	12/10/2013 17:45	Nicholas W Shroyer	1
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	13339A16A	12/06/2013 00:18	Laura M Krieger	25.72
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201333833331	12/04/2013 14:30	Mitchell R Washel	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201333833331	12/04/2013 14:30	Mitchell R Washel	n.a.
10590	20a Pesticides by EPA 8081B	SW-846 8081B	1	133470015A	12/16/2013 21:07	Jamie L Brillhart	1
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	133440006A	12/11/2013 11:13	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	133440006A	12/10/2013 16:00	JoElla L Rice	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	133470015A	12/13/2013 17:50	Sally L Appleyard	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	133440025A	12/12/2013 02:58	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	133440025A	12/11/2013 08:30	Olivia Arosemena	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13346001	12/14/2013 06:41	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13346001	12/12/2013 10:30	Chin F Ly	1
11625	14a Moisture Content by 160.3	EPA 160.3 modified	1	13345162401B	12/11/2013 22:37	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-509-NBZ-SB-2.5-3.5MSD Soil
SSFL NBZ

LL Sample # SW 7300110
LL Group # 1438204
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/03/2013 13:30 by KL

Submitted: 12/04/2013 09:35
Reported: 12/30/2013 09:52

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

50925 SDG#: PH138-13MSD

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		ug/kg		ug/kg	ug/kg	
12969	Acenaphthene	83-32-9	34		1.7	0.70	1
12969	Acenaphthylene	208-96-8	35		1.7	0.35	1
12969	Anthracene	120-12-7	35		1.7	0.35	1
12969	Benzo(a)anthracene	56-55-3	39		1.7	0.70	1
12969	Benzo(a)pyrene	50-32-8	37		1.7	0.70	1
12969	Benzo(b)fluoranthene	205-99-2	38		1.7	0.70	1
12969	Benzo(e)pyrene	192-97-2	35		18	3.5	1
12969	Benzo(g,h,i)perylene	191-24-2	39		1.7	0.70	1
12969	Benzo(k)fluoranthene	207-08-9	40		1.7	0.70	1
12969	Butylbenzylphthalate	85-68-7	40		19	6.3	1
12969	Di-n-butylphthalate	84-74-2	36		19	6.3	1
12969	Chrysene	218-01-9	39		1.7	0.35	1
12969	Dibenz(a,h)anthracene	53-70-3	37		1.7	0.70	1
12969	Diethylphthalate	84-66-2	36		19	6.3	1
12969	Dimethylphthalate	131-11-3	36		19	6.3	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	39		19	6.3	1
12969	Fluoranthene	206-44-0	36		1.7	0.70	1
12969	Fluorene	86-73-7	35		1.7	0.70	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	38		1.7	0.70	1
12969	1-Methylnaphthalene	90-12-0	39		1.7	0.70	1
12969	2-Methylnaphthalene	91-57-6	40		1.7	0.70	1
12969	Naphthalene	91-20-3	35		1.7	0.70	1
12969	N-Nitrosodimethylamine	62-75-9	35		1.7	0.70	1
12969	Di-n-octylphthalate	117-84-0	40		19	6.3	1
12969	Phenanthrene	85-01-8	34		1.7	0.70	1
12969	Pyrene	129-00-0	40		1.7	0.70	1
GC Volatiles	**TPH GRO SW-846 8015B mod**		mg/kg		mg/kg	mg/kg	
05551	11a TPH by EPA 8015B GRO	n.a.	10		1.0	0.2	24.41
Pesticides/PCBs	**SW-846 8081B**		ug/kg		ug/kg	ug/kg	
10590	Aldrin	309-00-2	3.6		0.87	0.18	1
10590	Alpha BHC	319-84-6	4.0		0.87	0.18	1
10590	Beta BHC	319-85-7	3.8		2.0	1.0	1
10590	Gamma BHC - Lindane	58-89-9	4.2		0.87	0.18	1
10590	Chlordane	57-74-9	18	U	18	4.2	1
10590	p,p-DDD	72-54-8	8.5		1.8	0.35	1
10590	p,p-DDE	72-55-9	8.2		1.8	0.35	1
10590	p,p-DDT	50-29-3	8.7		1.8	0.37	1
10590	Delta BHC	319-86-8	4.0		0.87	0.47	1
10590	Dieldrin	60-57-1	7.9		1.8	0.35	1
10590	Endosulfan I	959-98-8	3.3		0.87	0.23	1
10590	Endosulfan II	33213-65-9	6.8		1.8	0.35	1
10590	Endosulfan Sulfate	1031-07-8	7.8		1.8	0.35	1
10590	Endrin	72-20-8	7.9		1.8	0.35	1
10590	Endrin Aldehyde	7421-93-4	7.1		1.8	0.35	1
10590	Endrin Ketone	53494-70-5	7.3		1.9	0.63	1
10590	Heptachlor	76-44-8	3.7		0.87	0.18	1
10590	Heptachlor Epoxide	1024-57-3	3.8		0.87	0.18	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-509-NBZ-SB-2.5-3.5MSD Soil SSFL NBZ

LL Sample # SW 7300110
LL Group # 1438204
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/03/2013 13:30 by KL

Submitted: 12/04/2013 09:35
Reported: 12/30/2013 09:52

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

50925 SDG#: PH138-13MSD

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs	**SW-846 8081B**		**ug/kg**		**ug/kg**	**ug/kg**	
10590	Methoxychlor	72-43-5	41		7.0	1.8	1
10590	Mirex	2385-85-5	1.8	U	1.8	0.37	1
10590	Toxaphene	8001-35-2	35	U	35	15	1
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	35	U	35	10	1
13099	Aroclor 5442	12642-23-8	35	U	35	10	1
13099	Aroclor 5460	11126-42-4	35	U	35	10	1
13099	PCB-1016	12674-11-2	170		18	3.5	1
13099	PCB-1221	11104-28-2	18	U	18	5.3	1
13099	PCB-1232	11141-16-5	18	U	18	4.3	1
13099	PCB-1242	53469-21-9	18	U	18	4.3	1
13099	PCB-1248	12672-29-6	18	U	18	3.5	1
13099	PCB-1254	11097-69-1	18	U	18	4.6	1
13099	PCB-1260	11096-82-5	180		18	4.1	1
13099	PCB-1262	37324-23-5	18	U	18	3.5	1
13099	PCB-1268	11100-14-4	18	U	18	3.5	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	4.4	J	5.2	2.1	1
12952	EFH (C15-C20)	n.a.	6.9		5.2	2.1	1
12952	EFH (C21-C30)	n.a.	11		5.2	2.1	1
12952	EFH (C30-C40)	n.a.	10	J	10	4.2	1
12952	EFH (C8-C11)	n.a.	3.7	J	5.2	2.1	1
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11625	14a Moisture Content by 160.3	n.a.	4.5		0.10	0.10	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-509-NBZ-SB-2.5-3.5MSD Soil
SSFL NBZ

LL Sample # SW 7300110
LL Group # 1438204
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/03/2013 13:30 by KL

Submitted: 12/04/2013 09:35
Reported: 12/30/2013 09:52

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

50925 SDG#: PH138-13MSD

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	20.3	B	1.04	0.0806	1
11031	12378-PeCDD	40321-76-4	102		5.20	0.0561	1
11031	123478-HxCDD	39227-28-6	103	B	5.20	0.0598	1
11031	123678-HxCDD	57653-85-7	106	B	5.20	0.0649	1
11031	123789-HxCDD	19408-74-3	103	B	5.20	0.0597	1
11031	1234678-HpCDD	35822-46-9	104	B	5.20	0.0779	1
11031	OCDD	3268-87-9	207	B	10.4	0.0553	1
11031	2378-TCDF	51207-31-9	20.6		1.04	0.0664	1
11031	12378-PeCDF	57117-41-6	102	B	5.20	0.0359	1
11031	23478-PeCDF	57117-31-4	103	B	5.20	0.0333	1
11031	123478-HxCDF	70648-26-9	104	B	5.20	0.0427	1
11031	123678-HxCDF	57117-44-9	109	B	5.20	0.0400	1
11031	123789-HxCDF	72918-21-9	107	B	5.20	0.0454	1
11031	234678-HxCDF	60851-34-5	106	B	5.20	0.0405	1
11031	1234678-HpCDF	67562-39-4	105	B	5.20	0.0469	1
11031	1234789-HpCDF	55673-89-7	108	B	5.20	0.0658	1
11031	OCDF	39001-02-0	205	B	10.4	0.0489	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	60	25 - 164
13C12-12378-PeCDD	71	25 - 181
13C12-123478-HxCDD	81	32 - 141
13C12-123678-HxCDD	81	28 - 130
13C12-123789-HxCDD	82	28 - 130
13C12-1234678-HpCDD	90	23 - 140
13C12-OCDD	95	17 - 157
13C12-2378-TCDF	53	24 - 169
13C12-12378-PeCDF	66	24 - 185
13C12-23478-PeCDF	65	21 - 178
13C12-123478-HxCDF	71	26 - 152
13C12-123678-HxCDF	74	26 - 123
13C12-234678-HxCDF	73	28 - 136
13C12-123789-HxCDF	72	29 - 147
13C12-1234678-HpCDF	95	28 - 143
13C12-1234789-HpCDF	78	26 - 138
13C12-OCDF	81	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present
S Saturation of detection signal

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-509-NBZ-SB-2.5-3.5MSD Soil
SSFL NBZ

LL Sample # SW 7300110
LL Group # 1438204
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/03/2013 13:30 by KL

Submitted: 12/04/2013 09:35
Reported: 12/30/2013 09:52

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

50925 SDG#: PH138-13MSD

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13344SLD026	12/27/2013 07:19	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	13344SLD026	12/10/2013 17:45	Nicholas W Shroyer	1
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	13339A16A	12/06/2013 00:56	Laura M Krieger	24.41
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201333833331	12/04/2013 14:31	Mitchell R Washel	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201333833331	12/04/2013 14:32	Mitchell R Washel	n.a.
10590	20a Pesticides by EPA 8081B	SW-846 8081B	1	133470015A	12/16/2013 21:22	Jamie L Brillhart	1
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	133440006A	12/11/2013 11:31	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	133440006A	12/10/2013 16:00	JoElla L Rice	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	133470015A	12/13/2013 17:50	Sally L Appleyard	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	133440025A	12/12/2013 03:20	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	133440025A	12/11/2013 08:30	Olivia Arosemena	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13346001	12/14/2013 07:38	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13346001	12/12/2013 10:30	Chin F Ly	1
11625	14a Moisture Content by 160.3	EPA 160.3 modified	1	13345162401B	12/11/2013 22:37	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-509-NBZ-SB-2.5-3.5DUP Soil
SSFL NBZ

LL Sample # SW 7300111
LL Group # 1438204
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/03/2013 13:30 by KL

Submitted: 12/04/2013 09:35
Reported: 12/30/2013 09:52

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

50925 SDG#: PH138-13DUP

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**	**Std. Units**	**Std. Units**	
00394	15a pH by 9045D The pH was measured in water at 20 C.	n.a.	7.53	0.0100	0.0100	1
Wet Chemistry	**EPA 160.3 modified**		**%**	**%**	**%**	
11625	14a Moisture Content by 160.3	n.a.	4.5	0.10	0.10	1
11626	14a Moisture Content by 160.3	n.a.	4.4	0.10	0.10	1
	The duplicate moisture value is provided to assess the precision of the moisture test. For comparability purposes, the initial moisture determination is the value used to perform dry weight calculations.					

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00394	15a pH by 9045D	SW-846 9045D modified	1	13338039402A	12/04/2013 11:00	Carolyn M Mastropietro	1
11625	14a Moisture Content by 160.3	EPA 160.3 modified	1	13345162401B	12/11/2013 22:37	Scott W Freisher	1
11626	14a Moisture Content by 160.3	EPA 160.3 modified	1	13345162401B	12/11/2013 22:37	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-809-NBZ-SB-2.5-3.5 Soil
SSFL NBZ

LL Sample # SW 7300112
LL Group # 1438204
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/03/2013 13:40 by KL

Submitted: 12/04/2013 09:35
Reported: 12/30/2013 09:52

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

S0925 SDG#: PH138-14

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.8	U	1.8	0.70	1
12969	Acenaphthylene	208-96-8	1.8	U	1.8	0.35	1
12969	Anthracene	120-12-7	1.8	U	1.8	0.35	1
12969	Benzo(a)anthracene	56-55-3	1.8	U	1.8	0.70	1
12969	Benzo(a)pyrene	50-32-8	1.8	U	1.8	0.70	1
12969	Benzo(b)fluoranthene	205-99-2	1.8	U	1.8	0.70	1
12969	Benzo(e)pyrene	192-97-2	18	U	18	3.5	1
12969	Benzo(g,h,i)perylene	191-24-2	1.8	U	1.8	0.70	1
12969	Benzo(k)fluoranthene	207-08-9	1.8	U	1.8	0.70	1
12969	Butylbenzylphthalate	85-68-7	19	U	19	6.3	1
12969	Di-n-butylphthalate	84-74-2	19	U	19	6.3	1
12969	Chrysene	218-01-9	1.8	U	1.8	0.35	1
12969	Dibenz(a,h)anthracene	53-70-3	1.8	U	1.8	0.70	1
12969	Diethylphthalate	84-66-2	19	U	19	6.3	1
12969	Dimethylphthalate	131-11-3	19	U	19	6.3	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	19	U	19	6.3	1
12969	Fluoranthene	206-44-0	1.8	U	1.8	0.70	1
12969	Fluorene	86-73-7	1.8	U	1.8	0.70	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.8	U	1.8	0.70	1
12969	1-Methylnaphthalene	90-12-0	1.8	U	1.8	0.70	1
12969	2-Methylnaphthalene	91-57-6	1.8	U	1.8	0.70	1
12969	Naphthalene	91-20-3	1.8	U	1.8	0.70	1
12969	N-Nitrosodimethylamine	62-75-9	1.8	U	1.8	0.70	1
12969	Di-n-octylphthalate	117-84-0	19	U	19	6.3	1
12969	Phenanthrene	85-01-8	1.8	U	1.8	0.70	1
12969	Pyrene	129-00-0	1.8	U	1.8	0.70	1
GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	1.1	U	1.1	0.2	25
Pesticides/PCBs	**SW-846 8081B**		**ug/kg**		**ug/kg**	**ug/kg**	
10590	Aldrin	309-00-2	0.88	U	0.88	0.18	1
10590	Alpha BHC	319-84-6	0.88	U	0.88	0.18	1
10590	Beta BHC	319-85-7	2.0	U	2.0	1.0	1
10590	Gamma BHC - Lindane	58-89-9	0.88	U	0.88	0.18	1
10590	Chlordane	57-74-9	18	U	18	4.2	1
10590	p,p-DDD	72-54-8	1.8	U	1.8	0.35	1
10590	p,p-DDE	72-55-9	1.8	U	1.8	0.35	1
10590	p,p-DDT	50-29-3	1.8	U	1.8	0.37	1
10590	Delta BHC	319-86-8	0.88	U	0.88	0.48	1
10590	Dieldrin	60-57-1	1.8	U	1.8	0.35	1
10590	Endosulfan I	959-98-8	0.88	U	0.88	0.23	1
10590	Endosulfan II	33213-65-9	1.8	U	1.8	0.35	1
10590	Endosulfan Sulfate	1031-07-8	1.8	U	1.8	0.35	1
10590	Endrin	72-20-8	1.8	U	1.8	0.35	1
10590	Endrin Aldehyde	7421-93-4	1.8	U	1.8	0.35	1
10590	Endrin Ketone	53494-70-5	1.9	U	1.9	0.63	1
10590	Heptachlor	76-44-8	0.88	U	0.88	0.18	1
10590	Heptachlor Epoxide	1024-57-3	0.88	U	0.88	0.18	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-809-NBZ-SB-2.5-3.5 Soil
SSFL NBZ

LL Sample # SW 7300112
LL Group # 1438204
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/03/2013 13:40 by KL

Submitted: 12/04/2013 09:35
Reported: 12/30/2013 09:52

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

S0925 SDG#: PH138-14

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs	**SW-846 8081B**		**ug/kg**		**ug/kg**	**ug/kg**	
10590	Methoxychlor	72-43-5	7.1	U	7.1	1.8	1
10590	Mirex	2385-85-5	1.8	U	1.8	0.37	1
10590	Toxaphene	8001-35-2	35	U	35	15	1
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	35	U	35	11	1
13099	Aroclor 5442	12642-23-8	35	U	35	11	1
13099	Aroclor 5460	11126-42-4	35	U	35	11	1
13099	PCB-1016	12674-11-2	18	U	18	3.5	1
13099	PCB-1221	11104-28-2	18	U	18	5.4	1
13099	PCB-1232	11141-16-5	18	U	18	4.3	1
13099	PCB-1242	53469-21-9	18	U	18	4.3	1
13099	PCB-1248	12672-29-6	18	U	18	3.5	1
13099	PCB-1254	11097-69-1	18	U	18	4.7	1
13099	PCB-1260	11096-82-5	18	U	18	4.1	1
13099	PCB-1262	37324-23-5	18	U	18	3.5	1
13099	PCB-1268	11100-14-4	18	U	18	3.5	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.3	U	5.3	2.1	1
12952	EFH (C15-C20)	n.a.	5.3	U	5.3	2.1	1
12952	EFH (C21-C30)	n.a.	5.3	U	5.3	2.1	1
12952	EFH (C30-C40)	n.a.	11	U	11	4.2	1
12952	EFH (C8-C11)	n.a.	5.3	U	5.3	2.1	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045D	n.a.	7.65		0.0100	0.0100	1
	The pH was measured in water at 20 C.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	5.4		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

*=This limit was used in the evaluation of the final result

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Lancaster Laboratories Environmental
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Analysis Report

Sample Description: SL-809-NBZ-SB-2.5-3.5 Soil
SSFL NBZ

LL Sample # SW 7300112
LL Group # 1438204
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/03/2013 13:40 by KL

Submitted: 12/04/2013 09:35
Reported: 12/30/2013 09:52

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

S0925 SDG#: PH138-14

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	1.03	U	1.03	0.0508	1
11031	12378-PeCDD	40321-76-4	0.107	JQ	5.17	0.0340	1
11031	123478-HxCDD	39227-28-6	0.0335	JBQ	5.17	0.0248	1
11031	123678-HxCDD	57653-85-7	0.0613	JBQ	5.17	0.0260	1
11031	123789-HxCDD	19408-74-3	0.0623	JBQ	5.17	0.0242	1
11031	1234678-HpCDD	35822-46-9	0.235	JBQ	5.17	0.0319	1
11031	OCDD	3268-87-9	0.870	JBQ	10.3	0.0316	1
11031	2378-TCDF	51207-31-9	1.03	U	1.03	0.0393	1
11031	12378-PeCDF	57117-41-6	0.0539	JBQ	5.17	0.0190	1
11031	23478-PeCDF	57117-31-4	0.0469	JBQ	5.17	0.0186	1
11031	123478-HxCDF	70648-26-9	0.0616	JB	5.17	0.0223	1
11031	123678-HxCDF	57117-44-9	0.0491	JB	5.17	0.0205	1
11031	123789-HxCDF	72918-21-9	0.0762	JBQ	5.17	0.0240	1
11031	234678-HxCDF	60851-34-5	0.0373	JB	5.17	0.0205	1
11031	1234678-HpCDF	67562-39-4	0.0628	JBQ	5.17	0.0140	1
11031	1234789-HpCDF	55673-89-7	0.0419	JBQ	5.17	0.0195	1
11031	OCDF	39001-02-0	0.278	JBQ	10.3	0.0334	1
D/F Toxic Equivalents	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.0147				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	72	25 - 164
13C12-12378-PeCDD	75	25 - 181
13C12-123478-HxCDD	86	32 - 141
13C12-123678-HxCDD	87	28 - 130
13C12-123789-HxCDD	86	28 - 130
13C12-1234678-HpCDD	87	23 - 140
13C12-OCDD	88	17 - 157
13C12-2378-TCDF	67	24 - 169
13C12-12378-PeCDF	73	24 - 185
13C12-23478-PeCDF	70	21 - 178
13C12-123478-HxCDF	77	26 - 152
13C12-123678-HxCDF	81	26 - 123
13C12-234678-HxCDF	78	28 - 136
13C12-123789-HxCDF	74	29 - 147
13C12-1234678-HpCDF	92	28 - 143
13C12-1234789-HpCDF	75	26 - 138
13C12-OCDF	74	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column

*=This limit was used in the evaluation of the final result

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Lancaster Laboratories Environmental

Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: SL-809-NBZ-SB-2.5-3.5 Soil
SSFL NBZ

LL Sample # SW 7300112
LL Group # 1438204
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/03/2013 13:40 by KL

Submitted: 12/04/2013 09:35
Reported: 12/30/2013 09:52

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

S0925 SDG#: PH138-14

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

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Lancaster Laboratories Environmental
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Analysis Report

Sample Description: SL-809-NBZ-SB-2.5-3.5 Soil
SSFL NBZ

LL Sample # SW 7300112
LL Group # 1438204
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/03/2013 13:40 by KL

Submitted: 12/04/2013 09:35
Reported: 12/30/2013 09:52

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

S0925 SDG#: PH138-14

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13344SLD026	12/27/2013 08:24	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	13344SLD026	12/10/2013 17:45	Nicholas W Shroyer	1
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	13339A16A	12/06/2013 03:27	Laura M Krieger	25
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201333833331	12/04/2013 14:33	Mitchell R Washel	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201333833331	12/04/2013 14:33	Mitchell R Washel	n.a.
10590	20a Pesticides by EPA 8081B	SW-846 8081B	1	133470015A	12/16/2013 21:38	Jamie L Brillhart	1
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	133440006A	12/11/2013 11:50	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	133440006A	12/10/2013 16:00	JoElla L Rice	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	133470015A	12/13/2013 17:50	Sally L Appleyard	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	133440025A	12/12/2013 03:41	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	133440025A	12/11/2013 08:30	Olivia Arosemena	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13346001	12/14/2013 11:32	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13346001	12/12/2013 10:30	Chin F Ly	1
00394	15a pH by 9045D	SW-846 9045D modified	1	13338039402A	12/04/2013 11:00	Carolyn M Mastropietro	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13345162401B	12/11/2013 22:37	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-510-NBZ-SB-0.0-0.5 Soil
SSFL NBZ

LL Sample # SW 7300113
LL Group # 1438204
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/03/2013 14:30 by KL

Submitted: 12/04/2013 09:35
Reported: 12/30/2013 09:52

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51000 SDG#: PH138-15

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		ug/kg		ug/kg	ug/kg	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.70	1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.35	1
12969	Anthracene	120-12-7	1.7	U	1.7	0.35	1
12969	Benzo(a)anthracene	56-55-3	1.7	U	1.7	0.70	1
12969	Benzo(a)pyrene	50-32-8	1.7	U	1.7	0.70	1
12969	Benzo(b)fluoranthene	205-99-2	1.7	U	1.7	0.70	1
12969	Benzo(e)pyrene	192-97-2	18	U	18	3.5	1
12969	Benzo(g,h,i)perylene	191-24-2	1.7	U	1.7	0.70	1
12969	Benzo(k)fluoranthene	207-08-9	1.7	U	1.7	0.70	1
12969	Butylbenzylphthalate	85-68-7	19	U	19	6.3	1
12969	Di-n-butylphthalate	84-74-2	19	U	19	6.3	1
12969	Chrysene	218-01-9	1.7	U	1.7	0.35	1
12969	Dibenz(a,h)anthracene	53-70-3	1.7	U	1.7	0.70	1
12969	Diethylphthalate	84-66-2	19	U	19	6.3	1
12969	Dimethylphthalate	131-11-3	19	U	19	6.3	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	19	U	19	6.3	1
12969	Fluoranthene	206-44-0	1.7	U	1.7	0.70	1
12969	Fluorene	86-73-7	1.7	U	1.7	0.70	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.7	U	1.7	0.70	1
12969	1-Methylnaphthalene	90-12-0	1.7	U	1.7	0.70	1
12969	2-Methylnaphthalene	91-57-6	1.7	U	1.7	0.70	1
12969	Naphthalene	91-20-3	1.7	U	1.7	0.70	1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.70	1
12969	Di-n-octylphthalate	117-84-0	19	U	19	6.3	1
12969	Phenanthrene	85-01-8	1.7	U	1.7	0.70	1
12969	Pyrene	129-00-0	1.7	U	1.7	0.70	1
Pesticides/PCBs	**SW-846 8081B**		ug/kg		ug/kg	ug/kg	
10590	Aldrin	309-00-2	0.87	U	0.87	0.18	1
10590	Alpha BHC	319-84-6	0.87	U	0.87	0.18	1
10590	Beta BHC	319-85-7	2.0	U	2.0	1.0	1
10590	Gamma BHC - Lindane	58-89-9	0.87	U	0.87	0.18	1
10590	Chlordane	57-74-9	18	U	18	4.2	1
10590	p,p-DDD	72-54-8	1.8	U	1.8	0.35	1
10590	p,p-DDE	72-55-9	1.8	U	1.8	0.35	1
10590	p,p-DDT	50-29-3	1.8	U	1.8	0.37	1
10590	Delta BHC	319-86-8	0.87	U	0.87	0.47	1
10590	Dieldrin	60-57-1	1.8	U	1.8	0.35	1
10590	Endosulfan I	959-98-8	0.87	U	0.87	0.23	1
10590	Endosulfan II	33213-65-9	1.8	U	1.8	0.35	1
10590	Endosulfan Sulfate	1031-07-8	1.8	U	1.8	0.35	1
10590	Endrin	72-20-8	1.8	U	1.8	0.35	1
10590	Endrin Aldehyde	7421-93-4	1.8	U	1.8	0.35	1
10590	Endrin Ketone	53494-70-5	1.9	U	1.9	0.63	1
10590	Heptachlor	76-44-8	0.87	U	0.87	0.18	1
10590	Heptachlor Epoxide	1024-57-3	0.87	U	0.87	0.18	1
10590	Methoxychlor	72-43-5	7.0	U	7.0	1.8	1
10590	Mirex	2385-85-5	1.8	U	1.8	0.37	1
10590	Toxaphene	8001-35-2	35	U	35	15	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-510-NBZ-SB-0.0-0.5 Soil
SSFL NBZ

LL Sample # SW 7300113
LL Group # 1438204
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/03/2013 14:30 by KL

Submitted: 12/04/2013 09:35
Reported: 12/30/2013 09:52

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51000 SDG#: PH138-15

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	35	U	35	10	1
13099	Aroclor 5442	12642-23-8	35	U	35	10	1
13099	Aroclor 5460	11126-42-4	35	U	35	10	1
13099	PCB-1016	12674-11-2	18	U	18	3.5	1
13099	PCB-1221	11104-28-2	18	U	18	5.3	1
13099	PCB-1232	11141-16-5	18	U	18	4.3	1
13099	PCB-1242	53469-21-9	18	U	18	4.3	1
13099	PCB-1248	12672-29-6	18	U	18	3.5	1
13099	PCB-1254	11097-69-1	18	U	18	4.6	1
13099	PCB-1260	11096-82-5	18	U	18	4.1	1
13099	PCB-1262	37324-23-5	18	U	18	3.5	1
13099	PCB-1268	11100-14-4	18	U	18	3.5	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.2	U	5.2	2.1	1
12952	EFH (C15-C20)	n.a.	5.2	U	5.2	2.1	1
12952	EFH (C21-C30)	n.a.	5.2	U	5.2	2.1	1
12952	EFH (C30-C40)	n.a.	10	U	10	4.2	1
12952	EFH (C8-C11)	n.a.	5.2	U	5.2	2.1	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045D	n.a.	7.93		0.0100	0.0100	1
	The pH was measured in water at 19.9 C.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	4.6		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

*=This limit was used in the evaluation of the final result

Sample Description: SL-510-NBZ-SB-0.0-0.5 Soil
SSFL NBZ

LL Sample # SW 7300113
LL Group # 1438204
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/03/2013 14:30 by KL

Submitted: 12/04/2013 09:35
Reported: 12/30/2013 09:52

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51000 SDG#: PH138-15

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0636	JB	1.03	0.0589	1
11031	12378-PeCDD	40321-76-4	0.0784	JQ	5.17	0.0373	1
11031	123478-HxCDD	39227-28-6	5.17	U	5.17	0.0286	1
11031	123678-HxCDD	57653-85-7	0.0681	JBQ	5.17	0.0305	1
11031	123789-HxCDD	19408-74-3	0.0595	JBQ	5.17	0.0282	1
11031	1234678-HpCDD	35822-46-9	0.539	JBQ	5.17	0.0355	1
11031	OCDD	3268-87-9	3.04	JB	10.3	0.0301	1
11031	2378-TCDF	51207-31-9	0.0810	JQ	1.03	0.0393	1
11031	12378-PeCDF	57117-41-6	0.0446	JB	5.17	0.0199	1
11031	23478-PeCDF	57117-31-4	0.0316	JBQ	5.17	0.0192	1
11031	123478-HxCDF	70648-26-9	0.0756	JB	5.17	0.0198	1
11031	123678-HxCDF	57117-44-9	5.17	U	5.17	0.0183	1
11031	123789-HxCDF	72918-21-9	0.0883	JBQ	5.17	0.0230	1
11031	234678-HxCDF	60851-34-5	0.0301	JBQ	5.17	0.0192	1
11031	1234678-HpCDF	67562-39-4	0.110	JBQ	5.17	0.0128	1
11031	1234789-HpCDF	55673-89-7	0.0570	JBQ	5.17	0.0191	1
11031	OCDF	39001-02-0	0.280	JBQ	10.3	0.0360	1
D/F Toxic Equivalents	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.0735				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	62	25 - 164
13C12-12378-PeCDD	65	25 - 181
13C12-123478-HxCDD	78	32 - 141
13C12-123678-HxCDD	77	28 - 130
13C12-123789-HxCDD	77	28 - 130
13C12-1234678-HpCDD	79	23 - 140
13C12-OCDD	79	17 - 157
13C12-2378-TCDF	56	24 - 169
13C12-12378-PeCDF	63	24 - 185
13C12-23478-PeCDF	60	21 - 178
13C12-123478-HxCDF	68	26 - 152
13C12-123678-HxCDF	72	26 - 123
13C12-234678-HxCDF	70	28 - 136
13C12-123789-HxCDF	66	29 - 147
13C12-1234678-HpCDF	84	28 - 143
13C12-1234789-HpCDF	67	26 - 138
13C12-OCDF	66	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column

*=This limit was used in the evaluation of the final result

Sample Description: SL-510-NBZ-SB-0.0-0.5 Soil
SSFL NBZ

LL Sample # SW 7300113
LL Group # 1438204
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/03/2013 14:30 by KL

Submitted: 12/04/2013 09:35
Reported: 12/30/2013 09:52

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51000 SDG#: PH138-15

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-510-NBZ-SB-0.0-0.5 Soil
SSFL NBZ

LL Sample # SW 7300113
LL Group # 1438204
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/03/2013 14:30 by KL

Submitted: 12/04/2013 09:35
Reported: 12/30/2013 09:52

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51000 SDG#: PH138-15

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13344SLD026	12/27/2013 08:56	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	13344SLD026	12/10/2013 17:45	Nicholas W Shroyer	1
10590	20a Pesticides by EPA 8081B	SW-846 8081B	1	133470015A	12/16/2013 21:53	Jamie L Brillhart	1
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	133440006A	12/11/2013 12:08	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	133440006A	12/10/2013 16:00	JoElla L Rice	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	133470015A	12/13/2013 17:50	Sally L Appleyard	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	133440025A	12/12/2013 04:03	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	133440025A	12/11/2013 08:30	Olivia Arosemena	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13346001	12/14/2013 12:29	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13346001	12/12/2013 10:30	Chin F Ly	1
00394	15a pH by 9045D	SW-846 9045D modified	1	13338039402A	12/04/2013 11:00	Carolyn M Mastropietro	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13345162401B	12/11/2013 22:37	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-510-NBZ-SB-4.0-5.0 Soil
SSFL NBZ

LL Sample # SW 7300114
LL Group # 1438204
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/03/2013 14:45 by KL

Submitted: 12/04/2013 09:35
Reported: 12/30/2013 09:52

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51045 SDG#: PH138-16

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.8	U	1.8	0.73	1
12969	Acenaphthylene	208-96-8	1.8	U	1.8	0.36	1
12969	Anthracene	120-12-7	1.8	U	1.8	0.36	1
12969	Benzo(a)anthracene	56-55-3	1.8	U	1.8	0.73	1
12969	Benzo(a)pyrene	50-32-8	1.8	U	1.8	0.73	1
12969	Benzo(b)fluoranthene	205-99-2	1.8	U	1.8	0.73	1
12969	Benzo(e)pyrene	192-97-2	19	U	19	3.6	1
12969	Benzo(g,h,i)perylene	191-24-2	1.8	U	1.8	0.73	1
12969	Benzo(k)fluoranthene	207-08-9	1.8	U	1.8	0.73	1
12969	Butylbenzylphthalate	85-68-7	20	U	20	6.5	1
12969	Di-n-butylphthalate	84-74-2	20	U	20	6.5	1
12969	Chrysene	218-01-9	1.8	U	1.8	0.36	1
12969	Dibenz(a,h)anthracene	53-70-3	1.8	U	1.8	0.73	1
12969	Diethylphthalate	84-66-2	20	U	20	6.5	1
12969	Dimethylphthalate	131-11-3	20	U	20	6.5	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	20	U	20	6.5	1
12969	Fluoranthene	206-44-0	1.8	U	1.8	0.73	1
12969	Fluorene	86-73-7	1.8	U	1.8	0.73	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.8	U	1.8	0.73	1
12969	1-Methylnaphthalene	90-12-0	1.8	U	1.8	0.73	1
12969	2-Methylnaphthalene	91-57-6	1.8	U	1.8	0.73	1
12969	Naphthalene	91-20-3	1.8	U	1.8	0.73	1
12969	N-Nitrosodimethylamine	62-75-9	1.8	U	1.8	0.73	1
12969	Di-n-octylphthalate	117-84-0	20	U	20	6.5	1
12969	Phenanthrene	85-01-8	1.8	U	1.8	0.73	1
12969	Pyrene	129-00-0	1.8	U	1.8	0.73	1
GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	1.1	U	1.1	0.2	25.35
Pesticides/PCBs	**SW-846 8081B**		**ug/kg**		**ug/kg**	**ug/kg**	
10590	Aldrin	309-00-2	0.91	U	0.91	0.19	1
10590	Alpha BHC	319-84-6	0.91	U	0.91	0.19	1
10590	Beta BHC	319-85-7	2.1	U	2.1	1.0	1
10590	Gamma BHC - Lindane	58-89-9	0.91	U	0.91	0.19	1
10590	Chlordane	57-74-9	19	U	19	4.4	1
10590	p,p-DDD	72-54-8	1.9	U	1.9	0.36	1
10590	p,p-DDE	72-55-9	1.9	U	1.9	0.36	1
10590	p,p-DDT	50-29-3	1.9	U	1.9	0.38	1
10590	Delta BHC	319-86-8	0.91	U	0.91	0.49	1
10590	Dieldrin	60-57-1	1.9	U	1.9	0.36	1
10590	Endosulfan I	959-98-8	0.91	U	0.91	0.24	1
10590	Endosulfan II	33213-65-9	1.9	U	1.9	0.36	1
10590	Endosulfan Sulfate	1031-07-8	1.9	U	1.9	0.36	1
10590	Endrin	72-20-8	1.9	U	1.9	0.36	1
10590	Endrin Aldehyde	7421-93-4	1.9	U	1.9	0.36	1
10590	Endrin Ketone	53494-70-5	2.0	U	2.0	0.65	1
10590	Heptachlor	76-44-8	0.91	U	0.91	0.19	1
10590	Heptachlor Epoxide	1024-57-3	0.91	U	0.91	0.19	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-510-NBZ-SB-4.0-5.0 Soil
SSFL NBZ

LL Sample # SW 7300114
LL Group # 1438204
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/03/2013 14:45 by KL

Submitted: 12/04/2013 09:35
Reported: 12/30/2013 09:52

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51045 SDG#: PH138-16

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs	**SW-846 8081B**		**ug/kg**		**ug/kg**	**ug/kg**	
10590	Methoxychlor	72-43-5	7.3	U	7.3	1.9	1
10590	Mirex	2385-85-5	1.9	U	1.9	0.38	1
10590	Toxaphene	8001-35-2	36	U	36	15	1
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	36	U	36	11	1
13099	Aroclor 5442	12642-23-8	36	U	36	11	1
13099	Aroclor 5460	11126-42-4	36	U	36	11	1
13099	PCB-1016	12674-11-2	19	U	19	3.6	1
13099	PCB-1221	11104-28-2	19	U	19	5.6	1
13099	PCB-1232	11141-16-5	19	U	19	4.5	1
13099	PCB-1242	53469-21-9	19	U	19	4.5	1
13099	PCB-1248	12672-29-6	19	U	19	3.6	1
13099	PCB-1254	11097-69-1	19	U	19	4.8	1
13099	PCB-1260	11096-82-5	19	U	19	4.3	1
13099	PCB-1262	37324-23-5	19	U	19	3.6	1
13099	PCB-1268	11100-14-4	19	U	19	3.6	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.5	U	5.5	2.2	1
12952	EFH (C15-C20)	n.a.	5.5	U	5.5	2.2	1
12952	EFH (C21-C30)	n.a.	5.5	U	5.5	2.2	1
12952	EFH (C30-C40)	n.a.	11	U	11	4.4	1
12952	EFH (C8-C11)	n.a.	5.5	U	5.5	2.2	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045D	n.a.	8.04		0.0100	0.0100	1
	The pH was measured in water at 20.4 C.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	8.3		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-510-NBZ-SB-4.0-5.0 Soil
SSFL NBZ

LL Sample # SW 7300114
LL Group # 1438204
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/03/2013 14:45 by KL

Submitted: 12/04/2013 09:35
Reported: 12/30/2013 09:52

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51045 SDG#: PH138-16

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	1.06 U	1.06	0.0605	1
11031	12378-PeCDD	40321-76-4	5.31 U	5.31	0.0395	1
11031	123478-HxCDD	39227-28-6	0.0542 JBQ	5.31	0.0317	1
11031	123678-HxCDD	57653-85-7	0.0635 JBQ	5.31	0.0356	1
11031	123789-HxCDD	19408-74-3	5.31 U	5.31	0.0294	1
11031	1234678-HpCDD	35822-46-9	0.283 JB	5.31	0.0327	1
11031	OCDD	3268-87-9	1.28 JB	10.6	0.0333	1
11031	2378-TCDF	51207-31-9	1.06 U	1.06	0.0419	1
11031	12378-PeCDF	57117-41-6	0.0805 JBQ	5.31	0.0229	1
11031	23478-PeCDF	57117-31-4	0.0357 JBQ	5.31	0.0214	1
11031	123478-HxCDF	70648-26-9	0.0598 JBQ	5.31	0.0249	1
11031	123678-HxCDF	57117-44-9	5.31 U	5.31	0.0226	1
11031	123789-HxCDF	72918-21-9	0.0810 JBQ	5.31	0.0280	1
11031	234678-HxCDF	60851-34-5	0.0507 JB	5.31	0.0237	1
11031	1234678-HpCDF	67562-39-4	0.0670 JBQ	5.31	0.0123	1
11031	1234789-HpCDF	55673-89-7	0.0591 JB	5.31	0.0176	1
11031	OCDF	39001-02-0	0.242 JBQ	10.6	0.0413	1
D/F Toxic Equivalents	**EPA 1613B**		ng/kg	ng/kg	ng/kg	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.00883			1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	58	25 - 164
13C12-12378-PeCDD	56	25 - 181
13C12-123478-HxCDD	71	32 - 141
13C12-123678-HxCDD	66	28 - 130
13C12-123789-HxCDD	73	28 - 130
13C12-1234678-HpCDD	77	23 - 140
13C12-OCDD	76	17 - 157
13C12-2378-TCDF	55	24 - 169
13C12-12378-PeCDF	55	24 - 185
13C12-23478-PeCDF	54	21 - 178
13C12-123478-HxCDF	63	26 - 152
13C12-123678-HxCDF	68	26 - 123
13C12-234678-HxCDF	65	28 - 136
13C12-123789-HxCDF	62	29 - 147
13C12-1234678-HpCDF	84	28 - 143
13C12-1234789-HpCDF	67	26 - 138
13C12-OCDF	65	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column

*=This limit was used in the evaluation of the final result

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Lancaster Laboratories
Environmental

Analysis Report

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Sample Description: SL-510-NBZ-SB-4.0-5.0 Soil
SSFL NBZ

LL Sample # SW 7300114
LL Group # 1438204
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/03/2013 14:45 by KL

Submitted: 12/04/2013 09:35
Reported: 12/30/2013 09:52

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51045 SDG#: PH138-16

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

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Lancaster Laboratories Environmental
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Analysis Report

Sample Description: SL-510-NBZ-SB-4.0-5.0 Soil
SSFL NBZ

LL Sample # SW 7300114
LL Group # 1438204
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/03/2013 14:45 by KL

Submitted: 12/04/2013 09:35
Reported: 12/30/2013 09:52

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51045 SDG#: PH138-16

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13344SLD026	12/27/2013 09:28	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	13344SLD026	12/10/2013 17:45	Nicholas W Shroyer	1
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	13339A16A	12/06/2013 04:05	Laura M Krieger	25.35
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201333833331	12/04/2013 14:34	Mitchell R Washel	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201333833331	12/04/2013 14:34	Mitchell R Washel	n.a.
10590	20a Pesticides by EPA 8081B	SW-846 8081B	1	133470015A	12/16/2013 22:08	Jamie L Brillhart	1
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	133440006A	12/11/2013 12:27	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	133440006A	12/10/2013 16:00	JoElla L Rice	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	133470015A	12/13/2013 17:50	Sally L Appleyard	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	133440025A	12/12/2013 04:25	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	133440025A	12/11/2013 08:30	Olivia Arosemena	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13346001	12/14/2013 13:26	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13346001	12/12/2013 10:30	Chin F Ly	1
00394	15a pH by 9045D	SW-846 9045D modified	1	13338039402A	12/04/2013 11:00	Carolyn M Mastropietro	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13345162401B	12/11/2013 22:37	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: EB-120313 Water
SSFL NBZ

LL Sample # WW 7300115
LL Group # 1438204
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/03/2013 15:00 by PH

Submitted: 12/04/2013 09:35
Reported: 12/30/2013 09:52

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

EB138 SDG#: PH138-17EB*

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/l**		**ug/l**	**ug/l**	
12971	Acenaphthene	83-32-9	0.050	U	0.050	0.010	1
12971	Acenaphthylene	208-96-8	0.050	U	0.050	0.010	1
12971	Anthracene	120-12-7	0.050	U	0.050	0.010	1
12971	Benzo(a)anthracene	56-55-3	0.050	U	0.050	0.010	1
12971	Benzo(a)pyrene	50-32-8	0.050	U	0.050	0.010	1
12971	Benzo(b)fluoranthene	205-99-2	0.012	J	0.050	0.010	1
12971	Benzo(e)pyrene	192-97-2	0.050	U	0.050	0.010	1
12971	Benzo(g,h,i)perylene	191-24-2	0.059		0.050	0.010	1
12971	Benzo(k)fluoranthene	207-08-9	0.011	J	0.050	0.010	1
12971	Butylbenzylphthalate	85-68-7	1.0	U	1.0	0.050	1
12971	Di-n-butylphthalate	84-74-2	0.18	J	1.0	0.050	1
12971	Chrysene	218-01-9	0.050	U	0.050	0.010	1
12971	Dibenz(a,h)anthracene	53-70-3	0.059		0.050	0.010	1
12971	Diethylphthalate	84-66-2	0.49	J	1.0	0.050	1
12971	Dimethylphthalate	131-11-3	1.0	U	1.0	0.050	1
12971	Bis(2-Ethylhexyl)phthalate	117-81-7	0.13	J	1.0	0.050	1
12971	Fluoranthene	206-44-0	0.050	U	0.050	0.010	1
12971	Fluorene	86-73-7	0.050	U	0.050	0.010	1
12971	Indeno(1,2,3-cd)pyrene	193-39-5	0.054		0.050	0.010	1
12971	1-Methylnaphthalene	90-12-0	0.050	U	0.050	0.010	1
12971	2-Methylnaphthalene	91-57-6	0.050	U	0.050	0.010	1
12971	Naphthalene	91-20-3	0.050	U	0.050	0.030	1
12971	N-Nitrosodimethylamine	62-75-9	0.050	U	0.050	0.010	1
12971	Di-n-octylphthalate	117-84-0	1.0	U	1.0	0.050	1
12971	Phenanthrene	85-01-8	0.050	U	0.050	0.030	1
12971	Pyrene	129-00-0	0.050	U	0.050	0.010	1

The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. Sufficient sample was not available to repeat the analysis.

Target analytes were detected in the method blank associated with the samples as noted on the QC Summary. Since the result is within the acceptance range allowed by the method, the data is reported.

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12971	7b SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13340WAI026	12/10/2013 17:03	Chad A Moline	1
10466	BNA Water Extraction SIM	SW-846 3510C	1	13340WAI026	12/08/2013 07:30	Nicholas W Shroyer	1

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1438204
Reported: 12/30/13 at 09:52 AM

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 13340WAI026	Sample number(s): 7300115									
Acenaphthene	0.050	U	0.050	0.010	ug/l	107	107	77-118	1	30
Acenaphthylene	0.050	U	0.050	0.010	ug/l	113	114	80-123	1	30
Anthracene	0.050	U	0.050	0.010	ug/l	108	108	78-123	0	30
Benzo(a)anthracene	0.050	U	0.050	0.010	ug/l	115	111	73-127	3	30
Benzo(a)pyrene	0.050	U	0.050	0.010	ug/l	104	106	72-120	2	30
Benzo(b)fluoranthene	0.050	U	0.050	0.010	ug/l	118	117	79-136	1	30
Benzo(e)pyrene	0.050	U	0.050	0.010	ug/l	102	101	70-130	2	30
Benzo(g,h,i)perylene	0.050	U	0.050	0.010	ug/l	112	106	64-130	6	30
Benzo(k)fluoranthene	0.050	U	0.050	0.010	ug/l	105	107	73-131	3	30
Butylbenzylphthalate	1.0	U	1.0	0.050	ug/l	106	110	40-138	4	30
Di-n-butylphthalate	1.0	U	1.0	0.050	ug/l	113	115	64-141	2	30
Chrysene	0.050	U	0.050	0.010	ug/l	96	105	76-125	9	30
Dibenz(a,h)anthracene	0.050	U	0.050	0.010	ug/l	107	108	58-131	1	30
Diethylphthalate	1.0	U	1.0	0.050	ug/l	113	114	64-128	1	30
Dimethylphthalate	1.0	U	1.0	0.050	ug/l	108	112	23-139	4	30
Bis(2-Ethylhexyl)phthalate	0.079	J	1.0	0.050	ug/l	238*	110	70-143	74*	30
Fluoranthene	0.050	U	0.050	0.010	ug/l	104	104	79-124	1	30
Fluorene	0.050	U	0.050	0.010	ug/l	105	106	74-115	1	30
Indeno(1,2,3-cd)pyrene	0.050	U	0.050	0.010	ug/l	110	106	62-130	4	30
1-Methylnaphthalene	0.050	U	0.050	0.010	ug/l	108	108	80-126	0	30
2-Methylnaphthalene	0.050	U	0.050	0.010	ug/l	106	107	81-124	1	30
Naphthalene	0.050	U	0.050	0.030	ug/l	106	106	75-120	0	30
N-Nitrosodimethylamine	0.050	U	0.050	0.010	ug/l	66	67	36-120	1	30
Di-n-octylphthalate	1.0	U	1.0	0.050	ug/l	87	96	57-145	10	30
Phenanthrene	0.050	U	0.050	0.030	ug/l	102	104	75-120	2	30
Pyrene	0.050	U	0.050	0.010	ug/l	110	109	71-130	1	30
Batch number: 13344SLD026	Sample number(s): 7300107-7300110,7300112-7300114									
Acenaphthene	1.7	U	1.7	0.67	ug/kg	96		77-116		
Acenaphthylene	1.7	U	1.7	0.33	ug/kg	99		78-120		
Anthracene	1.7	U	1.7	0.33	ug/kg	100		80-116		
Benzo(a)anthracene	1.7	U	1.7	0.67	ug/kg	112		83-119		
Benzo(a)pyrene	1.7	U	1.7	0.67	ug/kg	107		80-122		
Benzo(b)fluoranthene	1.7	U	1.7	0.67	ug/kg	124		82-135		
Benzo(e)pyrene	17	U	17.	3.3	ug/kg	99		81-110		
Benzo(g,h,i)perylene	1.7	U	1.7	0.67	ug/kg	108		79-121		
Benzo(k)fluoranthene	1.7	U	1.7	0.67	ug/kg	101		79-123		
Butylbenzylphthalate	18	U	18.	6.0	ug/kg	112		77-123		
Di-n-butylphthalate	18	U	18.	6.0	ug/kg	101		78-125		
Chrysene	1.7	U	1.7	0.33	ug/kg	111		84-113		
Dibenz(a,h)anthracene	1.7	U	1.7	0.67	ug/kg	102		78-124		
Diethylphthalate	18	U	18.	6.0	ug/kg	102		77-130		
Dimethylphthalate	18	U	18.	6.0	ug/kg	104		85-122		

*- Outside of specification
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(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1438204
Reported: 12/30/13 at 09:52 AM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Bis(2-Ethylhexyl)phthalate	18	U	18.	6.0	ug/kg	111		79-121		
Fluoranthene	1.7	U	1.7	0.67	ug/kg	102		85-116		
Fluorene	1.7	U	1.7	0.67	ug/kg	102		81-126		
Indeno(1,2,3-cd)pyrene	1.7	U	1.7	0.67	ug/kg	107		77-124		
1-Methylnaphthalene	1.7	U	1.7	0.67	ug/kg	111		78-119		
2-Methylnaphthalene	1.7	U	1.7	0.67	ug/kg	112		78-121		
Naphthalene	1.7	U	1.7	0.67	ug/kg	101		79-113		
N-Nitrosodimethylamine	1.7	U	1.7	0.67	ug/kg	100		71-124		
Di-n-octylphthalate	18	U	18.	6.0	ug/kg	114		76-131		
Phenanthrene	1.7	U	1.7	0.67	ug/kg	97		72-110		
Pyrene	1.7	U	1.7	0.67	ug/kg	115*		79-112		
Batch number: 13339A16A	Sample number(s): 7300095,7300097,7300108-7300110,7300112,7300114									
11a TPH by EPA 8015B GRO	1.0	U	1.0	0.2	mg/kg	99		67-119		
Batch number: 13339A94A	Sample number(s): 7300106									
TPH-GRO S.CA water C5-C12	50	U	50.	20	ug/l	113	114	75-135	1	30
Batch number: 133450034A	Sample number(s): 7300105									
2,4-D	36	U	36.	12	ug/kg	136*		59-122		
Dalapon	90	U	90.	44	ug/kg	71		25-100		
2,4-DB	17	U	17.	6.2	ug/kg	135*		54-131		
Dicamba	12	U	12.	4.0	ug/kg	102		55-138		
Dinoseb	24	U	24.	9.0	ug/kg	13		10-56		
2,4-DP (Dichlorprop)	17	U	17.	9.0	ug/kg	153		65-158		
MCPA	2,500	U	2,500.	760	ug/kg	97		56-133		
MCPP (Mecoprop)	2,500	U	2,500.	750	ug/kg	96		54-134		
2,4,5-T	1.7	U	1.7	0.82	ug/kg	112		58-135		
2,4,5-TP	1.7	U	1.7	0.75	ug/kg	125		63-130		
Batch number: 133440006A	Sample number(s): 7300107-7300110,7300112-7300114									
Aroclor 5432	33	U	33.	10	ug/kg					
Aroclor 5442	33	U	33.	10	ug/kg	86	90	36-106	4	30
Aroclor 5460	33	U	33.	10	ug/kg					
PCB-1016	17	U	17.	3.3	ug/kg	106		82-116		
PCB-1221	17	U	17.	5.1	ug/kg					
PCB-1232	17	U	17.	4.1	ug/kg					
PCB-1242	17	U	17.	4.1	ug/kg					
PCB-1248	17	U	17.	3.3	ug/kg					
PCB-1254	17	U	17.	4.4	ug/kg					
PCB-1260	17	U	17.	3.9	ug/kg	115		84-125		
PCB-1262	17	U	17.	3.3	ug/kg					
PCB-1268	17	U	17.	3.3	ug/kg					
Batch number: 133440020A	Sample number(s): 7300094-7300104									
Aldrin	0.83	U	0.83	0.17	ug/kg	107		60-118		
Alpha BHC	0.83	U	0.83	0.17	ug/kg	109		62-128		
Beta BHC	1.9	U	1.9	0.96	ug/kg	108		69-121		
Gamma BHC - Lindane	0.83	U	0.83	0.17	ug/kg	117		64-130		
Chlordane	17	U	17.	4.0	ug/kg					
p,p-DDD	1.7	U	1.7	0.33	ug/kg	106		69-141		
p,p-DDE	1.7	U	1.7	0.33	ug/kg	107		69-130		
p,p-DDT	1.7	U	1.7	0.35	ug/kg	118		64-139		
Delta BHC	0.83	U	0.83	0.45	ug/kg	116		51-141		

*- Outside of specification
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(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1438204
Reported: 12/30/13 at 09:52 AM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Dieldrin	1.7	U	1.7	0.33	ug/kg	110		73-135		
Endosulfan I	0.83	U	0.83	0.22	ug/kg	93		64-130		
Endosulfan II	1.7	U	1.7	0.33	ug/kg	101		68-128		
Endosulfan Sulfate	1.7	U	1.7	0.33	ug/kg	115		71-132		
Endrin	1.7	U	1.7	0.33	ug/kg	106		70-132		
Endrin Aldehyde	1.7	U	1.7	0.33	ug/kg	99		60-120		
Endrin Ketone	1.8	U	1.8	0.60	ug/kg	108		74-127		
Heptachlor	0.83	U	0.83	0.17	ug/kg	103		62-127		
Heptachlor Epoxide	0.83	U	0.83	0.17	ug/kg	111		69-125		
Methoxychlor	6.7	U	6.7	1.7	ug/kg	111		67-136		
Mirex	1.7	U	1.7	0.35	ug/kg					
Toxaphene	33	U	33.	14	ug/kg					
Batch number: 133470015A	Sample number(s): 7300107-7300110,7300112-7300114									
Aldrin	0.83	U	0.83	0.17	ug/kg	103		60-118		
Alpha BHC	0.83	U	0.83	0.17	ug/kg	109		62-128		
Beta BHC	1.9	U	1.9	0.96	ug/kg	107		69-121		
Gamma BHC - Lindane	0.83	U	0.83	0.17	ug/kg	114		64-130		
Chlordane	17	U	17.	4.0	ug/kg					
p,p-DDD	1.7	U	1.7	0.33	ug/kg	109		69-141		
p,p-DDE	1.7	U	1.7	0.33	ug/kg	115		69-130		
p,p-DDT	1.7	U	1.7	0.35	ug/kg	114		64-139		
Delta BHC	0.83	U	0.83	0.45	ug/kg	110		51-141		
Dieldrin	1.7	U	1.7	0.33	ug/kg	103		73-135		
Endosulfan I	0.83	U	0.83	0.22	ug/kg	87		64-130		
Endosulfan II	1.7	U	1.7	0.33	ug/kg	93		68-128		
Endosulfan Sulfate	1.7	U	1.7	0.33	ug/kg	109		71-132		
Endrin	1.7	U	1.7	0.33	ug/kg	101		70-132		
Endrin Aldehyde	1.7	U	1.7	0.33	ug/kg	97		60-120		
Endrin Ketone	1.8	U	1.8	0.60	ug/kg	103		74-127		
Heptachlor	0.83	U	0.83	0.17	ug/kg	101		62-127		
Heptachlor Epoxide	0.83	U	0.83	0.17	ug/kg	105		69-125		
Methoxychlor	6.7	U	6.7	1.7	ug/kg	107		67-136		
Mirex	1.7	U	1.7	0.35	ug/kg					
Toxaphene	33	U	33.	14	ug/kg					
Batch number: 133440024A	Sample number(s): 7300094-7300105,7300107									
EFH (C12-C14)	5.0	U	5.0	2.0	mg/kg	105		76-115		
EFH (C15-C20)	5.0	U	5.0	2.0	mg/kg	111		78-127		
EFH (C21-C30)	5.0	U	5.0	2.0	mg/kg	108		77-127		
EFH (C30-C40)	10	U	10.	4.0	mg/kg	69		44-134		
EFH (C8-C11)	5.0	U	5.0	2.0	mg/kg	90		60-115		
Batch number: 133440025A	Sample number(s): 7300108-7300110,7300112-7300114									
EFH (C12-C14)	5.0	U	5.0	2.0	mg/kg	91		76-115		
EFH (C15-C20)	5.0	U	5.0	2.0	mg/kg	94		78-127		
EFH (C21-C30)	5.0	U	5.0	2.0	mg/kg	94		77-127		
EFH (C30-C40)	10	U	10.	4.0	mg/kg	81		44-134		
EFH (C8-C11)	5.0	U	5.0	2.0	mg/kg	75		60-115		
Batch number: 13338039402A	Sample number(s): 7300107-7300108,7300111-7300114									
15a pH by 9045D						100		95-105		
Batch number: 13345162401A	Sample number(s): 7300094-7300105,7300107									
14a Moisture Content by 160.3						100		80-120		
14a Moisture Content by 160.3						100		80-120		

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1438204
Reported: 12/30/13 at 09:52 AM

Analysis Name	Blank Result	Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
14a Moisture Content by 160.3					100		80-120		
Batch number: 13345162401B	Sample number(s): 7300108-7300114								
14a Moisture Content by 160.3					100		80-120		
14a Moisture Content by 160.3					100		80-120		
14a Moisture Content by 160.3					100		80-120		

Analysis Name	Blank Result	Blank MRL**	Blank EDL	Report Units	OPR %REC	OPRD %REC	OPR/OPRD Limits	RPD	RPD Max
Batch number: 13346001	Sample number(s): 7300107-7300110,7300112-7300114								
2378-TCDD	0.116 J	1.00	0.0782	ng/kg	100		67-158		
12378-PeCDD	5.00 U	5.00	0.0439	ng/kg	100		70-142		
123478-HxCDD	0.0405 J	5.00	0.0347	ng/kg	101		70-164		
123678-HxCDD	0.0758 J	5.00	0.0380	ng/kg	102		76-134		
123789-HxCDD	0.0456 J	5.00	0.0353	ng/kg	101		64-162		
1234678-HpCDD	0.296 J	5.00	0.0599	ng/kg	101		70-140		
OCDD	0.976 J	10.0	0.0361	ng/kg	99		78-144		
2378-TCDF	1.00 U	1.00	0.0579	ng/kg	99		75-158		
12378-PeCDF	0.0841 J	5.00	0.0240	ng/kg	102		80-134		
23478-PeCDF	0.0874 J	5.00	0.0248	ng/kg	101		68-160		
123478-HxCDF	0.0878 J	5.00	0.0326	ng/kg	103		72-134		
123678-HxCDF	0.0448 J	5.00	0.0295	ng/kg	104		84-130		
123789-HxCDF	0.0998 J	5.00	0.0343	ng/kg	103		78-130		
234678-HxCDF	0.0919 J	5.00	0.0296	ng/kg	103		70-156		
1234678-HpCDF	0.121 J	5.00	0.0235	ng/kg	101		82-122		
1234789-HpCDF	0.413 J	5.00	0.0369	ng/kg	105		78-138		
OCDF	0.225 J	10.0	0.0449	ng/kg	100		63-170		
TEQ WHO 2005 - EDLx0.0	0.0408			ng/kg					

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 13344SLD026	Sample number(s): 7300107-7300110,7300112-7300114 UNSPK: 7300108								
Acenaphthene	99	96	48-127	3	30				
Acenaphthylene	101	99	49-121	2	30				
Anthracene	101	100	52-126	1	30				
Benzo(a)anthracene	113	111	44-143	1	30				
Benzo(a)pyrene	108	107	44-140	1	30				
Benzo(b)fluoranthene	112	110	26-142	2	30				
Benzo(e)pyrene	101	100	70-130	1	30				
Benzo(g,h,i)perylene	111	110	33-141	1	30				
Benzo(k)fluoranthene	114	115	54-142	1	30				
Butylbenzylphthalate	113	114	49-151	1	30				

*- Outside of specification
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(1) The result for one or both determinations was less than five times the LOQ / MRL.
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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1438204
Reported: 12/30/13 at 09:52 AM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Di-n-butylphthalate	103	102	52-147	1	30				
Chrysene	111	110	29-148	1	30				
Dibenz(a,h)anthracene	106	105	20-137	1	30				
Diethylphthalate	104	104	43-145	1	30				
Dimethylphthalate	107	104	58-129	2	30				
Bis(2-Ethylhexyl)phthalate	117	113	39-167	3	30				
Fluoranthene	104	102	40-148	2	30				
Fluorene	103	101	51-137	2	30				
Indeno(1,2,3-cd)pyrene	111	110	17-136	1	30				
1-Methylnaphthalene	113	111	50-131	2	30				
2-Methylnaphthalene	116	114	35-152	1	30				
Naphthalene	102	101	31-148	1	30				
N-Nitrosodimethylamine	100	101	48-113	1	30				
Di-n-octylphthalate	115	116	52-162	1	30				
Phenanthrene	101	99	29-142	2	30				
Pyrene	117	115	26-143	2	30				
Batch number: 13339A16A	Sample number(s): 7300095,7300097,7300108-7300110,7300112,7300114 UNSPK: 7300108								
11a TPH by EPA 8015B GRO	85	92	69-123	3	30				
Batch number: 133450034A	Sample number(s): 7300105 UNSPK: P306302								
2,4-D	142	151*	42-143	6	35				
Dalapon	62	57	16-98	8	50				
2,4-DB	144	152	10-179	5	50				
Dicamba	106	115	55-133	8	50				
Dinoseb	25	28	10-52	12	35				
2,4-DP (Dichlorprop)	154	161	32-171	4	50				
MCPA	101	110	23-169	9	50				
MCPP (Mecoprop)	95	97	24-164	2	50				
2,4,5-T	124	177*	12-172	35	35				
2,4,5-TP	128	131	10-142	2	35				
Batch number: 133440006A	Sample number(s): 7300107-7300110,7300112-7300114 UNSPK: 7300108								
PCB-1016	107	98	41-135	9	50				
PCB-1260	113	106	40-134	7	50				
Batch number: 133440020A	Sample number(s): 7300094-7300104 UNSPK: 7300098								
Aldrin	96	99	16-126	3	50				
Alpha BHC	102	103	14-140	1	50				
Beta BHC	97	102	42-133	5	50				
Gamma BHC - Lindane	102	108	30-137	5	50				
p,p-DDD	99	105	43-149	5	50				
p,p-DDE	111	119	35-152	7	50				
p,p-DDT	136	148	12-193	8	50				
Delta BHC	105	112	13-153	6	50				
Dieldrin	101	103	41-153	1	50				
Endosulfan I	83	86	26-146	4	50				
Endosulfan II	102	109	34-141	6	50				
Endosulfan Sulfate	102	106	10-181	3	50				
Endrin	101	104	30-152	3	50				
Endrin Aldehyde	86	91	23-138	6	50				
Endrin Ketone	93	98	30-148	4	50				

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1438204
Reported: 12/30/13 at 09:52 AM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Heptachlor	92	95	16-152	3	50				
Heptachlor Epoxide	110	114	33-144	3	50				
Methoxychlor	98	104	41-161	5	50				
Batch number: 133470015A	Sample number(s): 7300107-7300110,7300112-7300114 UNSPK: 7300108								
Aldrin	104	103	16-126	1	50				
Alpha BHC	108	111	14-140	3	50				
Beta BHC	106	107	42-133	1	50				
Gamma BHC - Lindane	114	117	30-137	2	50				
p,p-DDD	111	112	43-149	1	50				
p,p-DDE	114	116	35-152	2	50				
p,p-DDT	115	116	12-193	1	50				
Delta BHC	110	112	13-153	1	50				
Dieldrin	104	106	41-153	2	50				
Endosulfan I	88	90	26-146	1	50				
Endosulfan II	94	96	34-141	3	50				
Endosulfan Sulfate	111	111	10-181	0	50				
Endrin	102	104	30-152	2	50				
Endrin Aldehyde	96	98	23-138	2	50				
Endrin Ketone	103	103	30-148	0	50				
Heptachlor	101	101	16-152	0	50				
Heptachlor Epoxide	103	107	33-144	4	50				
Methoxychlor	108	109	41-161	1	50				
Batch number: 133440024A	Sample number(s): 7300094-7300105,7300107 UNSPK: 7300098								
EFH (C12-C14)	104	106	49-123	2	20				
EFH (C15-C20)	155*	115	49-123	30*	20				
EFH (C21-C30)	343*	111	49-123	102*	20				
EFH (C30-C40)	559*	103	49-123	138*	20				
EFH (C8-C11)	86	89	49-123	4	20				
Batch number: 133440025A	Sample number(s): 7300108-7300110,7300112-7300114 UNSPK: 7300108								
EFH (C12-C14)	83	84	49-123	1	20				
EFH (C15-C20)	87	88	49-123	1	20				
EFH (C21-C30)	87	88	49-123	1	20				
EFH (C30-C40)	75	67	49-123	12	20				
EFH (C8-C11)	70	70	49-123	0	20				
Batch number: 13338039402A	Sample number(s): 7300107-7300108,7300111-7300114 BKG: 7300108								
15a pH by 9045D						7.60	7.53	1	3
Batch number: 13345162401A	Sample number(s): 7300094-7300105,7300107 BKG: 7300098								
14a Moisture Content by 160.3						2.2	2.2	3	20
14a Moisture Content by 160.3						2.2	2.2	3	20
14a Moisture Content by 160.3						2.2	2.2	3	20
Batch number: 13345162401B	Sample number(s): 7300108-7300114 BKG: 7300108								
14a Moisture Content by 160.3						4.5	4.4	2	20
14a Moisture Content by 160.3						4.5	4.4	2	20
14a Moisture Content by 160.3						4.5	4.4	2	20
Batch number: 13346001	Sample number(s): 7300107-7300110,7300112-7300114 UNSPK: 7300108								

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1438204
Reported: 12/30/13 at 09:52 AM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
2378-TCDD	97	98	40-135	2	20				
12378-PeCDD	98	98	40-135	2	20				
123478-HxCDD	100	99	40-135	0	20				
123678-HxCDD	102	102	40-135	1	20				
123789-HxCDD	99	99	40-135	1	20				
1234678-HpCDD	100	100	40-135	1	20				
OCDD	97	98	40-135	2	20				
2378-TCDF	100	99	40-135	0	20				
12378-PeCDF	98	98	40-135	1	20				
23478-PeCDF	100	99	40-135	0	20				
123478-HxCDF	100	100	40-135	1	20				
123678-HxCDF	102	104	40-135	3	20				
123789-HxCDF	101	102	40-135	2	20				
234678-HxCDF	102	102	40-135	0	20				
1234678-HpCDF	100	101	40-135	2	20				
1234789-HpCDF	103	104	40-135	1	20				
OCDF	98	98	40-135	2	20				

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 7b SVOC SIM EPA 8270D
Batch number: 13340WAI026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
7300115	98	98	101
Blank	102	109	103
LCS	102	111	108
LCSD	101	108	106
Limits:	44-137	62-141	51-136

Analysis Name: 7a SVOC SIM EPA 8270D
Batch number: 13344SLD026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
7300107	86	87	105
7300108	79	81	98
7300109	85	86	105
7300110	85	87	104
7300112	87	88	107
7300113	82	83	102
7300114	77	78	95
Blank	87	90	107

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1438204
Reported: 12/30/13 at 09:52 AM

Surrogate Quality Control

LCS	83	85	103
MS	85	86	105
MSD	85	87	104
Limits:	54-129	59-125	61-125

Analysis Name: 11a TPH by EPA 8015B GRO
Batch number: 13339A16A

	Trifluorotoluene-F
7300095	96
7300097	82
7300108	96
7300109	87
7300110	77
7300112	88
7300114	87
Blank	100
LCS	110
MS	87
MSD	77
Limits:	50-142

Analysis Name: 11b TPH by EPA 8015B GRO
Batch number: 13339A94A

	Trifluorotoluene-F
7300106	87
Blank	87
LCS	92
LCSD	92
Limits:	63-135

Analysis Name: 19a PCBs and PCTs 8082A
Batch number: 133440006A

	Tetrachloro-m-xylene	Decachlorobiphenyl
7300107	109	106
7300108	101	98
7300109	121*	114
7300110	107	113
7300112	109	105
7300113	88	87
7300114	95	91
Blank	121*	117
LCS	117	117
LCSD	116	115
MS	121*	114
MSD	107	113
Limits:	45-120	45-120

Analysis Name: 20a Pesticides by EPA 8081B
Batch number: 133440020A

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1438204
Reported: 12/30/13 at 09:52 AM

Surrogate Quality Control

	Tetrachloro-m-xylene	Decachlorobiphenyl
7300094	91	96
7300095	102	106
7300096	94	105
7300097	99	109
7300098	104	117
7300099	89	104
7300100	96	112
7300101	105	115
7300102	94	104
7300103	90	103
7300104	89	107
Blank	101	112
LCS	105	118
MS	89	104
MSD	96	112
Limits:	50-130	20-120

Analysis Name: 21a Herbicides by EPA 8151A
Batch number: 133450034A

	2,4-Dichlorophenylacetic acid
7300105	89
Blank	82
LCS	98
MS	99
MSD	105
Limits:	50-150

Analysis Name: 20a Pesticides by EPA 8081B
Batch number: 133470015A

	Tetrachloro-m-xylene	Decachlorobiphenyl
7300107	95	107
7300108	96	109
7300109	101	115
7300110	107	116
7300112	100	111
7300113	89	102
7300114	92	106
Blank	100	111
LCS	109	120
MS	101	115
MSD	107	116
Limits:	50-130	20-120

Analysis Name: 10a TPH by EPA 8015B (DRO)
Batch number: 133440024A

	Chlorobenzene	Orthoterphenyl
7300094	94	96

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1438204
Reported: 12/30/13 at 09:52 AM

Surrogate Quality Control

7300095	89	87
7300096	93	94
7300097	105	105
7300098	96	97
7300099	99	75
7300100	103	97
7300101	92	94
7300102	94	96
7300103	90	91
7300104	97	97
7300105	96	97
7300107	99	99
Blank	100	95
LCS	103	98
MS	99	75
MSD	103	97
Limits:	37-125	66-123

Analysis Name: 10a TPH by EPA 8015B (DRO)
Batch number: 133440025A

	Chlorobenzene	Orthoterphenyl
7300108	87	86
7300109	82	82
7300110	82	82
7300112	84	82
7300113	76	77
7300114	79	78
Blank	83	82
LCS	88	88
MS	82	82
MSD	82	82
Limits:	37-125	66-123

Analysis Name: 23a Dioxin/Furan by EPA 1613B
Batch number: 13346001

	13C12-2378-TCDD	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF	13C12-234678-HxCDF	13C12-123789-HxCDF
7300107	62	62	65	72	70	67
7300108	63	63	71	76	72	68
7300109	60	57	67	71	67	64
7300110	60	65	71	74	73	72
7300112	72	70	77	81	78	74
7300113	62	60	68	72	70	66
7300114	58	54	63	68	65	62
Blank	72	72	74	81	76	72
MS	60	57	67	71	67	64
MSD	60	65	71	74	73	72
OPR	58	63	65	71	68	65
Limits:	25-164	21-178	26-152	26-123	28-136	29-147

	13C12-1234678-HpCDF	13C12-1234789-HpCDF	13C12-OCDF	13C12-12378-PeCDD	13C12-123478-HxCDD	13C12-123678-HxCDD

*- Outside of specification
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(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1438204
Reported: 12/30/13 at 09:52 AM

Surrogate Quality Control

7300107	98	72	75	72	79	79
7300108	98	72	75	70	81	81
7300109	87	65	66	62	75	74
7300110	95	78	81	71	81	81
7300112	92	75	74	75	86	87
7300113	84	67	66	65	78	77
7300114	84	67	65	56	71	66
Blank	104	79	83	82	89	89
MS	87	65	66	62	75	74
MSD	95	78	81	71	81	81
OPR	94	71	75	70	77	78
Limits:	28-143	26-138	17-157	25-181	32-141	28-130

	13C12-123789-HxCDD	13C12-1234678-HpCDD	13C12-OCDD	13C12-2378-TCDF	13C12-12378-PeCDF
7300107	80	89	96	55	65
7300108	82	88	95	56	66
7300109	74	78	82	54	60
7300110	82	90	95	53	66
7300112	86	87	88	67	73
7300113	77	79	79	56	63
7300114	73	77	76	55	55
Blank	89	97	105	63	77
MS	74	78	82	54	60
MSD	82	90	95	53	66
OPR	77	86	96	53	63
Limits:	28-130	23-140	17-157	24-169	24-185

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

SSFL Phase 3 Chain of Custody

13013 1438204 7300094-115

CDM Smith

DateShipped: 12/3/2013
CarrierName: FedEx
AirbillNo: 7973 0122 0162

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20131203-01
Cooler #: 1
Lab: Lancaster
Lab Phone: 717-556-7259
Lab Address: 2425 New Holland Pike, Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Total Nitrogen ASTM D5373	TOC ASTM D5310	Grain Size ASTM 2488-09a	Other Analysis/Notes
SL-502-NBZ-SB-0.0-0.5	12/3/13 09:20	SO	None	1 - SS-Sleeve	10 day																	X				X														
SL-502-NBZ-SB-4.0-5.0	12/3/13 09:35	SO	None	1 - 16 oz glass	10 day																	X				X														
SL-502-NBZ-SB-4.0-5.0	12/3/13 09:35	SO	None	2 - Encore	10 day																				X															
SL-503-NBZ-SB-0.0-0.5	12/3/13 10:00	SO	None	1 - SS-Sleeve	10 day																	X				X														
SL-503-NBZ-SB-2.0-3.0	12/3/13 10:20	SO	None	1 - 16 oz glass	10 day																	X				X														
SL-503-NBZ-SB-2.0-3.0	12/3/13 10:20	SO	None	2 - Encore	10 day																																			
SL-504-NBZ-SB-0.0-0.5MS	12/3/13 10:45	SO	None	2 - SS-Sleeve	10 day																	X				X														
SL-804-NBZ-SB-0.0-0.5	12/3/13 10:55	SO	None	1 - SS-Sleeve	10 day																	X				X														
SL-530-NBZ-SB-0.0-0.5	12/3/13 09:40	SO	None	1 - SS-Sleeve	10 day																	X				X														
SL-531-NBZ-SB-0.0-0.5	12/3/13 13:50	SO	None	1 - SS-Sleeve	10 day																	X				X														
SL-532-NBZ-SB-0.0-0.5	12/3/13 10:20	SO	None	1 - SS-Sleeve	10 day																	X				X														
SL-533-NBZ-SB-0.0-0.5	12/3/13 13:05	SO	None	1 - SS-Sleeve	10 day																X					X														
SL-509-NBZ-SB-2.5-3.5MS	12/3/13 13:30	SO	None	6 - Encore	10 day																				X															
SL-809-NBZ-SB-2.5-3.5	12/3/13 13:40	SO	None	2 - Encore	10 day																				X															
SL-510-NBZ-SB-4.0-5.0	12/3/13 14:45	SO	None	2 - Encore	10 day																				X															
TB-120313	12/3/13 08:00	WQ	HCl	3 - 40 mL Vial	10 day																				X															

Special Instructions:

Sampler:

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
	12/3/13	1600									

Brianna Barker 12.4.13 935

COC Rev 3

COC: 20131203-01, Page 1 of 1

SSFL Phase 3 Chain of Custody

13013 1438204 7300094-115

CDM Smith

DateShipped: 12/3/2013
CarrierName: FedEx
AirbillNo: 7973 0122 0162

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20131203-03
Cooler #: 2
Lab: Lancaster
Lab Phone: 717-556-7259
Lab Address: 2425 New Holland Pike
Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Total Nitrogen ASTM D5373	TOC ASTM D5310	Grain Size ASTM 2488-09a	Other Analysis/Notes
SL-509-NBZ-SB-0.0-0.5	12/3/13 13:15	SO	None	2 - SS-Sleeve	10 day							X		X	X							X				X														
SL-509-NBZ-SB-0.0-0.5	12/3/13 13:15	SO	None	1 - 4 oz glass	10 day													X																						
SL-509-NBZ-SB-2.5-3.5MS	12/3/13 13:30	SO	None	6 - 16 oz glass	10 day							X		X	X			X				X				X														
SL-809-NBZ-SB-2.5-3.5	12/3/13 13:40	SO	None	2 - 16 oz glass	10 day							X		X	X			X				X				X														
SL-510-NBZ-SB-0.0-0.5	12/3/13 14:30	SO	None	1 - 4 oz glass	10 day													X																						
SL-510-NBZ-SB-0.0-0.5	12/3/13 14:30	SO	None	2 - SS-Sleeve	10 day							X		X	X							X				X														
SL-510-NBZ-SB-4.0-5.0	12/3/13 14:45	SO	None	2 - 16 oz glass	10 day							X		X	X			X				X				X														

Special Instructions:

Sampler:

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
	12/3/13	1601									
									Brenda Dorsey	12.4.13	935

SSFL Phase 3 Chain of Custody

13013 1438204 7300094-115

CDM Smith

DateShipped: 12/3/2013
CarrierName: FedEx
AirbillNo: 7973 0122 0162

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20131203-02
Cooler #: 1
Lab: Lancaster
Lab Phone: 717-556-7259
Lab Address: 2425 New Holland Pike, Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Total Nitrogen ASTM D5373	TOC ASTM D5310	Grain Size ASTM 2488-09a	Other Analysis/Notes
EB-120313	12/3/13 15:00	WQ	None	1 - 250 mL Amber	10 day								X																											

Special Instructions:

Sampler: Pamela Hartman

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
[signature]	12/3/13	1600									
									Bruce Barch	12.4.13	935

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Environmental Sample Administration Receipt Documentation Log

1438204

Client/Project: CDM

Date of Receipt: 12.4.13

Time of Receipt: 935

Source Code: 50-1

Shipping Container Sealed: (YES) NO

Custody Seal Present * : (YES) NO

* Custody seal was intact unless otherwise noted in the discrepancy section

Package: (Chilled) Not Chilled

Temperature of Shipping Containers							
Cooler #	Thermometer ID	Temperature (°C)	Temp Bottle (TB) or Surface Temp (ST)	Wet Ice (WI) or Dry Ice (DI) or Ice Packs (IP)	Ice Present? Y/N	Loose (L) Bagged Ice (B) or NA	Comments
1	DT146	1.5	TB	WI	Y	B	
2	↓	3.4	↓	↓	↓	↓	
3							
4							
5							
6							

Number of Trip Blanks received NOT listed on chain of custody: 0

Paperwork Discrepancy/Unpacking Problems:

Unpacker Signature/Emp#: Brenely Barely 2299 **Date/Time:** 12.4.13 1029

Issued by Dept. 6042 Management

2174.06

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Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	**BMQL**	Below Minimum Quantitation Level
N.D.	none detected	**MPN**	Most Probable Number
TNTC	Too Numerous To Count	**CP Units**	cobalt-chloroplatinate units
IU	International Units	**NTU**	nephelometric turbidity units
umhos/cm	micromhos/cm	**ng**	nanogram(s)
C	degrees Celsius	**F**	degrees Fahrenheit
meq	milliequivalents	**lb.**	pound(s)
g	gram(s)	**kg**	kilogram(s)
µg	microgram(s)	**mg**	milligram(s)
mL	milliliter(s)	**L**	liter(s)
m3	cubic meter(s)	**µL**	microliter(s)
		pg/L	picogram/liter

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Data Qualifiers:

C – result confirmed by reanalysis.

J - estimated value – The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	**B**	Value is <CRDL, but ≥IDL
B	Analyte was also detected in the blank	**E**	Estimated due to interference
C	Pesticide result confirmed by GC/MS	**M**	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	**N**	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	**S**	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	**U**	Compound was not detected
P	Concentration difference between primary and confirmation columns >25%	**W**	Post digestion spike out of control limits
U	Compound was not detected	*****	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	**+**	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as “analyze immediately” are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

December 31, 2013

Project: SSFL Phase 3 Sampling

Submittal Date: 12/05/2013
Group Number: 1438596
SDG: PH139
PO Number: 1204-002-001-AL
State of Sample Origin: CA

Client Sample Description	Lancaster Labs (LL) #
SL-506-NBZ-SB-0.0-0.5 Soil	7301917
SL-507-NBZ-SB-0.0-0.5 Soil	7301918
SL-507-NBZ-SB-3.5-4.5 Soil	7301919
SL-508-NBZ-SB-0.0-0.5 Soil	7301920
SL-508-NBZ-SB-4.0-5.0 Soil	7301921
SL-546-NBZ-SB-0.0-0.5 Soil	7301922
SL-547-NBZ-SB-0.0-0.5 Soil	7301923
SL-549-NBZ-SB-0.0-0.5 Soil	7301924
TB-120413 Water	7301925
SL-545-NBZ-SB-0.0-0.5 Soil	7301926
SL-545-NBZ-SB-0.0-0.5MS Soil	7301927
SL-545-NBZ-SB-0.0-0.5MSD Soil	7301928
SL-545-NBZ-SB-0.0-0.5DUP Soil	7301929
SL-845-NBZ-SB-0.0-0.5 Soil	7301930
SL-511-NBZ-SB-0.0-0.5 Soil	7301931
SL-511-NBZ-SB-2.5-3.5 Soil	7301932
SL-548-NBZ-SB-0.0-0.5 Soil	7301933

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO Eurofins Lancaster Labs Env Attn: Nicole Maljovec

Respectfully Submitted,

Nicole L. Maljovec
Principal Specialist Group Leader

(717) 556-7259

eurofins | Lancaster Laboratories Environmental

Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: SL-506-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 NBZ

LL Sample # SW 7301917
LL Group # 1438596
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/04/2013 10:30 by KE

Submitted: 12/05/2013 09:50
Reported: 12/31/2013 07:50

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

50600 SDG#: PH139-01

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs	**SW-846 8081B**		**ug/kg**		**ug/kg**	**ug/kg**	
10590	Aldrin	309-00-2	0.87	U	0.87	0.18	1
10590	Alpha BHC	319-84-6	0.87	U	0.87	0.18	1
10590	Beta BHC	319-85-7	2.0	U	2.0	1.0	1
10590	Gamma BHC - Lindane	58-89-9	0.87	U	0.87	0.18	1
10590	Chlordane	57-74-9	18	U	18	4.2	1
10590	p,p-DDD	72-54-8	1.8	U	1.8	0.34	1
10590	p,p-DDE	72-55-9	1.8	U	1.8	0.34	1
10590	p,p-DDT	50-29-3	1.8	U	1.8	0.36	1
10590	Delta BHC	319-86-8	0.87	U	0.87	0.47	1
10590	Dieldrin	60-57-1	1.8	U	1.8	0.34	1
10590	Endosulfan I	959-98-8	0.87	U	0.87	0.23	1
10590	Endosulfan II	33213-65-9	1.8	U	1.8	0.34	1
10590	Endosulfan Sulfate	1031-07-8	1.8	U	1.8	0.34	1
10590	Endrin	72-20-8	1.8	U	1.8	0.34	1
10590	Endrin Aldehyde	7421-93-4	1.8	U	1.8	0.34	1
10590	Endrin Ketone	53494-70-5	1.9	U	1.9	0.63	1
10590	Heptachlor	76-44-8	0.87	U	0.87	0.18	1
10590	Heptachlor Epoxide	1024-57-3	0.87	U	0.87	0.18	1
10590	Methoxychlor	72-43-5	7.0	U	7.0	1.8	1
10590	Mirex	2385-85-5	1.8	U	1.8	0.36	1
10590	Toxaphene	8001-35-2	34	U	34	15	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.2	U	5.2	2.1	1
12952	EFH (C15-C20)	n.a.	5.2	U	5.2	2.1	1
12952	EFH (C21-C30)	n.a.	4.3	J	5.2	2.1	1
12952	EFH (C30-C40)	n.a.	13		10	4.2	1
12952	EFH (C8-C11)	n.a.	5.2	U	5.2	2.1	1
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	4.4		0.10	0.10	1

Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor

*=This limit was used in the evaluation of the final result

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Lancaster Laboratories Environmental
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Analysis Report

Sample Description: SL-506-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 NBZ

LL Sample # SW 7301917
LL Group # 1438596
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/04/2013 10:30 by KE

Submitted: 12/05/2013 09:50
Reported: 12/31/2013 07:50

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

50600 SDG#: PH139-01

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10590	20a Pesticides by EPA 8081B	SW-846 8081B	1	133440020A	12/16/2013 16:17	Jamie L Brillhart	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	133440020A	12/11/2013 07:30	Joseph S Feister	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	133450021A	12/12/2013 21:59	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	133450021A	12/12/2013 03:00	Sherry L Morrow	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13346162401A	12/12/2013 23:37	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-507-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 NBZ

LL Sample # SW 7301918
LL Group # 1438596
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/04/2013 10:00 by KE

Submitted: 12/05/2013 09:50
Reported: 12/31/2013 07:50

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

50700 SDG#: PH139-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs	**SW-846 8081B**		**ug/kg**		**ug/kg**	**ug/kg**	
10590	Aldrin	309-00-2	0.86	U	0.86	0.18	1
10590	Alpha BHC	319-84-6	0.86	U	0.86	0.18	1
10590	Beta BHC	319-85-7	2.0	U	2.0	1.0	1
10590	Gamma BHC - Lindane	58-89-9	0.86	U	0.86	0.18	1
10590	Chlordane	57-74-9	18	U	18	4.1	1
10590	p,p-DDD	72-54-8	1.8	U	1.8	0.34	1
10590	p,p-DDE	72-55-9	0.63	J	1.8	0.34	1
10590	p,p-DDT	50-29-3	0.43	J	1.8	0.36	1
10590	Delta BHC	319-86-8	0.86	U	0.86	0.47	1
10590	Dieldrin	60-57-1	1.8	U	1.8	0.34	1
10590	Endosulfan I	959-98-8	0.86	U	0.86	0.23	1
10590	Endosulfan II	33213-65-9	1.8	U	1.8	0.34	1
10590	Endosulfan Sulfate	1031-07-8	1.8	U	1.8	0.34	1
10590	Endrin	72-20-8	1.8	U	1.8	0.34	1
10590	Endrin Aldehyde	7421-93-4	1.8	U	1.8	0.34	1
10590	Endrin Ketone	53494-70-5	1.9	U	1.9	0.62	1
10590	Heptachlor	76-44-8	0.86	U	0.86	0.18	1
10590	Heptachlor Epoxide	1024-57-3	0.86	U	0.86	0.18	1
10590	Methoxychlor	72-43-5	6.9	U	6.9	1.8	1
10590	Mirex	2385-85-5	1.8	U	1.8	0.36	1
10590	Toxaphene	8001-35-2	34	U	34	15	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.2	U	5.2	2.1	1
12952	EFH (C15-C20)	n.a.	5.2	U	5.2	2.1	1
12952	EFH (C21-C30)	n.a.	5.7		5.2	2.1	1
12952	EFH (C30-C40)	n.a.	13		10	4.2	1
12952	EFH (C8-C11)	n.a.	5.2	U	5.2	2.1	1
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	4.5		0.10	0.10	1

Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-507-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 NBZ

LL Sample # SW 7301918
LL Group # 1438596
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/04/2013 10:00 by KE

Submitted: 12/05/2013 09:50
Reported: 12/31/2013 07:50

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

50700 SDG#: PH139-02

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10590	20a Pesticides by EPA 8081B	SW-846 8081B	1	133440020A	12/16/2013 16:32	Jamie L Brillhart	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	133440020A	12/11/2013 07:30	Joseph S Feister	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	133450021A	12/12/2013 22:20	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	133450021A	12/12/2013 03:00	Sherry L Morrow	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13346162401A	12/12/2013 23:37	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-507-NBZ-SB-3.5-4.5 Soil
SSFL Phase 3 NBZ

LL Sample # SW 7301919
LL Group # 1438596
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/04/2013 10:15 by KE

Submitted: 12/05/2013 09:50
Reported: 12/31/2013 07:50

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

50735 SDG#: PH139-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	0.6	J	1.0	0.2	24.18
Pesticides/PCBs	**SW-846 8081B**		**ug/kg**		**ug/kg**	**ug/kg**	
10590	Aldrin	309-00-2	0.88	U	0.88	0.18	1
10590	Alpha BHC	319-84-6	0.88	U	0.88	0.18	1
10590	Beta BHC	319-85-7	2.0	U	2.0	1.0	1
10590	Gamma BHC - Lindane	58-89-9	0.88	U	0.88	0.18	1
10590	Chlordane	57-74-9	18	U	18	4.2	1
10590	p,p-DDD	72-54-8	1.8	U	1.8	0.35	1
10590	p,p-DDE	72-55-9	1.8	U	1.8	0.35	1
10590	p,p-DDT	50-29-3	1.8	U	1.8	0.37	1
10590	Delta BHC	319-86-8	0.88	U	0.88	0.48	1
10590	Dieldrin	60-57-1	1.8	U	1.8	0.35	1
10590	Endosulfan I	959-98-8	0.88	U	0.88	0.23	1
10590	Endosulfan II	33213-65-9	1.8	U	1.8	0.35	1
10590	Endosulfan Sulfate	1031-07-8	1.8	U	1.8	0.35	1
10590	Endrin	72-20-8	1.8	U	1.8	0.35	1
10590	Endrin Aldehyde	7421-93-4	1.8	U	1.8	0.35	1
10590	Endrin Ketone	53494-70-5	1.9	U	1.9	0.64	1
10590	Heptachlor	76-44-8	0.88	U	0.88	0.18	1
10590	Heptachlor Epoxide	1024-57-3	0.88	U	0.88	0.18	1
10590	Methoxychlor	72-43-5	7.1	U	7.1	1.8	1
10590	Mirex	2385-85-5	1.8	U	1.8	0.37	1
10590	Toxaphene	8001-35-2	35	U	35	15	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.3	U	5.3	2.1	1
12952	EFH (C15-C20)	n.a.	5.3	U	5.3	2.1	1
12952	EFH (C21-C30)	n.a.	3.3	J	5.3	2.1	1
12952	EFH (C30-C40)	n.a.	8.3	J	11	4.3	1
12952	EFH (C8-C11)	n.a.	5.3	U	5.3	2.1	1
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	6.4		0.10	0.10	1

Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-507-NBZ-SB-3.5-4.5 Soil
SSFL Phase 3 NBZ

LL Sample # SW 7301919
LL Group # 1438596
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/04/2013 10:15 by KE

Submitted: 12/05/2013 09:50
Reported: 12/31/2013 07:50

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

50735 SDG#: PH139-03

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	13347A16A	12/16/2013 20:11	Marie D Beamenderfer	24.18
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201333933341	12/05/2013 14:52	Mitchell R Washel	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201333933341	12/05/2013 14:52	Mitchell R Washel	n.a.
10590	20a Pesticides by EPA 8081B	SW-846 8081B	1	133440020A	12/16/2013 16:47	Jamie L Brillhart	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	133440020A	12/11/2013 07:30	Joseph S Feister	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	133450021A	12/12/2013 22:42	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	133450021A	12/12/2013 03:00	Sherry L Morrow	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13346162401A	12/12/2013 23:37	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

eurofins
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Analysis Report

Sample Description: SL-508-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 NBZ

LL Sample # SW 7301920
LL Group # 1438596
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/04/2013 09:00 by KE

Submitted: 12/05/2013 09:50
Reported: 12/31/2013 07:50

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

50800 SDG#: PH139-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.8	U	1.8	0.74	1
12969	Acenaphthylene	208-96-8	1.8	U	1.8	0.37	1
12969	Anthracene	120-12-7	1.8	U	1.8	0.37	1
12969	Benzo(a)anthracene	56-55-3	1.8	U	1.8	0.74	1
12969	Benzo(a)pyrene	50-32-8	1.8	U	1.8	0.74	1
12969	Benzo(b)fluoranthene	205-99-2	1.8	U	1.8	0.74	1
12969	Benzo(e)pyrene	192-97-2	19	U	19	3.7	1
12969	Benzo(g,h,i)perylene	191-24-2	1.8	U	1.8	0.74	1
12969	Benzo(k)fluoranthene	207-08-9	1.8	U	1.8	0.74	1
12969	Butylbenzylphthalate	85-68-7	20	U	20	6.6	1
12969	Di-n-butylphthalate	84-74-2	20	U	20	6.6	1
12969	Chrysene	218-01-9	1.8	U	1.8	0.37	1
12969	Dibenz(a,h)anthracene	53-70-3	1.8	U	1.8	0.74	1
12969	Diethylphthalate	84-66-2	20	U	20	6.6	1
12969	Dimethylphthalate	131-11-3	20	U	20	6.6	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	7.6	J	20	6.6	1
12969	Fluoranthene	206-44-0	1.8	U	1.8	0.74	1
12969	Fluorene	86-73-7	1.8	U	1.8	0.74	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.8	U	1.8	0.74	1
12969	1-Methylnaphthalene	90-12-0	1.8	U	1.8	0.74	1
12969	2-Methylnaphthalene	91-57-6	1.8	U	1.8	0.74	1
12969	Naphthalene	91-20-3	1.8	U	1.8	0.74	1
12969	N-Nitrosodimethylamine	62-75-9	1.8	U	1.8	0.74	1
12969	Di-n-octylphthalate	117-84-0	20	U	20	6.6	1
12969	Phenanthrene	85-01-8	1.2	J	1.8	0.74	1
12969	Pyrene	129-00-0	1.8	U	1.8	0.74	1
Pesticides/PCBs	**SW-846 8081B**		**ug/kg**		**ug/kg**	**ug/kg**	
10590	Aldrin	309-00-2	0.91	U	0.91	0.19	1
10590	Alpha BHC	319-84-6	0.91	U	0.91	0.19	1
10590	Beta BHC	319-85-7	2.1	U	2.1	1.1	1
10590	Gamma BHC - Lindane	58-89-9	0.91	U	0.91	0.19	1
10590	Chlordane	57-74-9	19	U	19	4.4	1
10590	p,p-DDD	72-54-8	1.9	U	1.9	0.36	1
10590	p,p-DDE	72-55-9	1.9	U	1.9	0.36	1
10590	p,p-DDT	50-29-3	1.9	U	1.9	0.39	1
10590	Delta BHC	319-86-8	0.91	U	0.91	0.50	1
10590	Dieldrin	60-57-1	1.9	U	1.9	0.36	1
10590	Endosulfan I	959-98-8	0.91	U	0.91	0.24	1
10590	Endosulfan II	33213-65-9	1.9	U	1.9	0.36	1
10590	Endosulfan Sulfate	1031-07-8	1.9	U	1.9	0.36	1
10590	Endrin	72-20-8	1.9	U	1.9	0.36	1
10590	Endrin Aldehyde	7421-93-4	1.9	U	1.9	0.36	1
10590	Endrin Ketone	53494-70-5	2.0	U	2.0	0.66	1
10590	Heptachlor	76-44-8	0.91	U	0.91	0.19	1
10590	Heptachlor Epoxide	1024-57-3	0.91	U	0.91	0.19	1
10590	Methoxychlor	72-43-5	7.4	U	7.4	1.9	1
10590	Mirex	2385-85-5	1.9	U	1.9	0.39	1
10590	Toxaphene	8001-35-2	36	U	36	15	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-508-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 NBZ

LL Sample # SW 7301920
LL Group # 1438596
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/04/2013 09:00 by KE

Submitted: 12/05/2013 09:50
Reported: 12/31/2013 07:50

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

50800 SDG#: PH139-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	36	U	36	11	1
13099	Aroclor 5442	12642-23-8	36	U	36	11	1
13099	Aroclor 5460	11126-42-4	36	U	36	11	1
13099	PCB-1016	12674-11-2	19	U	19	3.6	1
13099	PCB-1221	11104-28-2	19	U	19	5.6	1
13099	PCB-1232	11141-16-5	19	U	19	4.5	1
13099	PCB-1242	53469-21-9	19	U	19	4.5	1
13099	PCB-1248	12672-29-6	19	U	19	3.6	1
13099	PCB-1254	11097-69-1	19	U	19	4.9	1
13099	PCB-1260	11096-82-5	19	U	19	4.3	1
13099	PCB-1262	37324-23-5	19	U	19	3.6	1
13099	PCB-1268	11100-14-4	19	U	19	3.6	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.5	U	5.5	2.2	1
12952	EFH (C15-C20)	n.a.	5.5	U	5.5	2.2	1
12952	EFH (C21-C30)	n.a.	3.2	J	5.5	2.2	1
12952	EFH (C30-C40)	n.a.	7.9	J	11	4.4	1
12952	EFH (C8-C11)	n.a.	5.5	U	5.5	2.2	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045D	n.a.	6.93		0.0100	0.0100	1
	The pH was measured in water at 20.7 C.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	9.4		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

*=This limit was used in the evaluation of the final result

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Lancaster Laboratories Environmental
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Analysis Report

Sample Description: SL-508-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 NBZ

LL Sample # SW 7301920
LL Group # 1438596
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/04/2013 09:00 by KE

Submitted: 12/05/2013 09:50
Reported: 12/31/2013 07:50

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

50800 SDG#: PH139-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.112	JBQ	1.10	0.0791	1
11031	12378-PeCDD	40321-76-4	5.51	U	5.51	0.0468	1
11031	123478-HxCDD	39227-28-6	0.0429	JBQ	5.51	0.0343	1
11031	123678-HxCDD	57653-85-7	0.0747	JBQ	5.51	0.0359	1
11031	123789-HxCDD	19408-74-3	0.0602	JBQ	5.51	0.0334	1
11031	1234678-HpCDD	35822-46-9	0.120	JB	5.51	0.0333	1
11031	OCDD	3268-87-9	0.486	JB	11.0	0.0398	1
11031	2378-TCDF	51207-31-9	0.122	JBQ	1.10	0.0868	1
11031	12378-PeCDF	57117-41-6	0.107	JB	5.51	0.0348	1
11031	23478-PeCDF	57117-31-4	0.131	JBQ	5.51	0.0313	1
11031	123478-HxCDF	70648-26-9	0.0919	JBQ	5.51	0.0381	1
11031	123678-HxCDF	57117-44-9	0.0630	JB	5.51	0.0344	1
11031	123789-HxCDF	72918-21-9	0.126	JBQ	5.51	0.0372	1
11031	234678-HxCDF	60851-34-5	0.0919	JB	5.51	0.0338	1
11031	1234678-HpCDF	67562-39-4	0.119	JB	5.51	0.0187	1
11031	1234789-HpCDF	55673-89-7	0.106	JB	5.51	0.0241	1
11031	OCDF	39001-02-0	0.328	JB	11.0	0.0639	1
D/F Toxic Equivalents	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.0224				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	63	25 - 164
13C12-12378-PeCDD	67	25 - 181
13C12-123478-HxCDD	80	32 - 141
13C12-123678-HxCDD	79	28 - 130
13C12-123789-HxCDD	77	28 - 130
13C12-1234678-HpCDD	69	23 - 140
13C12-OCDD	60	17 - 157
13C12-2378-TCDF	58	24 - 169
13C12-12378-PeCDF	64	24 - 185
13C12-23478-PeCDF	65	21 - 178
13C12-123478-HxCDF	72	26 - 152
13C12-123678-HxCDF	76	26 - 123
13C12-234678-HxCDF	76	28 - 136
13C12-123789-HxCDF	76	29 - 147
13C12-1234678-HpCDF	76	28 - 143
13C12-1234789-HpCDF	62	26 - 138
13C12-OCDF	53	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column

*=This limit was used in the evaluation of the final result

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Lancaster Laboratories Environmental

Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: SL-508-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 NBZ

LL Sample # SW 7301920
LL Group # 1438596
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/04/2013 09:00 by KE

Submitted: 12/05/2013 09:50
Reported: 12/31/2013 07:50

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

50800 SDG#: PH139-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-508-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 NBZ

LL Sample # SW 7301920
LL Group # 1438596
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/04/2013 09:00 by KE

Submitted: 12/05/2013 09:50
Reported: 12/31/2013 07:50

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

50800 SDG#: PH139-04

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13344SLE026	12/24/2013 09:45	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	13344SLE026	12/10/2013 17:45	Nicholas W Shroyer	1
10590	20a Pesticides by EPA 8081B	SW-846 8081B	1	133440020A	12/16/2013 17:03	Jamie L Brillhart	1
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	133440007A	12/11/2013 15:13	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	133440007A	12/10/2013 16:00	JoElla L Rice	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	133440020A	12/11/2013 07:30	Joseph S Feister	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	133450021A	12/12/2013 23:04	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	133450021A	12/12/2013 03:00	Sherry L Morrow	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13347003	12/16/2013 19:19	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13347003	12/13/2013 11:30	Chin F Ly	1
00394	15a pH by 9045D	SW-846 9045D modified	1	13339039402A	12/05/2013 21:20	Michelle L Lalli	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13346162401A	12/12/2013 23:37	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-508-NBZ-SB-4.0-5.0 Soil
SSFL Phase 3 NBZ

LL Sample # SW 7301921
LL Group # 1438596
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/04/2013 09:15 by KE

Submitted: 12/05/2013 09:50
Reported: 12/31/2013 07:50

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

50845 SDG#: PH139-05

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.9	U	1.9	0.74	1
12969	Acenaphthylene	208-96-8	1.9	U	1.9	0.37	1
12969	Anthracene	120-12-7	1.9	U	1.9	0.37	1
12969	Benzo(a)anthracene	56-55-3	1.9	U	1.9	0.74	1
12969	Benzo(a)pyrene	50-32-8	1.9	U	1.9	0.74	1
12969	Benzo(b)fluoranthene	205-99-2	1.9	U	1.9	0.74	1
12969	Benzo(e)pyrene	192-97-2	19	U	19	3.7	1
12969	Benzo(g,h,i)perylene	191-24-2	1.9	U	1.9	0.74	1
12969	Benzo(k)fluoranthene	207-08-9	1.9	U	1.9	0.74	1
12969	Butylbenzylphthalate	85-68-7	20	U	20	6.7	1
12969	Di-n-butylphthalate	84-74-2	20	U	20	6.7	1
12969	Chrysene	218-01-9	0.48	J	1.9	0.37	1
12969	Dibenz(a,h)anthracene	53-70-3	1.9	U	1.9	0.74	1
12969	Diethylphthalate	84-66-2	20	U	20	6.7	1
12969	Dimethylphthalate	131-11-3	20	U	20	6.7	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	20	U	20	6.7	1
12969	Fluoranthene	206-44-0	1.9	U	1.9	0.74	1
12969	Fluorene	86-73-7	1.9	U	1.9	0.74	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.9	U	1.9	0.74	1
12969	1-Methylnaphthalene	90-12-0	1.9	U	1.9	0.74	1
12969	2-Methylnaphthalene	91-57-6	1.9	U	1.9	0.74	1
12969	Naphthalene	91-20-3	1.9	U	1.9	0.74	1
12969	N-Nitrosodimethylamine	62-75-9	1.9	U	1.9	0.74	1
12969	Di-n-octylphthalate	117-84-0	20	U	20	6.7	1
12969	Phenanthrene	85-01-8	1.9	U	1.9	0.74	1
12969	Pyrene	129-00-0	1.9	U	1.9	0.74	1
GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	1	U	1	0.2	22.44
Pesticides/PCBs	**SW-846 8081B**		**ug/kg**		**ug/kg**	**ug/kg**	
10590	Aldrin	309-00-2	0.92	U	0.92	0.19	1
10590	Alpha BHC	319-84-6	0.92	U	0.92	0.19	1
10590	Beta BHC	319-85-7	2.1	U	2.1	1.1	1
10590	Gamma BHC - Lindane	58-89-9	0.92	U	0.92	0.19	1
10590	Chlordane	57-74-9	19	U	19	4.4	1
10590	p,p-DDD	72-54-8	1.9	U	1.9	0.36	1
10590	p,p-DDE	72-55-9	1.9	U	1.9	0.36	1
10590	p,p-DDT	50-29-3	1.9	U	1.9	0.39	1
10590	Delta BHC	319-86-8	0.92	U	0.92	0.50	1
10590	Dieldrin	60-57-1	1.9	U	1.9	0.36	1
10590	Endosulfan I	959-98-8	0.92	U	0.92	0.24	1
10590	Endosulfan II	33213-65-9	1.9	U	1.9	0.36	1
10590	Endosulfan Sulfate	1031-07-8	1.9	U	1.9	0.36	1
10590	Endrin	72-20-8	1.9	U	1.9	0.36	1
10590	Endrin Aldehyde	7421-93-4	1.9	U	1.9	0.36	1
10590	Endrin Ketone	53494-70-5	2.0	U	2.0	0.66	1
10590	Heptachlor	76-44-8	0.92	U	0.92	0.19	1
10590	Heptachlor Epoxide	1024-57-3	0.92	U	0.92	0.19	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-508-NBZ-SB-4.0-5.0 Soil
SSFL Phase 3 NBZ

LL Sample # SW 7301921
LL Group # 1438596
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/04/2013 09:15 by KE

Submitted: 12/05/2013 09:50
Reported: 12/31/2013 07:50

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

50845 SDG#: PH139-05

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs	**SW-846 8081B**		**ug/kg**		**ug/kg**	**ug/kg**	
10590	Methoxychlor	72-43-5	7.4	U	7.4	1.9	1
10590	Mirex	2385-85-5	1.9	U	1.9	0.39	1
10590	Toxaphene	8001-35-2	36	U	36	15	1
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	37	U	37	11	1
13099	Aroclor 5442	12642-23-8	37	U	37	11	1
13099	Aroclor 5460	11126-42-4	37	U	37	11	1
13099	PCB-1016	12674-11-2	19	U	19	3.7	1
13099	PCB-1221	11104-28-2	19	U	19	5.7	1
13099	PCB-1232	11141-16-5	19	U	19	4.6	1
13099	PCB-1242	53469-21-9	19	U	19	4.6	1
13099	PCB-1248	12672-29-6	19	U	19	3.7	1
13099	PCB-1254	11097-69-1	19	U	19	4.9	1
13099	PCB-1260	11096-82-5	19	U	19	4.3	1
13099	PCB-1262	37324-23-5	19	U	19	3.7	1
13099	PCB-1268	11100-14-4	19	U	19	3.7	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.5	U	5.5	2.2	1
12952	EFH (C15-C20)	n.a.	5.5	U	5.5	2.2	1
12952	EFH (C21-C30)	n.a.	3.2	J	5.5	2.2	1
12952	EFH (C30-C40)	n.a.	8.2	J	11	4.4	1
12952	EFH (C8-C11)	n.a.	5.5	U	5.5	2.2	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045D	n.a.	7.06		0.0100	0.0100	1
	The pH was measured in water at 20.8 C.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	10.0		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

*=This limit was used in the evaluation of the final result

Sample Description: SL-508-NBZ-SB-4.0-5.0 Soil
SSFL Phase 3 NBZ

LL Sample # SW 7301921
LL Group # 1438596
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/04/2013 09:15 by KE

Submitted: 12/05/2013 09:50
Reported: 12/31/2013 07:50

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

50845 SDG#: PH139-05

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	1.10	U	1.10	0.0782	1
11031	12378-PeCDD	40321-76-4	5.50	U	5.50	0.0513	1
11031	123478-HxCDD	39227-28-6	5.50	U	5.50	0.0376	1
11031	123678-HxCDD	57653-85-7	0.0656	JB	5.50	0.0397	1
11031	123789-HxCDD	19408-74-3	0.0377	JBQ	5.50	0.0360	1
11031	1234678-HpCDD	35822-46-9	0.186	JBQ	5.50	0.0341	1
11031	OCDD	3268-87-9	1.22	JB	11.0	0.0432	1
11031	2378-TCDF	51207-31-9	0.107	JBQ	1.10	0.0753	1
11031	12378-PeCDF	57117-41-6	0.0722	JBQ	5.50	0.0333	1
11031	23478-PeCDF	57117-31-4	0.0629	JBQ	5.50	0.0307	1
11031	123478-HxCDF	70648-26-9	0.0401	JBQ	5.50	0.0369	1
11031	123678-HxCDF	57117-44-9	5.50	U	5.50	0.0359	1
11031	123789-HxCDF	72918-21-9	0.114	JBQ	5.50	0.0373	1
11031	234678-HxCDF	60851-34-5	0.0565	JBQ	5.50	0.0328	1
11031	1234678-HpCDF	67562-39-4	0.101	JBQ	5.50	0.0186	1
11031	1234789-HpCDF	55673-89-7	0.0765	JBQ	5.50	0.0236	1
11031	OCDF	39001-02-0	0.322	JB	11.0	0.0597	1
D/F Toxic Equivalents	**EPA 1613B**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.00700				1

Labeled Compounds	**%Rec**	**Windows**
13C12-2378-TCDD	62	25 - 164
13C12-12378-PeCDD	65	25 - 181
13C12-123478-HxCDD	80	32 - 141
13C12-123678-HxCDD	78	28 - 130
13C12-123789-HxCDD	78	28 - 130
13C12-1234678-HpCDD	69	23 - 140
13C12-OCDD	59	17 - 157
13C12-2378-TCDF	58	24 - 169
13C12-12378-PeCDF	62	24 - 185
13C12-23478-PeCDF	62	21 - 178
13C12-123478-HxCDF	72	26 - 152
13C12-123678-HxCDF	74	26 - 123
13C12-234678-HxCDF	76	28 - 136
13C12-123789-HxCDF	72	29 - 147
13C12-1234678-HpCDF	76	28 - 143
13C12-1234789-HpCDF	62	26 - 138
13C12-OCDF	51	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-508-NBZ-SB-4.0-5.0 Soil
SSFL Phase 3 NBZ

LL Sample # SW 7301921
LL Group # 1438596
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/04/2013 09:15 by KE

Submitted: 12/05/2013 09:50
Reported: 12/31/2013 07:50

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

50845 SDG#: PH139-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

Q EMPC - Estimated Maximum Possible Concentration
F Interference is present
S Saturation of detection signal

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-508-NBZ-SB-4.0-5.0 Soil
SSFL Phase 3 NBZ

LL Sample # SW 7301921
LL Group # 1438596
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/04/2013 09:15 by KE

Submitted: 12/05/2013 09:50
Reported: 12/31/2013 07:50

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

50845 SDG#: PH139-05

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13344SLE026	12/24/2013 10:19	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	13344SLE026	12/10/2013 17:45	Nicholas W Shroyer	1
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	13347A16A	12/16/2013 20:49	Marie D Beamenderfer	22.44
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201333933341	12/05/2013 14:53	Mitchell R Washel	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201333933341	12/05/2013 14:53	Mitchell R Washel	n.a.
10590	20a Pesticides by EPA 8081B	SW-846 8081B	1	133440020A	12/16/2013 17:18	Jamie L Brillhart	1
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	133440007A	12/11/2013 15:31	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	133440007A	12/10/2013 16:00	JoElla L Rice	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	133440020A	12/11/2013 07:30	Joseph S Feister	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	133450021A	12/12/2013 23:25	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	133450021A	12/12/2013 03:00	Sherry L Morrow	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13347003	12/16/2013 20:15	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13347003	12/13/2013 11:30	Chin F Ly	1
00394	15a pH by 9045D	SW-846 9045D modified	1	13339039402A	12/05/2013 21:20	Michelle L Lalli	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13346162401A	12/12/2013 23:37	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-546-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 NBZ

LL Sample # SW 7301922
LL Group # 1438596
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/04/2013 09:55 by KE

Submitted: 12/05/2013 09:50
Reported: 12/31/2013 07:50

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

54600 SDG#: PH139-06

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	26	U	26	10	5
12952	EFH (C15-C20)	n.a.	11	J	26	10	5
12952	EFH (C21-C30)	n.a.	76		26	10	5
12952	EFH (C30-C40)	n.a.	250		52	21	5
12952	EFH (C8-C11)	n.a.	26	U	26	10	5
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	3.1		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	133450021A	12/13/2013 20:34	Heather E Williams	5
12959	EFH soil ext.(microwave)	SW-846 3546	1	133450021A	12/12/2013 03:00	Sherry L Morrow	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13346162401A	12/12/2013 23:37	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-547-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 NBZ

LL Sample # SW 7301923
LL Group # 1438596
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/04/2013 10:45 by KE

Submitted: 12/05/2013 09:50
Reported: 12/31/2013 07:50

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

54700 SDG#: PH139-07

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	11	U	11	4.2	2
12952	EFH (C15-C20)	n.a.	10	J	11	4.2	2
12952	EFH (C21-C30)	n.a.	62		11	4.2	2
12952	EFH (C30-C40)	n.a.	150		21	8.5	2
12952	EFH (C8-C11)	n.a.	11	U	11	4.2	2
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	5.4		0.10	0.10	1

Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	133450021A	12/13/2013 20:55	Heather E Williams	2
12959	EFH soil ext.(microwave)	SW-846 3546	1	133450021A	12/12/2013 03:00	Sherry L Morrow	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13346162401A	12/12/2013 23:37	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-549-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 NBZ

LL Sample # SW 7301924
LL Group # 1438596
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/04/2013 08:55 by KE

Submitted: 12/05/2013 09:50
Reported: 12/31/2013 07:50

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

54900 SDG#: PH139-08

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.1	U	5.1	2.0	1
12952	EFH (C15-C20)	n.a.	5.1	U	5.1	2.0	1
12952	EFH (C21-C30)	n.a.	13		5.1	2.0	1
12952	EFH (C30-C40)	n.a.	24		10	4.1	1
12952	EFH (C8-C11)	n.a.	5.1	U	5.1	2.0	1
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	1.9		0.10	0.10	1

Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	133450021A	12/13/2013 00:52	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	133450021A	12/12/2013 03:00	Sherry L Morrow	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13346162401A	12/12/2013 23:37	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: TB-120413 Water
SSFL Phase 3 NBZ

LL Sample # WW 7301925
LL Group # 1438596
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/04/2013 08:00

Submitted: 12/05/2013 09:50
Reported: 12/31/2013 07:50

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

TB139 SDG#: PH139-09TB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC Volatiles	**TPH GRO SW-8015B**		ug/l		ug/l	ug/l	
08229	TPH-GRO S.CA water C5-C12	n.a.	50	U	50	20	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08229	11b TPH by EPA 8015B GRO	TPH GRO SW-8015B	1	13339A94A	12/06/2013 13:55	Catherine J Schwarz	1
01146	GC VOA Water Prep	SW-846 5030B	1	13339A94A	12/06/2013 13:55	Catherine J Schwarz	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-545-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 NBZ

LL Sample # SW 7301926
LL Group # 1438596
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/04/2013 13:25 by KE

Submitted: 12/05/2013 09:50
Reported: 12/31/2013 07:50

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
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54500 SDG#: PH139-10BKG

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	18	U	18	7.2	10
12969	Acenaphthylene	208-96-8	18	U	18	3.6	10
12969	Anthracene	120-12-7	18	U	18	3.6	10
12969	Benzo(a)anthracene	56-55-3	18	U	18	7.2	10
12969	Benzo(a)pyrene	50-32-8	18	U	18	7.2	10
12969	Benzo(b)fluoranthene	205-99-2	15	J	18	7.2	10
12969	Benzo(e)pyrene	192-97-2	180	U	180	36	10
12969	Benzo(g,h,i)perylene	191-24-2	18	U	18	7.2	10
12969	Benzo(k)fluoranthene	207-08-9	18	U	18	7.2	10
12969	Butylbenzylphthalate	85-68-7	190	U	190	65	10
12969	Di-n-butylphthalate	84-74-2	190	U	190	65	10
12969	Chrysene	218-01-9	20		18	3.6	10
12969	Dibenz(a,h)anthracene	53-70-3	18	U	18	7.2	10
12969	Diethylphthalate	84-66-2	190	U	190	65	10
12969	Dimethylphthalate	131-11-3	190	U	190	65	10
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	190	U	190	65	10
12969	Fluoranthene	206-44-0	18	U	18	7.2	10
12969	Fluorene	86-73-7	18	U	18	7.2	10
12969	Indeno(1,2,3-cd)pyrene	193-39-5	18	U	18	7.2	10
12969	1-Methylnaphthalene	90-12-0	18	U	18	7.2	10
12969	2-Methylnaphthalene	91-57-6	18	U	18	7.2	10
12969	Naphthalene	91-20-3	12	J	18	7.2	10
12969	N-Nitrosodimethylamine	62-75-9	18	U	18	7.2	10
12969	Di-n-octylphthalate	117-84-0	190	U	190	65	10
12969	Phenanthrene	85-01-8	18	U	18	7.2	10
12969	Pyrene	129-00-0	18	U	18	7.2	10
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	36	U	36	11	1
13099	Aroclor 5442	12642-23-8	36	U	36	11	1
13099	Aroclor 5460	11126-42-4	36	U	36	11	1
13099	PCB-1016	12674-11-2	18	U	18	3.6	1
13099	PCB-1221	11104-28-2	18	U	18	5.5	1
13099	PCB-1232	11141-16-5	18	U	18	4.4	1
13099	PCB-1242	53469-21-9	18	U	18	4.4	1
13099	PCB-1248	12672-29-6	18	U	18	3.6	1
13099	PCB-1254	11097-69-1	18	U	18	4.8	1
13099	PCB-1260	11096-82-5	18	U	18	4.2	1
13099	PCB-1262	37324-23-5	18	U	18	3.6	1
13099	PCB-1268	11100-14-4	18	U	18	3.6	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	27	U	27	11	5
12952	EFH (C15-C20)	n.a.	35		27	11	5
12952	EFH (C21-C30)	n.a.	150		27	11	5
12952	EFH (C30-C40)	n.a.	370		54	22	5
12952	EFH (C8-C11)	n.a.	27	U	27	11	5
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-545-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 NBZ

LL Sample # SW 7301926
LL Group # 1438596
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/04/2013 13:25 by KE

Submitted: 12/05/2013 09:50
Reported: 12/31/2013 07:50

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

54500 SDG#: PH139-10BKG

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	12,100		42.4	7.64	1
06944	Antimony	7440-36-0	4.24	U	4.24	0.784	1
06935	Arsenic	7440-38-2	3.24	J	4.24	0.742	1
06946	Barium	7440-39-3	71.5		1.06	0.0350	1
06947	Beryllium	7440-41-7	0.477	J	1.06	0.0710	1
07914	Boron	7440-42-8	4.79	J	10.6	0.890	1
06949	Cadmium	7440-43-9	0.447	J	1.06	0.0806	1
01650	Calcium	7440-70-2	5,070		21.2	3.54	1
06951	Chromium	7440-47-3	16.7		3.18	0.170	1
06952	Cobalt	7440-48-4	4.80		1.06	0.105	1
06953	Copper	7440-50-8	4.81		2.12	0.307	1
01654	Iron	7439-89-6	18,500		42.4	3.84	1
06955	Lead	7439-92-1	14.8		3.18	0.530	1
01656	Lithium	7439-93-2	22.7		4.2	0.36	1
01657	Magnesium	7439-95-4	4,240		10.6	1.77	1
06958	Manganese	7439-96-5	283		1.06	0.0880	1
06960	Molybdenum	7439-98-7	0.998	J	2.12	0.180	1
06961	Nickel	7440-02-0	10.7		2.12	0.138	1
10145	Phosphorus	7723-14-0	431		10.6	3.06	1
01662	Potassium	7440-09-7	3,490		106	8.84	1
01667	Sodium	7440-23-5	78.3	J	106	17.7	1
06969	Tin	7440-31-5	2.85	J	10.6	0.233	1
06970	Titanium	7440-32-6	1,010		1.06	0.180	1
06971	Vanadium	7440-62-2	31.2		1.06	0.138	1
06972	Zinc	7440-66-6	57.2		4.24	0.212	1
10146	Zirconium	7440-67-7	1.66	J	5.30	0.890	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.203	J	0.424	0.106	2
06142	Silver	7440-22-4	0.201	J	0.212	0.0276	2
06144	Strontium	7440-24-6	25.3		0.424	0.0721	2
06145	Thallium	7440-28-0	0.213		0.212	0.0318	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.182		0.0171	0.0103	1
Wet Chemistry	**SW-846 9012B**		**mg/kg**		**mg/kg**	**mg/kg**	
05895	18a Cyanide by EPA 9012B	57-12-5	0.52	U	0.52	0.19	1
	SW-846 9045D modified		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045D	n.a.	6.97		0.0100	0.0100	1
	The pH was measured in water at 21.1 C.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	7.5		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

*=This limit was used in the evaluation of the final result

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Analysis Report

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Sample Description: SL-545-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 NBZ

LL Sample # SW 7301926
LL Group # 1438596
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/04/2013 13:25 by KE

Submitted: 12/05/2013 09:50
Reported: 12/31/2013 07:50

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

54500 SDG#: PH139-10BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor

*=This limit was used in the evaluation of the final result

Sample Description: SL-545-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 NBZ

LL Sample # SW 7301926
LL Group # 1438596
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/04/2013 13:25 by KE

Submitted: 12/05/2013 09:50
Reported: 12/31/2013 07:50

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

54500 SDG#: PH139-10BKG

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	0.0707	JB	1.03	0.0480	1
11031	12378-PeCDD	40321-76-4	0.269	JBQ	5.17	0.0631	1
11031	123478-HxCDD	39227-28-6	0.441	JB	5.17	0.0592	1
11031	123678-HxCDD	57653-85-7	1.04	JB	5.17	0.0604	1
11031	123789-HxCDD	19408-74-3	0.790	JB	5.17	0.0584	1
11031	1234678-HpCDD	35822-46-9	17.3	B	5.17	0.0490	1
11031	OCDD	3268-87-9	142	B	10.3	0.0519	1
11031	2378-TCDF	51207-31-9	0.622	JBQ	1.03	0.0922	1
11031	12378-PeCDF	57117-41-6	0.878	JB	5.17	0.0517	1
11031	23478-PeCDF	57117-31-4	0.889	JB	5.17	0.0492	1
11031	123478-HxCDF	70648-26-9	0.466	JB	5.17	0.0550	1
11031	123678-HxCDF	57117-44-9	0.470	JB	5.17	0.0548	1
11031	123789-HxCDF	72918-21-9	0.206	JB	5.17	0.0516	1
11031	234678-HxCDF	60851-34-5	0.462	JB	5.17	0.0505	1
11031	1234678-HpCDF	67562-39-4	3.75	JB	5.17	0.0398	1
11031	1234789-HpCDF	55673-89-7	0.363	JBQ	5.17	0.0488	1
11031	OCDF	39001-02-0	8.97	JB	10.3	0.0378	1
D/F Toxic Equivalents	**EPA 1613B**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	1.01				1

Labeled Compounds	**%Rec**	**Windows**
13C12-2378-TCDD	73	25 - 164
13C12-12378-PeCDD	69	25 - 181
13C12-123478-HxCDD	80	32 - 141
13C12-123678-HxCDD	81	28 - 130
13C12-123789-HxCDD	81	28 - 130
13C12-1234678-HpCDD	72	23 - 140
13C12-OCDD	67	17 - 157
13C12-2378-TCDF	69	24 - 169
13C12-12378-PeCDF	68	24 - 185
13C12-23478-PeCDF	67	21 - 178
13C12-123478-HxCDF	75	26 - 152
13C12-123678-HxCDF	76	26 - 123
13C12-234678-HxCDF	81	28 - 136
13C12-123789-HxCDF	88	29 - 147
13C12-1234678-HpCDF	74	28 - 143
13C12-1234789-HpCDF	69	26 - 138
13C12-OCDF	64	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column

*=This limit was used in the evaluation of the final result

Sample Description: SL-545-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 NBZ

LL Sample # SW 7301926
LL Group # 1438596
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/04/2013 13:25 by KE

Submitted: 12/05/2013 09:50
Reported: 12/31/2013 07:50

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

54500 SDG#: PH139-10BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-545-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 NBZ

LL Sample # SW 7301926
LL Group # 1438596
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/04/2013 13:25 by KE

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CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

54500 SDG#: PH139-10BKG

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13344SLE026	12/24/2013 11:59	Mark A Clark	10
10811	BNA Soil Microwave SIM	SW-846 3546	1	13344SLE026	12/10/2013 17:45	Nicholas W Shroyer	1
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	133440007A	12/11/2013 15:50	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	133440007A	12/10/2013 16:00	JoElla L Rice	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	133450021A	12/13/2013 18:46	Heather E Williams	5
12959	EFH soil ext.(microwave)	SW-846 3546	1	133450021A	12/12/2013 03:00	Sherry L Morrow	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13347003	12/16/2013 21:12	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13347003	12/13/2013 11:30	Chin F Ly	1
01643	Aluminum	SW-846 6010C	1	133470637001	12/16/2013 17:45	Katlin N Cataldi	1
06944	Antimony	SW-846 6010C	1	133470637001	12/16/2013 17:45	Katlin N Cataldi	1
06935	Arsenic	SW-846 6010C	1	133470637001	12/16/2013 17:45	Katlin N Cataldi	1
06946	Barium	SW-846 6010C	1	133470637001	12/16/2013 17:45	Katlin N Cataldi	1
06947	Beryllium	SW-846 6010C	1	133470637001	12/16/2013 17:45	Katlin N Cataldi	1
07914	Boron	SW-846 6010C	1	133470637001	12/16/2013 17:45	Katlin N Cataldi	1
06949	Cadmium	SW-846 6010C	1	133470637001	12/16/2013 17:45	Katlin N Cataldi	1
01650	Calcium	SW-846 6010C	1	133470637001	12/16/2013 17:45	Katlin N Cataldi	1
06951	Chromium	SW-846 6010C	1	133470637001	12/16/2013 17:45	Katlin N Cataldi	1
06952	Cobalt	SW-846 6010C	1	133470637001	12/16/2013 17:45	Katlin N Cataldi	1
06953	Copper	SW-846 6010C	1	133470637001	12/16/2013 17:45	Katlin N Cataldi	1
01654	Iron	SW-846 6010C	1	133470637001	12/16/2013 17:45	Katlin N Cataldi	1
06955	Lead	SW-846 6010C	1	133470637001	12/16/2013 17:45	Katlin N Cataldi	1
01656	Lithium	SW-846 6010C	1	133470637001	12/16/2013 17:45	Katlin N Cataldi	1
01657	Magnesium	SW-846 6010C	1	133470637001	12/16/2013 17:45	Katlin N Cataldi	1
06958	Manganese	SW-846 6010C	1	133470637001	12/16/2013 17:45	Katlin N Cataldi	1
06960	Molybdenum	SW-846 6010C	1	133470637001	12/16/2013 17:45	Katlin N Cataldi	1
06961	Nickel	SW-846 6010C	1	133470637001	12/16/2013 17:45	Katlin N Cataldi	1
10145	Phosphorus	SW-846 6010C	1	133470637001	12/16/2013 17:45	Katlin N Cataldi	1
01662	Potassium	SW-846 6010C	1	133470637001	12/16/2013 17:45	Katlin N Cataldi	1
01667	Sodium	SW-846 6010C	1	133470637001	12/16/2013 17:45	Katlin N Cataldi	1
06969	Tin	SW-846 6010C	1	133470637001	12/16/2013 17:45	Katlin N Cataldi	1
06970	Titanium	SW-846 6010C	1	133470637001	12/16/2013 17:45	Katlin N Cataldi	1
06971	Vanadium	SW-846 6010C	1	133470637001	12/16/2013 17:45	Katlin N Cataldi	1
06972	Zinc	SW-846 6010C	1	133470637001	12/16/2013 17:45	Katlin N Cataldi	1
10146	Zirconium	SW-846 6010C	1	133470637001	12/16/2013 17:45	Katlin N Cataldi	1
06141	Selenium	SW-846 6020A	1	133470637001B	12/17/2013 18:12	John P Hook	2
06142	Silver	SW-846 6020A	1	133470637001A	12/17/2013 18:12	John P Hook	2
06144	Strontium	SW-846 6020A	1	133470637001A	12/17/2013 18:12	John P Hook	2

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-545-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 NBZ

LL Sample # SW 7301926
LL Group # 1438596
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/04/2013 13:25 by KE

Submitted: 12/05/2013 09:50
Reported: 12/31/2013 07:50

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

54500 SDG#: PH139-10BKG

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06145	Thallium	SW-846 6020A	1	133470637001A	12/17/2013 18:12	John P Hook	2
00159	3a Mercury 7471A	SW-846 7471B	1	133470638001	12/17/2013 07:21	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	133470637001	12/15/2013 23:55	Annamaria Kuhns	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	133470638001	12/16/2013 02:30	Annamaria Kuhns	1
05895	18a Cyanide by EPA 9012B	SW-846 9012B	1	13349102201A	12/16/2013 09:29	K Robert Caulfeild-James	1
05896	Cyanide Solid Distillation	SW-846 9012B	1	13349102201A	12/15/2013 15:40	Joseph E McKenzie	1
00394	15a pH by 9045D	SW-846 9045D modified	1	13339039402A	12/05/2013 21:20	Michelle L Lalli	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13346162401A	12/12/2013 23:37	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-545-NBZ-SB-0.0-0.5MS Soil
SSFL Phase 3 NBZ

LL Sample # SW 7301927
LL Group # 1438596
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/04/2013 13:25 by KE

Submitted: 12/05/2013 09:50
Reported: 12/31/2013 07:50

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

54500 SDG#: PH139-10MS

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	32		18	7.2	10
12969	Acenaphthylene	208-96-8	30		18	3.6	10
12969	Anthracene	120-12-7	31		18	3.6	10
12969	Benzo(a)anthracene	56-55-3	38		18	7.2	10
12969	Benzo(a)pyrene	50-32-8	34		18	7.2	10
12969	Benzo(b)fluoranthene	205-99-2	41		18	7.2	10
12969	Benzo(e)pyrene	192-97-2	180	U	180	36	10
12969	Benzo(g,h,i)perylene	191-24-2	20		18	7.2	10
12969	Benzo(k)fluoranthene	207-08-9	40		18	7.2	10
12969	Butylbenzylphthalate	85-68-7	190	U	190	65	10
12969	Di-n-butylphthalate	84-74-2	190	U	190	65	10
12969	Chrysene	218-01-9	50		18	3.6	10
12969	Dibenz(a,h)anthracene	53-70-3	23		18	7.2	10
12969	Diethylphthalate	84-66-2	190	U	190	65	10
12969	Dimethylphthalate	131-11-3	190	U	190	65	10
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	190	U	190	65	10
12969	Fluoranthene	206-44-0	37		18	7.2	10
12969	Fluorene	86-73-7	32		18	7.2	10
12969	Indeno(1,2,3-cd)pyrene	193-39-5	23		18	7.2	10
12969	1-Methylnaphthalene	90-12-0	37		18	7.2	10
12969	2-Methylnaphthalene	91-57-6	37		18	7.2	10
12969	Naphthalene	91-20-3	36		18	7.2	10
12969	N-Nitrosodimethylamine	62-75-9	30		18	7.2	10
12969	Di-n-octylphthalate	117-84-0	190	U	190	65	10
12969	Phenanthrene	85-01-8	34		18	7.2	10
12969	Pyrene	129-00-0	38		18	7.2	10
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	36	U	36	11	1
13099	Aroclor 5442	12642-23-8	36	U	36	11	1
13099	Aroclor 5460	11126-42-4	36	U	36	11	1
13099	PCB-1016	12674-11-2	150		18	3.6	1
13099	PCB-1221	11104-28-2	18	U	18	5.5	1
13099	PCB-1232	11141-16-5	18	U	18	4.4	1
13099	PCB-1242	53469-21-9	18	U	18	4.4	1
13099	PCB-1248	12672-29-6	18	U	18	3.6	1
13099	PCB-1254	11097-69-1	18	U	18	4.8	1
13099	PCB-1260	11096-82-5	170		18	4.2	1
13099	PCB-1262	37324-23-5	18	U	18	3.6	1
13099	PCB-1268	11100-14-4	18	U	18	3.6	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	27	U	27	11	5
12952	EFH (C15-C20)	n.a.	27	J	27	11	5
12952	EFH (C21-C30)	n.a.	120		27	11	5
12952	EFH (C30-C40)	n.a.	300		54	22	5
12952	EFH (C8-C11)	n.a.	27	U	27	11	5
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-545-NBZ-SB-0.0-0.5MS Soil
SSFL Phase 3 NBZ

LL Sample # SW 7301927
LL Group # 1438596
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/04/2013 13:25 by KE

Submitted: 12/05/2013 09:50
Reported: 12/31/2013 07:50

CDM Federal Programs Corp.
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Fairfax VA 22030

54500 SDG#: PH139-10MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**	**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	15,100	42.4	7.64	1
06944	Antimony	7440-36-0	33.3	4.24	0.784	1
06935	Arsenic	7440-38-2	19.7	4.24	0.742	1
06946	Barium	7440-39-3	291	1.06	0.0350	1
06947	Beryllium	7440-41-7	6.00	1.06	0.0710	1
07914	Boron	7440-42-8	209	10.6	0.890	1
06949	Cadmium	7440-43-9	5.84	1.06	0.0806	1
01650	Calcium	7440-70-2	6,140	21.2	3.54	1
06951	Chromium	7440-47-3	38.1	3.18	0.170	1
06952	Cobalt	7440-48-4	57.5	1.06	0.105	1
06953	Copper	7440-50-8	31.2	2.12	0.307	1
01654	Iron	7439-89-6	19,600	42.4	3.84	1
06955	Lead	7439-92-1	31.3	3.18	0.530	1
01656	Lithium	7439-93-2	134	4.2	0.36	1
01657	Magnesium	7439-95-4	4,730	10.6	1.77	1
06958	Manganese	7439-96-5	357	1.06	0.0880	1
06960	Molybdenum	7439-98-7	202	2.12	0.180	1
06961	Nickel	7440-02-0	65.1	2.12	0.138	1
10145	Phosphorus	7723-14-0	521	10.6	3.06	1
01662	Potassium	7440-09-7	4,810	106	8.84	1
01667	Sodium	7440-23-5	1,140	106	17.7	1
06969	Tin	7440-31-5	380	10.6	0.233	1
06970	Titanium	7440-32-6	1,320	1.06	0.180	1
06971	Vanadium	7440-62-2	86.0	1.06	0.138	1
06972	Zinc	7440-66-6	113	4.24	0.212	1
10146	Zirconium	7440-67-7	96.6	5.30	0.890	1
	SW-846 6020A		**mg/kg**	**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	2.41	0.424	0.106	2
06142	Silver	7440-22-4	11.3	0.212	0.0276	2
06144	Strontium	7440-24-6	35.9	0.424	0.0721	2
06145	Thallium	7440-28-0	0.623	0.212	0.0318	2
	SW-846 7471B		**mg/kg**	**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.348	0.0175	0.0105	1
Wet Chemistry	**SW-846 9012B**		**mg/kg**	**mg/kg**	**mg/kg**	
05895	18a Cyanide by EPA 9012B	57-12-5	5.7	0.53	0.19	1
Wet Chemistry	**EPA 160.3 modified**		**%**	**%**	**%**	
11625	14a Moisture Content by 160.3	n.a.	7.5	0.10	0.10	1

*=This limit was used in the evaluation of the final result

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Analysis Report

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SSFL Phase 3 NBZ

LL Sample # SW 7301927
LL Group # 1438596
Account # 13013

Project Name: SSFL Phase 3 Sampling

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54500 SDG#: PH139-10MS

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	18.8	B	1.08	0.0729	1
11031	12378-PeCDD	40321-76-4	101	B	5.40	0.0737	1
11031	123478-HxCDD	39227-28-6	106	B	5.40	0.0804	1
11031	123678-HxCDD	57653-85-7	108	B	5.40	0.0855	1
11031	123789-HxCDD	19408-74-3	108	B	5.40	0.0803	1
11031	1234678-HpCDD	35822-46-9	115	B	5.40	0.0827	1
11031	OCDD	3268-87-9	306	B	10.8	0.0869	1
11031	2378-TCDF	51207-31-9	20.4	B	1.08	0.103	1
11031	12378-PeCDF	57117-41-6	107	B	5.40	0.0689	1
11031	23478-PeCDF	57117-31-4	110	B	5.40	0.0661	1
11031	123478-HxCDF	70648-26-9	109	B	5.40	0.0736	1
11031	123678-HxCDF	57117-44-9	110	B	5.40	0.0701	1
11031	123789-HxCDF	72918-21-9	109	B	5.40	0.0632	1
11031	234678-HxCDF	60851-34-5	108	B	5.40	0.0677	1
11031	1234678-HpCDF	67562-39-4	111	B	5.40	0.0517	1
11031	1234789-HpCDF	55673-89-7	110	B	5.40	0.0671	1
11031	OCDF	39001-02-0	218	B	10.8	0.0794	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	82	25 - 164
13C12-12378-PeCDD	75	25 - 181
13C12-123478-HxCDD	88	32 - 141
13C12-123678-HxCDD	88	28 - 130
13C12-123789-HxCDD	87	28 - 130
13C12-1234678-HpCDD	76	23 - 140
13C12-OCDD	66	17 - 157
13C12-2378-TCDF	73	24 - 169
13C12-12378-PeCDF	75	24 - 185
13C12-23478-PeCDF	73	21 - 178
13C12-123478-HxCDF	80	26 - 152
13C12-123678-HxCDF	82	26 - 123
13C12-234678-HxCDF	86	28 - 136
13C12-123789-HxCDF	99	29 - 147
13C12-1234678-HpCDF	80	28 - 143
13C12-1234789-HpCDF	69	26 - 138
13C12-OCDF	62	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present
S Saturation of detection signal

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-545-NBZ-SB-0.0-0.5MS Soil
SSFL Phase 3 NBZ

LL Sample # SW 7301927
LL Group # 1438596
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/04/2013 13:25 by KE

Submitted: 12/05/2013 09:50
Reported: 12/31/2013 07:50

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

54500 SDG#: PH139-10MS

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13344SLE026	12/24/2013 12:33	Mark A Clark	10
10811	BNA Soil Microwave SIM	SW-846 3546	1	13344SLE026	12/10/2013 17:45	Nicholas W Shroyer	1
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	133440007A	12/11/2013 16:08	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	133440007A	12/10/2013 16:00	JoElla L Rice	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	133450021A	12/13/2013 19:07	Heather E Williams	5
12959	EFH soil ext.(microwave)	SW-846 3546	1	133450021A	12/12/2013 03:00	Sherry L Morrow	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13347003	12/16/2013 22:09	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13347003	12/13/2013 11:30	Chin F Ly	1
01643	Aluminum	SW-846 6010C	1	133470637001	12/16/2013 17:56	Katlin N Cataldi	1
06944	Antimony	SW-846 6010C	1	133470637001	12/16/2013 17:56	Katlin N Cataldi	1
06935	Arsenic	SW-846 6010C	1	133470637001	12/16/2013 17:56	Katlin N Cataldi	1
06946	Barium	SW-846 6010C	1	133470637001	12/16/2013 17:56	Katlin N Cataldi	1
06947	Beryllium	SW-846 6010C	1	133470637001	12/16/2013 17:56	Katlin N Cataldi	1
07914	Boron	SW-846 6010C	1	133470637001	12/16/2013 17:56	Katlin N Cataldi	1
06949	Cadmium	SW-846 6010C	1	133470637001	12/16/2013 17:56	Katlin N Cataldi	1
01650	Calcium	SW-846 6010C	1	133470637001	12/16/2013 17:56	Katlin N Cataldi	1
06951	Chromium	SW-846 6010C	1	133470637001	12/16/2013 17:56	Katlin N Cataldi	1
06952	Cobalt	SW-846 6010C	1	133470637001	12/16/2013 17:56	Katlin N Cataldi	1
06953	Copper	SW-846 6010C	1	133470637001	12/16/2013 17:56	Katlin N Cataldi	1
01654	Iron	SW-846 6010C	1	133470637001	12/16/2013 17:56	Katlin N Cataldi	1
06955	Lead	SW-846 6010C	1	133470637001	12/16/2013 17:56	Katlin N Cataldi	1
01656	Lithium	SW-846 6010C	1	133470637001	12/16/2013 17:56	Katlin N Cataldi	1
01657	Magnesium	SW-846 6010C	1	133470637001	12/16/2013 17:56	Katlin N Cataldi	1
06958	Manganese	SW-846 6010C	1	133470637001	12/16/2013 17:56	Katlin N Cataldi	1
06960	Molybdenum	SW-846 6010C	1	133470637001	12/16/2013 17:56	Katlin N Cataldi	1
06961	Nickel	SW-846 6010C	1	133470637001	12/16/2013 17:56	Katlin N Cataldi	1
10145	Phosphorus	SW-846 6010C	1	133470637001	12/16/2013 17:56	Katlin N Cataldi	1
01662	Potassium	SW-846 6010C	1	133470637001	12/16/2013 17:56	Katlin N Cataldi	1
01667	Sodium	SW-846 6010C	1	133470637001	12/16/2013 17:56	Katlin N Cataldi	1
06969	Tin	SW-846 6010C	1	133470637001	12/16/2013 17:56	Katlin N Cataldi	1
06970	Titanium	SW-846 6010C	1	133470637001	12/16/2013 17:56	Katlin N Cataldi	1
06971	Vanadium	SW-846 6010C	1	133470637001	12/16/2013 17:56	Katlin N Cataldi	1
06972	Zinc	SW-846 6010C	1	133470637001	12/16/2013 17:56	Katlin N Cataldi	1
10146	Zirconium	SW-846 6010C	1	133470637001	12/16/2013 17:56	Katlin N Cataldi	1
06141	Selenium	SW-846 6020A	1	133470637001B	12/17/2013 18:19	John P Hook	2
06142	Silver	SW-846 6020A	1	133470637001A	12/17/2013 18:19	John P Hook	2
06144	Strontium	SW-846 6020A	1	133470637001A	12/17/2013 18:19	John P Hook	2

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Analysis Report

Sample Description: SL-545-NBZ-SB-0.0-0.5MS Soil
SSFL Phase 3 NBZ

LL Sample # SW 7301927
LL Group # 1438596
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/04/2013 13:25 by KE

Submitted: 12/05/2013 09:50
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CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

54500 SDG#: PH139-10MS

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06145	Thallium	SW-846 6020A	1	133470637001A	12/17/2013 18:19	John P Hook	2
00159	3a Mercury 7471A	SW-846 7471B	1	133470638001	12/17/2013 07:27	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	133470637001	12/15/2013 23:55	Annamaria Kuhns	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	133470638001	12/16/2013 02:30	Annamaria Kuhns	1
05895	18a Cyanide by EPA 9012B	SW-846 9012B	1	13349102201A	12/16/2013 09:31	K Robert Caulfeild-James	1
05896	Cyanide Solid Distillation	SW-846 9012B	1	13349102201A	12/15/2013 15:40	Joseph E McKenzie	1
11625	14a Moisture Content by 160.3	EPA 160.3 modified	1	13346162401A	12/12/2013 23:37	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-545-NBZ-SB-0.0-0.5MSD Soil
SSFL Phase 3 NBZ

LL Sample # SW 7301928
LL Group # 1438596
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/04/2013 13:25 by KE

Submitted: 12/05/2013 09:50
Reported: 12/31/2013 07:50

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

54500 SDG#: PH139-10MSD

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	33		18	7.2	10
12969	Acenaphthylene	208-96-8	32		18	3.6	10
12969	Anthracene	120-12-7	33		18	3.6	10
12969	Benzo(a)anthracene	56-55-3	43		18	7.2	10
12969	Benzo(a)pyrene	50-32-8	38		18	7.2	10
12969	Benzo(b)fluoranthene	205-99-2	53		18	7.2	10
12969	Benzo(e)pyrene	192-97-2	43	J	180	36	10
12969	Benzo(g,h,i)perylene	191-24-2	23		18	7.2	10
12969	Benzo(k)fluoranthene	207-08-9	39		18	7.2	10
12969	Butylbenzylphthalate	85-68-7	190	U	190	65	10
12969	Di-n-butylphthalate	84-74-2	190	U	190	65	10
12969	Chrysene	218-01-9	56		18	3.6	10
12969	Dibenz(a,h)anthracene	53-70-3	24		18	7.2	10
12969	Diethylphthalate	84-66-2	190	U	190	65	10
12969	Dimethylphthalate	131-11-3	190	U	190	65	10
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	190	U	190	65	10
12969	Fluoranthene	206-44-0	38		18	7.2	10
12969	Fluorene	86-73-7	33		18	7.2	10
12969	Indeno(1,2,3-cd)pyrene	193-39-5	25		18	7.2	10
12969	1-Methylnaphthalene	90-12-0	38		18	7.2	10
12969	2-Methylnaphthalene	91-57-6	39		18	7.2	10
12969	Naphthalene	91-20-3	37		18	7.2	10
12969	N-Nitrosodimethylamine	62-75-9	32		18	7.2	10
12969	Di-n-octylphthalate	117-84-0	190	U	190	65	10
12969	Phenanthrene	85-01-8	36		18	7.2	10
12969	Pyrene	129-00-0	43		18	7.2	10
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	36	U	36	11	1
13099	Aroclor 5442	12642-23-8	36	U	36	11	1
13099	Aroclor 5460	11126-42-4	36	U	36	11	1
13099	PCB-1016	12674-11-2	150		18	3.6	1
13099	PCB-1221	11104-28-2	18	U	18	5.5	1
13099	PCB-1232	11141-16-5	18	U	18	4.4	1
13099	PCB-1242	53469-21-9	18	U	18	4.4	1
13099	PCB-1248	12672-29-6	18	U	18	3.6	1
13099	PCB-1254	11097-69-1	18	U	18	4.8	1
13099	PCB-1260	11096-82-5	160		18	4.2	1
13099	PCB-1262	37324-23-5	18	U	18	3.6	1
13099	PCB-1268	11100-14-4	18	U	18	3.6	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	27	U	27	11	5
12952	EFH (C15-C20)	n.a.	39		27	11	5
12952	EFH (C21-C30)	n.a.	140		27	11	5
12952	EFH (C30-C40)	n.a.	410		54	22	5
12952	EFH (C8-C11)	n.a.	27	U	27	11	5
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-545-NBZ-SB-0.0-0.5MSD Soil
SSFL Phase 3 NBZ

LL Sample # SW 7301928
LL Group # 1438596
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/04/2013 13:25 by KE

Submitted: 12/05/2013 09:50
Reported: 12/31/2013 07:50

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

54500 SDG#: PH139-10MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**	**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	14,300	42.4	7.64	1
06944	Antimony	7440-36-0	32.9	4.24	0.784	1
06935	Arsenic	7440-38-2	18.9	4.24	0.742	1
06946	Barium	7440-39-3	285	1.06	0.0350	1
06947	Beryllium	7440-41-7	5.87	1.06	0.0710	1
07914	Boron	7440-42-8	207	10.6	0.890	1
06949	Cadmium	7440-43-9	5.65	1.06	0.0806	1
01650	Calcium	7440-70-2	6,000	21.2	3.54	1
06951	Chromium	7440-47-3	36.3	3.18	0.170	1
06952	Cobalt	7440-48-4	56.0	1.06	0.105	1
06953	Copper	7440-50-8	30.5	2.12	0.307	1
01654	Iron	7439-89-6	18,500	42.4	3.84	1
06955	Lead	7439-92-1	29.7	3.18	0.530	1
01656	Lithium	7439-93-2	130	4.2	0.36	1
01657	Magnesium	7439-95-4	4,510	10.6	1.77	1
06958	Manganese	7439-96-5	343	1.06	0.0880	1
06960	Molybdenum	7439-98-7	197	2.12	0.180	1
06961	Nickel	7440-02-0	63.3	2.12	0.138	1
10145	Phosphorus	7723-14-0	490	10.6	3.06	1
01662	Potassium	7440-09-7	4,650	106	8.84	1
01667	Sodium	7440-23-5	1,110	106	17.7	1
06969	Tin	7440-31-5	372	10.6	0.233	1
06970	Titanium	7440-32-6	1,300	1.06	0.180	1
06971	Vanadium	7440-62-2	82.8	1.06	0.138	1
06972	Zinc	7440-66-6	110	4.24	0.212	1
10146	Zirconium	7440-67-7	94.2	5.30	0.890	1
	SW-846 6020A		**mg/kg**	**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	2.54	0.424	0.106	2
06142	Silver	7440-22-4	11.0	0.212	0.0276	2
06144	Strontium	7440-24-6	41.9	0.424	0.0721	2
06145	Thallium	7440-28-0	0.630	0.212	0.0318	2
	SW-846 7471B		**mg/kg**	**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.378	0.0174	0.0105	1
Wet Chemistry	**EPA 160.3 modified**		**%**	**%**	**%**	
11625	14a Moisture Content by 160.3	n.a.	7.5	0.10	0.10	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-545-NBZ-SB-0.0-0.5MSD Soil
SSFL Phase 3 NBZ

LL Sample # SW 7301928
LL Group # 1438596
Account # 13013

Project Name: SSFL Phase 3 Sampling

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54500 SDG#: PH139-10MSD

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	19.0	B	1.07	0.0624	1
11031	12378-PeCDD	40321-76-4	102	B	5.33	0.0650	1
11031	123478-HxCDD	39227-28-6	107	B	5.33	0.0697	1
11031	123678-HxCDD	57653-85-7	105	B	5.33	0.0717	1
11031	123789-HxCDD	19408-74-3	105	B	5.33	0.0676	1
11031	1234678-HpCDD	35822-46-9	113	B	5.33	0.0636	1
11031	OCDD	3268-87-9	265	B	10.7	0.0662	1
11031	2378-TCDF	51207-31-9	20.1	B	1.07	0.0766	1
11031	12378-PeCDF	57117-41-6	106	B	5.33	0.0526	1
11031	23478-PeCDF	57117-31-4	107	B	5.33	0.0494	1
11031	123478-HxCDF	70648-26-9	108	B	5.33	0.0565	1
11031	123678-HxCDF	57117-44-9	108	B	5.33	0.0556	1
11031	123789-HxCDF	72918-21-9	110	B	5.33	0.0591	1
11031	234678-HxCDF	60851-34-5	108	B	5.33	0.0529	1
11031	1234678-HpCDF	67562-39-4	110	B	5.33	0.0531	1
11031	1234789-HpCDF	55673-89-7	109	B	5.33	0.0662	1
11031	OCDF	39001-02-0	213	B	10.7	0.0623	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	77	25 - 164
13C12-12378-PeCDD	72	25 - 181
13C12-123478-HxCDD	83	32 - 141
13C12-123678-HxCDD	84	28 - 130
13C12-123789-HxCDD	83	28 - 130
13C12-1234678-HpCDD	68	23 - 140
13C12-OCDD	58	17 - 157
13C12-2378-TCDF	72	24 - 169
13C12-12378-PeCDF	71	24 - 185
13C12-23478-PeCDF	70	21 - 178
13C12-123478-HxCDF	79	26 - 152
13C12-123678-HxCDF	79	26 - 123
13C12-234678-HxCDF	82	28 - 136
13C12-123789-HxCDF	81	29 - 147
13C12-1234678-HpCDF	73	28 - 143
13C12-1234789-HpCDF	62	26 - 138
13C12-OCDF	55	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present
S Saturation of detection signal

*=This limit was used in the evaluation of the final result

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Analysis Report

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SSFL Phase 3 NBZ

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LL Group # 1438596
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Project Name: SSFL Phase 3 Sampling

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54500 SDG#: PH139-10MSD

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13344SLE026	12/24/2013 13:08	Mark A Clark	10
10811	BNA Soil Microwave SIM	SW-846 3546	1	13344SLE026	12/10/2013 17:45	Nicholas W Shroyer	1
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	133440007A	12/11/2013 16:27	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	133440007A	12/10/2013 16:00	JoElla L Rice	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	133450021A	12/13/2013 19:29	Heather E Williams	5
12959	EFH soil ext.(microwave)	SW-846 3546	1	133450021A	12/12/2013 03:00	Sherry L Morrow	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13347003	12/16/2013 23:06	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13347003	12/13/2013 11:30	Chin F Ly	1
01643	Aluminum	SW-846 6010C	1	133470637001	12/16/2013 18:00	Katlin N Cataldi	1
06944	Antimony	SW-846 6010C	1	133470637001	12/16/2013 18:00	Katlin N Cataldi	1
06935	Arsenic	SW-846 6010C	1	133470637001	12/16/2013 18:00	Katlin N Cataldi	1
06946	Barium	SW-846 6010C	1	133470637001	12/16/2013 18:00	Katlin N Cataldi	1
06947	Beryllium	SW-846 6010C	1	133470637001	12/16/2013 18:00	Katlin N Cataldi	1
07914	Boron	SW-846 6010C	1	133470637001	12/16/2013 18:00	Katlin N Cataldi	1
06949	Cadmium	SW-846 6010C	1	133470637001	12/16/2013 18:00	Katlin N Cataldi	1
01650	Calcium	SW-846 6010C	1	133470637001	12/16/2013 18:00	Katlin N Cataldi	1
06951	Chromium	SW-846 6010C	1	133470637001	12/16/2013 18:00	Katlin N Cataldi	1
06952	Cobalt	SW-846 6010C	1	133470637001	12/16/2013 18:00	Katlin N Cataldi	1
06953	Copper	SW-846 6010C	1	133470637001	12/16/2013 18:00	Katlin N Cataldi	1
01654	Iron	SW-846 6010C	1	133470637001	12/16/2013 18:00	Katlin N Cataldi	1
06955	Lead	SW-846 6010C	1	133470637001	12/16/2013 18:00	Katlin N Cataldi	1
01656	Lithium	SW-846 6010C	1	133470637001	12/16/2013 18:00	Katlin N Cataldi	1
01657	Magnesium	SW-846 6010C	1	133470637001	12/16/2013 18:00	Katlin N Cataldi	1
06958	Manganese	SW-846 6010C	1	133470637001	12/16/2013 18:00	Katlin N Cataldi	1
06960	Molybdenum	SW-846 6010C	1	133470637001	12/16/2013 18:00	Katlin N Cataldi	1
06961	Nickel	SW-846 6010C	1	133470637001	12/16/2013 18:00	Katlin N Cataldi	1
10145	Phosphorus	SW-846 6010C	1	133470637001	12/16/2013 18:00	Katlin N Cataldi	1
01662	Potassium	SW-846 6010C	1	133470637001	12/16/2013 18:00	Katlin N Cataldi	1
01667	Sodium	SW-846 6010C	1	133470637001	12/16/2013 18:00	Katlin N Cataldi	1
06969	Tin	SW-846 6010C	1	133470637001	12/16/2013 18:00	Katlin N Cataldi	1
06970	Titanium	SW-846 6010C	1	133470637001	12/16/2013 18:00	Katlin N Cataldi	1
06971	Vanadium	SW-846 6010C	1	133470637001	12/16/2013 18:00	Katlin N Cataldi	1
06972	Zinc	SW-846 6010C	1	133470637001	12/16/2013 18:00	Katlin N Cataldi	1
10146	Zirconium	SW-846 6010C	1	133470637001	12/16/2013 18:00	Katlin N Cataldi	1
06141	Selenium	SW-846 6020A	1	133470637001B	12/17/2013 18:22	John P Hook	2
06142	Silver	SW-846 6020A	1	133470637001A	12/17/2013 18:22	John P Hook	2
06144	Strontium	SW-846 6020A	1	133470637001A	12/17/2013 18:22	John P Hook	2

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-545-NBZ-SB-0.0-0.5MSD Soil
SSFL Phase 3 NBZ

LL Sample # SW 7301928
LL Group # 1438596
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/04/2013 13:25 by KE

Submitted: 12/05/2013 09:50
Reported: 12/31/2013 07:50

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

54500 SDG#: PH139-10MSD

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06145	Thallium	SW-846 6020A	1	133470637001A	12/17/2013 18:22	John P Hook	2
00159	3a Mercury 7471A	SW-846 7471B	1	133470638001	12/17/2013 07:29	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	133470637001	12/15/2013 23:55	Annamaria Kuhns	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	133470638001	12/16/2013 02:30	Annamaria Kuhns	1
11625	14a Moisture Content by 160.3	EPA 160.3 modified	1	13346162401A	12/12/2013 23:37	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-545-NBZ-SB-0.0-0.5DUP Soil
SSFL Phase 3 NBZ

LL Sample # SW 7301929
LL Group # 1438596
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/04/2013 13:25 by KE

Submitted: 12/05/2013 09:50
Reported: 12/31/2013 07:50

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

54500 SDG#: PH139-10DUP

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	10,700		42.4	7.64	1
06944	Antimony	7440-36-0	4.24	U	4.24	0.784	1
06935	Arsenic	7440-38-2	3.08	J	4.24	0.742	1
06946	Barium	7440-39-3	69.0		1.06	0.0350	1
06947	Beryllium	7440-41-7	0.425	J	1.06	0.0710	1
07914	Boron	7440-42-8	4.69	J	10.6	0.890	1
06949	Cadmium	7440-43-9	0.421	J	1.06	0.0806	1
01650	Calcium	7440-70-2	5,120		21.2	3.54	1
06951	Chromium	7440-47-3	16.3		3.18	0.170	1
06952	Cobalt	7440-48-4	4.36		1.06	0.105	1
06953	Copper	7440-50-8	4.36		2.12	0.307	1
01654	Iron	7439-89-6	17,200		42.4	3.84	1
06955	Lead	7439-92-1	13.4		3.18	0.530	1
01656	Lithium	7439-93-2	20.7		4.2	0.36	1
01657	Magnesium	7439-95-4	4,020		10.6	1.77	1
06958	Manganese	7439-96-5	260		1.06	0.0880	1
06960	Molybdenum	7439-98-7	0.412	J	2.12	0.180	1
06961	Nickel	7440-02-0	9.80		2.12	0.138	1
10145	Phosphorus	7723-14-0	387		10.6	3.06	1
01662	Potassium	7440-09-7	3,290		106	8.84	1
01667	Sodium	7440-23-5	73.7	J	106	17.7	1
06969	Tin	7440-31-5	2.95	J	10.6	0.233	1
06970	Titanium	7440-32-6	884		1.06	0.180	1
06971	Vanadium	7440-62-2	28.6		1.06	0.138	1
06972	Zinc	7440-66-6	53.8		4.24	0.212	1
10146	Zirconium	7440-67-7	1.58	J	5.30	0.890	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.204	J	0.424	0.106	2
06142	Silver	7440-22-4	0.220		0.212	0.0276	2
06144	Strontium	7440-24-6	26.1		0.424	0.0721	2
06145	Thallium	7440-28-0	0.204	J	0.212	0.0318	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.164		0.0174	0.0104	1
Wet Chemistry	**SW-846 9012B**		**mg/kg**		**mg/kg**	**mg/kg**	
05895	18a Cyanide by EPA 9012B	57-12-5	0.24	J	0.54	0.19	1
	SW-846 9045D modified		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045D	n.a.	6.97		0.0100	0.0100	1
	The pH was measured in water at 21.1 C.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11625	14a Moisture Content by 160.3	n.a.	7.5		0.10	0.10	1
11626	14a Moisture Content by 160.3	n.a.	7.0		0.10	0.10	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-545-NBZ-SB-0.0-0.5DUP Soil
SSFL Phase 3 NBZ

LL Sample # SW 7301929
LL Group # 1438596
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/04/2013 13:25 by KE

Submitted: 12/05/2013 09:50
Reported: 12/31/2013 07:50

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

54500 SDG#: PH139-10DUP

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Wet Chemistry	**EPA 160.3 modified**		%	%	%	

The duplicate moisture value is provided to assess the precision of the moisture test. For comparability purposes, the initial moisture determination is the value used to perform dry weight calculations.

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01643	Aluminum	SW-846 6010C	1	133470637001	12/16/2013 17:53	Katlin N Cataldi	1
06944	Antimony	SW-846 6010C	1	133470637001	12/16/2013 17:53	Katlin N Cataldi	1
06935	Arsenic	SW-846 6010C	1	133470637001	12/16/2013 17:53	Katlin N Cataldi	1
06946	Barium	SW-846 6010C	1	133470637001	12/16/2013 17:53	Katlin N Cataldi	1
06947	Beryllium	SW-846 6010C	1	133470637001	12/16/2013 17:53	Katlin N Cataldi	1
07914	Boron	SW-846 6010C	1	133470637001	12/16/2013 17:53	Katlin N Cataldi	1
06949	Cadmium	SW-846 6010C	1	133470637001	12/16/2013 17:53	Katlin N Cataldi	1
01650	Calcium	SW-846 6010C	1	133470637001	12/16/2013 17:53	Katlin N Cataldi	1
06951	Chromium	SW-846 6010C	1	133470637001	12/16/2013 17:53	Katlin N Cataldi	1
06952	Cobalt	SW-846 6010C	1	133470637001	12/16/2013 17:53	Katlin N Cataldi	1
06953	Copper	SW-846 6010C	1	133470637001	12/16/2013 17:53	Katlin N Cataldi	1
01654	Iron	SW-846 6010C	1	133470637001	12/16/2013 17:53	Katlin N Cataldi	1
06955	Lead	SW-846 6010C	1	133470637001	12/16/2013 17:53	Katlin N Cataldi	1
01656	Lithium	SW-846 6010C	1	133470637001	12/16/2013 17:53	Katlin N Cataldi	1
01657	Magnesium	SW-846 6010C	1	133470637001	12/16/2013 17:53	Katlin N Cataldi	1
06958	Manganese	SW-846 6010C	1	133470637001	12/16/2013 17:53	Katlin N Cataldi	1
06960	Molybdenum	SW-846 6010C	1	133470637001	12/16/2013 17:53	Katlin N Cataldi	1
06961	Nickel	SW-846 6010C	1	133470637001	12/16/2013 17:53	Katlin N Cataldi	1
10145	Phosphorus	SW-846 6010C	1	133470637001	12/16/2013 17:53	Katlin N Cataldi	1
01662	Potassium	SW-846 6010C	1	133470637001	12/16/2013 17:53	Katlin N Cataldi	1
01667	Sodium	SW-846 6010C	1	133470637001	12/16/2013 17:53	Katlin N Cataldi	1
06969	Tin	SW-846 6010C	1	133470637001	12/16/2013 17:53	Katlin N Cataldi	1
06970	Titanium	SW-846 6010C	1	133470637001	12/16/2013 17:53	Katlin N Cataldi	1
06971	Vanadium	SW-846 6010C	1	133470637001	12/16/2013 17:53	Katlin N Cataldi	1
06972	Zinc	SW-846 6010C	1	133470637001	12/16/2013 17:53	Katlin N Cataldi	1
10146	Zirconium	SW-846 6010C	1	133470637001	12/16/2013 17:53	Katlin N Cataldi	1
06141	Selenium	SW-846 6020A	1	133470637001B	12/17/2013 18:17	John P Hook	2
06142	Silver	SW-846 6020A	1	133470637001A	12/17/2013 18:17	John P Hook	2
06144	Strontium	SW-846 6020A	1	133470637001A	12/17/2013 18:17	John P Hook	2
06145	Thallium	SW-846 6020A	1	133470637001A	12/17/2013 18:17	John P Hook	2
00159	3a Mercury 7471A	SW-846 7471B	1	133470638001	12/17/2013 07:25	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	133470637001	12/15/2013 23:55	Annamaria Kuhns	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	133470638001	12/16/2013 02:30	Annamaria Kuhns	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-545-NBZ-SB-0.0-0.5DUP Soil
SSFL Phase 3 NBZ

LL Sample # SW 7301929
LL Group # 1438596
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/04/2013 13:25 by KE

Submitted: 12/05/2013 09:50
Reported: 12/31/2013 07:50

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

54500 SDG#: PH139-10DUP

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
05895	18a Cyanide by EPA 9012B	SW-846 9012B	1	13349102201A	12/16/2013 09:32	K Robert Caulfeild-James	1
05896	Cyanide Solid Distillation	SW-846 9012B	1	13349102201A	12/15/2013 15:40	Joseph E McKenzie	1
00394	15a pH by 9045D	SW-846 9045D modified	1	13339039402A	12/05/2013 21:20	Michelle L Lalli	1
11625	14a Moisture Content by 160.3	EPA 160.3 modified	1	13346162401A	12/12/2013 23:37	Scott W Freisher	1
11626	14a Moisture Content by 160.3	EPA 160.3 modified	1	13346162401A	12/12/2013 23:37	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-845-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 NBZ

LL Sample # SW 7301930
LL Group # 1438596
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/04/2013 13:30 by KE

Submitted: 12/05/2013 09:50
Reported: 12/31/2013 07:50

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

84500 SDG#: PH139-11

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	18	U	18	7.1	10
12969	Acenaphthylene	208-96-8	18	U	18	3.5	10
12969	Anthracene	120-12-7	18	U	18	3.5	10
12969	Benzo(a)anthracene	56-55-3	18	U	18	7.1	10
12969	Benzo(a)pyrene	50-32-8	18	U	18	7.1	10
12969	Benzo(b)fluoranthene	205-99-2	18	U	18	7.1	10
12969	Benzo(e)pyrene	192-97-2	180	U	180	35	10
12969	Benzo(g,h,i)perylene	191-24-2	18	U	18	7.1	10
12969	Benzo(k)fluoranthene	207-08-9	18	U	18	7.1	10
12969	Butylbenzylphthalate	85-68-7	190	U	190	64	10
12969	Di-n-butylphthalate	84-74-2	190	U	190	64	10
12969	Chrysene	218-01-9	6.9	J	18	3.5	10
12969	Dibenz(a,h)anthracene	53-70-3	18	U	18	7.1	10
12969	Diethylphthalate	84-66-2	190	U	190	64	10
12969	Dimethylphthalate	131-11-3	190	U	190	64	10
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	190	U	190	64	10
12969	Fluoranthene	206-44-0	18	U	18	7.1	10
12969	Fluorene	86-73-7	18	U	18	7.1	10
12969	Indeno(1,2,3-cd)pyrene	193-39-5	18	U	18	7.1	10
12969	1-Methylnaphthalene	90-12-0	18	U	18	7.1	10
12969	2-Methylnaphthalene	91-57-6	18	U	18	7.1	10
12969	Naphthalene	91-20-3	18	U	18	7.1	10
12969	N-Nitrosodimethylamine	62-75-9	18	U	18	7.1	10
12969	Di-n-octylphthalate	117-84-0	190	U	190	64	10
12969	Phenanthrene	85-01-8	18	U	18	7.1	10
12969	Pyrene	129-00-0	18	U	18	7.1	10
	Reporting limits were raised due to interference from the sample matrix.						
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	35	U	35	11	1
13099	Aroclor 5442	12642-23-8	35	U	35	11	1
13099	Aroclor 5460	11126-42-4	35	U	35	11	1
13099	PCB-1016	12674-11-2	18	U	18	3.5	1
13099	PCB-1221	11104-28-2	18	U	18	5.4	1
13099	PCB-1232	11141-16-5	18	U	18	4.3	1
13099	PCB-1242	53469-21-9	18	U	18	4.3	1
13099	PCB-1248	12672-29-6	18	U	18	3.5	1
13099	PCB-1254	11097-69-1	18	U	18	4.7	1
13099	PCB-1260	11096-82-5	18	U	18	4.1	1
13099	PCB-1262	37324-23-5	18	U	18	3.5	1
13099	PCB-1268	11100-14-4	18	U	18	3.5	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	26	U	26	11	5
12952	EFH (C15-C20)	n.a.	33		26	11	5
12952	EFH (C21-C30)	n.a.	200		26	11	5
12952	EFH (C30-C40)	n.a.	460		53	21	5
12952	EFH (C8-C11)	n.a.	26	U	26	11	5

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-845-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 NBZ

LL Sample # SW 7301930
LL Group # 1438596
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/04/2013 13:30 by KE

Submitted: 12/05/2013 09:50
Reported: 12/31/2013 07:50

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

84500 SDG#: PH139-11

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	11,800		41.5	7.49	1
06944	Antimony	7440-36-0	4.15	U	4.15	0.769	1
06935	Arsenic	7440-38-2	2.90	J	4.15	0.727	1
06946	Barium	7440-39-3	77.1		1.04	0.0343	1
06947	Beryllium	7440-41-7	0.466	J	1.04	0.0696	1
07914	Boron	7440-42-8	5.57	J	10.4	0.872	1
06949	Cadmium	7440-43-9	0.466	J	1.04	0.0789	1
01650	Calcium	7440-70-2	5,200		20.8	3.47	1
06951	Chromium	7440-47-3	17.7		3.12	0.166	1
06952	Cobalt	7440-48-4	4.62		1.04	0.103	1
06953	Copper	7440-50-8	4.80		2.08	0.301	1
01654	Iron	7439-89-6	18,000		41.5	3.76	1
06955	Lead	7439-92-1	15.1		3.12	0.519	1
01656	Lithium	7439-93-2	22.0		4.2	0.35	1
01657	Magnesium	7439-95-4	4,070		10.4	1.73	1
06958	Manganese	7439-96-5	273		1.04	0.0862	1
06960	Molybdenum	7439-98-7	0.561	J	2.08	0.177	1
06961	Nickel	7440-02-0	10.3		2.08	0.135	1
10145	Phosphorus	7723-14-0	372		10.4	3.00	1
01662	Potassium	7440-09-7	3,070		104	8.66	1
01667	Sodium	7440-23-5	92.1	J	104	17.3	1
06969	Tin	7440-31-5	2.85	J	10.4	0.228	1
06970	Titanium	7440-32-6	1,010		1.04	0.177	1
06971	Vanadium	7440-62-2	29.6		1.04	0.135	1
06972	Zinc	7440-66-6	63.6		4.15	0.208	1
10146	Zirconium	7440-67-7	2.00	J	5.19	0.872	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.189	J	0.415	0.104	2
06142	Silver	7440-22-4	0.233		0.208	0.0270	2
06144	Strontium	7440-24-6	29.2		0.415	0.0706	2
06145	Thallium	7440-28-0	0.204	J	0.208	0.0312	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.284		0.0173	0.0104	1
Wet Chemistry	**SW-846 9012B**		**mg/kg**		**mg/kg**	**mg/kg**	
05895	18a Cyanide by EPA 9012B	57-12-5	0.53	U	0.53	0.19	1
	SW-846 9045D modified		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045D	n.a.	7.06		0.0100	0.0100	1
	The pH was measured in water at 21.2 C.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	5.6		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

*=This limit was used in the evaluation of the final result

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Analysis Report

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Sample Description: SL-845-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 NBZ

LL Sample # SW 7301930
LL Group # 1438596
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/04/2013 13:30 by KE

Submitted: 12/05/2013 09:50
Reported: 12/31/2013 07:50

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

84500 SDG#: PH139-11

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor

*=This limit was used in the evaluation of the final result

Sample Description: SL-845-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 NBZ

LL Sample # SW 7301930
LL Group # 1438596
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/04/2013 13:30 by KE

Submitted: 12/05/2013 09:50
Reported: 12/31/2013 07:50

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

84500 SDG#: PH139-11

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0848 JBQ	1.05	0.0552	1
11031	12378-PeCDD	40321-76-4	0.688 JBQ	5.27	0.0711	1
11031	123478-HxCDD	39227-28-6	0.589 JB	5.27	0.0632	1
11031	123678-HxCDD	57653-85-7	1.10 JB	5.27	0.0678	1
11031	123789-HxCDD	19408-74-3	0.926 JB	5.27	0.0612	1
11031	1234678-HpCDD	35822-46-9	13.2 B	5.27	0.0463	1
11031	OCDD	3268-87-9	106 B	10.5	0.0552	1
11031	2378-TCDF	51207-31-9	0.487 JBQ	1.05	0.0849	1
11031	12378-PeCDF	57117-41-6	1.13 JB	5.27	0.0494	1
11031	23478-PeCDF	57117-31-4	0.995 JB	5.27	0.0468	1
11031	123478-HxCDF	70648-26-9	0.660 JBQ	5.27	0.0565	1
11031	123678-HxCDF	57117-44-9	0.682 JB	5.27	0.0536	1
11031	123789-HxCDF	72918-21-9	0.466 JB	5.27	0.0558	1
11031	234678-HxCDF	60851-34-5	0.727 JB	5.27	0.0503	1
11031	1234678-HpCDF	67562-39-4	4.26 JB	5.27	0.0356	1
11031	1234789-HpCDF	55673-89-7	0.597 JB	5.27	0.0434	1
11031	OCDF	39001-02-0	8.17 JB	10.5	0.0445	1
D/F Toxic Equivalents	**EPA 1613B**		ng/kg	ng/kg	ng/kg	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.997			1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	79	25 - 164
13C12-12378-PeCDD	71	25 - 181
13C12-123478-HxCDD	89	32 - 141
13C12-123678-HxCDD	87	28 - 130
13C12-123789-HxCDD	86	28 - 130
13C12-1234678-HpCDD	74	23 - 140
13C12-OCDD	66	17 - 157
13C12-2378-TCDF	74	24 - 169
13C12-12378-PeCDF	71	24 - 185
13C12-23478-PeCDF	70	21 - 178
13C12-123478-HxCDF	81	26 - 152
13C12-123678-HxCDF	82	26 - 123
13C12-234678-HxCDF	86	28 - 136
13C12-123789-HxCDF	84	29 - 147
13C12-1234678-HpCDF	76	28 - 143
13C12-1234789-HpCDF	67	26 - 138
13C12-OCDF	63	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column

*=This limit was used in the evaluation of the final result

Sample Description: SL-845-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 NBZ

LL Sample # SW 7301930
LL Group # 1438596
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/04/2013 13:30 by KE

Submitted: 12/05/2013 09:50
Reported: 12/31/2013 07:50

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

84500 SDG#: PH139-11

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

Q EMPC - Estimated Maximum Possible Concentration
F Interference is present
S Saturation of detection signal

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-845-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 NBZ

LL Sample # SW 7301930
LL Group # 1438596
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/04/2013 13:30 by KE

Submitted: 12/05/2013 09:50
Reported: 12/31/2013 07:50

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

84500 SDG#: PH139-11

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13344SLE026	12/24/2013 13:42	Mark A Clark	10
10811	BNA Soil Microwave SIM	SW-846 3546	1	13344SLE026	12/10/2013 17:45	Nicholas W Shroyer	1
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	133440007A	12/11/2013 16:45	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	133440007A	12/10/2013 16:00	JoElla L Rice	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	133450021A	12/13/2013 19:50	Heather E Williams	5
12959	EFH soil ext.(microwave)	SW-846 3546	1	133450021A	12/12/2013 03:00	Sherry L Morrow	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13347003	12/17/2013 00:02	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13347003	12/13/2013 11:30	Chin F Ly	1
01643	Aluminum	SW-846 6010C	1	133470637001	12/16/2013 18:08	Katlin N Cataldi	1
06944	Antimony	SW-846 6010C	1	133470637001	12/16/2013 18:08	Katlin N Cataldi	1
06935	Arsenic	SW-846 6010C	1	133470637001	12/16/2013 18:08	Katlin N Cataldi	1
06946	Barium	SW-846 6010C	1	133470637001	12/16/2013 18:08	Katlin N Cataldi	1
06947	Beryllium	SW-846 6010C	1	133470637001	12/16/2013 18:08	Katlin N Cataldi	1
07914	Boron	SW-846 6010C	1	133470637001	12/16/2013 18:08	Katlin N Cataldi	1
06949	Cadmium	SW-846 6010C	1	133470637001	12/16/2013 18:08	Katlin N Cataldi	1
01650	Calcium	SW-846 6010C	1	133470637001	12/16/2013 18:08	Katlin N Cataldi	1
06951	Chromium	SW-846 6010C	1	133470637001	12/16/2013 18:08	Katlin N Cataldi	1
06952	Cobalt	SW-846 6010C	1	133470637001	12/16/2013 18:08	Katlin N Cataldi	1
06953	Copper	SW-846 6010C	1	133470637001	12/16/2013 18:08	Katlin N Cataldi	1
01654	Iron	SW-846 6010C	1	133470637001	12/16/2013 18:08	Katlin N Cataldi	1
06955	Lead	SW-846 6010C	1	133470637001	12/16/2013 18:08	Katlin N Cataldi	1
01656	Lithium	SW-846 6010C	1	133470637001	12/16/2013 18:08	Katlin N Cataldi	1
01657	Magnesium	SW-846 6010C	1	133470637001	12/16/2013 18:08	Katlin N Cataldi	1
06958	Manganese	SW-846 6010C	1	133470637001	12/16/2013 18:08	Katlin N Cataldi	1
06960	Molybdenum	SW-846 6010C	1	133470637001	12/16/2013 18:08	Katlin N Cataldi	1
06961	Nickel	SW-846 6010C	1	133470637001	12/16/2013 18:08	Katlin N Cataldi	1
10145	Phosphorus	SW-846 6010C	1	133470637001	12/16/2013 18:08	Katlin N Cataldi	1
01662	Potassium	SW-846 6010C	1	133470637001	12/16/2013 18:08	Katlin N Cataldi	1
01667	Sodium	SW-846 6010C	1	133470637001	12/16/2013 18:08	Katlin N Cataldi	1
06969	Tin	SW-846 6010C	1	133470637001	12/16/2013 18:08	Katlin N Cataldi	1
06970	Titanium	SW-846 6010C	1	133470637001	12/16/2013 18:08	Katlin N Cataldi	1
06971	Vanadium	SW-846 6010C	1	133470637001	12/16/2013 18:08	Katlin N Cataldi	1
06972	Zinc	SW-846 6010C	1	133470637001	12/16/2013 18:08	Katlin N Cataldi	1
10146	Zirconium	SW-846 6010C	1	133470637001	12/16/2013 18:08	Katlin N Cataldi	1
06141	Selenium	SW-846 6020A	1	133470637001B	12/17/2013 18:26	John P Hook	2
06142	Silver	SW-846 6020A	1	133470637001A	12/17/2013 18:26	John P Hook	2
06144	Strontium	SW-846 6020A	1	133470637001A	12/17/2013 18:26	John P Hook	2

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-845-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 NBZ

LL Sample # SW 7301930
LL Group # 1438596
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/04/2013 13:30 by KE

Submitted: 12/05/2013 09:50
Reported: 12/31/2013 07:50

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

84500 SDG#: PH139-11

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06145	Thallium	SW-846 6020A	1	133470637001A	12/17/2013 18:26	John P Hook	2
00159	3a Mercury 7471A	SW-846 7471B	1	133470638001	12/17/2013 07:31	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	133470637001	12/15/2013 23:55	Annamaria Kuhns	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	133470638001	12/16/2013 02:30	Annamaria Kuhns	1
05895	18a Cyanide by EPA 9012B	SW-846 9012B	1	13349102201A	12/16/2013 09:33	K Robert Caulfeild-James	1
05896	Cyanide Solid Distillation	SW-846 9012B	1	13349102201A	12/15/2013 15:40	Joseph E McKenzie	1
00394	15a pH by 9045D	SW-846 9045D modified	1	13339039402A	12/05/2013 21:20	Michelle L Lalli	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13346162401A	12/12/2013 23:37	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-511-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 NBZ

LL Sample # SW 7301931
LL Group # 1438596
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/04/2013 12:40 by KE

Submitted: 12/05/2013 09:50
Reported: 12/31/2013 07:50

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51100 SDG#: PH139-12

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.70	1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.35	1
12969	Anthracene	120-12-7	1.7	U	1.7	0.35	1
12969	Benzo(a)anthracene	56-55-3	1.7	U	1.7	0.70	1
12969	Benzo(a)pyrene	50-32-8	1.7	U	1.7	0.70	1
12969	Benzo(b)fluoranthene	205-99-2	2.3		1.7	0.70	1
12969	Benzo(e)pyrene	192-97-2	18	U	18	3.5	1
12969	Benzo(g,h,i)perylene	191-24-2	1.7	U	1.7	0.70	1
12969	Benzo(k)fluoranthene	207-08-9	0.71	J	1.7	0.70	1
12969	Butylbenzylphthalate	85-68-7	19	U	19	6.3	1
12969	Di-n-butylphthalate	84-74-2	19	U	19	6.3	1
12969	Chrysene	218-01-9	2.7		1.7	0.35	1
12969	Dibenz(a,h)anthracene	53-70-3	1.7	U	1.7	0.70	1
12969	Diethylphthalate	84-66-2	19	U	19	6.3	1
12969	Dimethylphthalate	131-11-3	19	U	19	6.3	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	19	U	19	6.3	1
12969	Fluoranthene	206-44-0	1.4	J	1.7	0.70	1
12969	Fluorene	86-73-7	1.7	U	1.7	0.70	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	0.70	J	1.7	0.70	1
12969	1-Methylnaphthalene	90-12-0	1.1	J	1.7	0.70	1
12969	2-Methylnaphthalene	91-57-6	1.9		1.7	0.70	1
12969	Naphthalene	91-20-3	2.6		1.7	0.70	1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.70	1
12969	Di-n-octylphthalate	117-84-0	19	U	19	6.3	1
12969	Phenanthrene	85-01-8	1.4	J	1.7	0.70	1
12969	Pyrene	129-00-0	1.4	J	1.7	0.70	1

The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance:
pyrene

GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.2	U	5.2	2.1	1
12952	EFH (C15-C20)	n.a.	5.9		5.2	2.1	1
12952	EFH (C21-C30)	n.a.	23		5.2	2.1	1
12952	EFH (C30-C40)	n.a.	59		10	4.2	1
12952	EFH (C8-C11)	n.a.	5.2	U	5.2	2.1	1
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	21,300		41.8	7.53	1
06944	Antimony	7440-36-0	4.18	U	4.18	0.772	1
06935	Arsenic	7440-38-2	6.05		4.18	0.731	1
06946	Barium	7440-39-3	129		1.04	0.0344	1
06947	Beryllium	7440-41-7	0.950	J	1.04	0.0699	1
07914	Boron	7440-42-8	10.4	U	10.4	0.877	1
06949	Cadmium	7440-43-9	0.489	J	1.04	0.0793	1
01650	Calcium	7440-70-2	4,400		20.9	3.49	1
06951	Chromium	7440-47-3	21.5		3.13	0.167	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-511-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 NBZ

LL Sample # SW 7301931
LL Group # 1438596
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/04/2013 12:40 by KE

Submitted: 12/05/2013 09:50
Reported: 12/31/2013 07:50

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51100 SDG#: PH139-12

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
06952	Cobalt	7440-48-4	8.18		1.04	0.103	1
06953	Copper	7440-50-8	7.76		2.09	0.303	1
01654	Iron	7439-89-6	29,000		83.5	7.56	2
06955	Lead	7439-92-1	19.7		3.13	0.522	1
01656	Lithium	7439-93-2	43.2		4.2	0.35	1
01657	Magnesium	7439-95-4	5,580		10.4	1.74	1
06958	Manganese	7439-96-5	496		1.04	0.0866	1
06960	Molybdenum	7439-98-7	0.396	J	2.09	0.177	1
06961	Nickel	7440-02-0	17.1		2.09	0.136	1
10145	Phosphorus	7723-14-0	557		10.4	3.02	1
01662	Potassium	7440-09-7	5,660		104	8.71	1
01667	Sodium	7440-23-5	99.6	J	104	17.4	1
06969	Tin	7440-31-5	3.49	J	10.4	0.230	1
06970	Titanium	7440-32-6	1,340		1.04	0.177	1
06971	Vanadium	7440-62-2	43.3		1.04	0.136	1
06972	Zinc	7440-66-6	84.5		4.18	0.209	1
10146	Zirconium	7440-67-7	2.33	J	5.22	0.877	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.402	J	0.418	0.104	2
06142	Silver	7440-22-4	0.0824	J	0.209	0.0271	2
06144	Strontium	7440-24-6	31.0		0.418	0.0710	2
06145	Thallium	7440-28-0	0.369		0.209	0.0313	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0195		0.0165	0.0099	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045D	n.a.	6.53		0.0100	0.0100	1
	The pH was measured in water at 20.8 C.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	4.2		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

*=This limit was used in the evaluation of the final result

Sample Description: SL-511-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 NBZ

LL Sample # SW 7301931
LL Group # 1438596
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/04/2013 12:40 by KE

Submitted: 12/05/2013 09:50
Reported: 12/31/2013 07:50

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51100 SDG#: PH139-12

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	1.00	U	1.00	0.0500	1
11031	12378-PeCDD	40321-76-4	0.0866	JBQ	5.01	0.0395	1
11031	123478-HxCDD	39227-28-6	0.0648	JB	5.01	0.0469	1
11031	123678-HxCDD	57653-85-7	0.300	JB	5.01	0.0497	1
11031	123789-HxCDD	19408-74-3	0.263	JBQ	5.01	0.0446	1
11031	1234678-HpCDD	35822-46-9	2.23	JB	5.01	0.0357	1
11031	OCDD	3268-87-9	12.4	B	10.0	0.0410	1
11031	2378-TCDF	51207-31-9	0.325	JBQ	1.00	0.0747	1
11031	12378-PeCDF	57117-41-6	0.169	JBQ	5.01	0.0331	1
11031	23478-PeCDF	57117-31-4	0.377	JB	5.01	0.0319	1
11031	123478-HxCDF	70648-26-9	0.165	JB	5.01	0.0438	1
11031	123678-HxCDF	57117-44-9	0.150	JB	5.01	0.0407	1
11031	123789-HxCDF	72918-21-9	0.152	JBQ	5.01	0.0455	1
11031	234678-HxCDF	60851-34-5	0.176	JB	5.01	0.0424	1
11031	1234678-HpCDF	67562-39-4	0.569	JB	5.01	0.0241	1
11031	1234789-HpCDF	55673-89-7	0.0983	JBQ	5.01	0.0307	1
11031	OCDF	39001-02-0	0.821	JBQ	10.0	0.0494	1
D/F Toxic Equivalents	**EPA 1613B**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.231				1

Labeled Compounds	**%Rec**	**Windows**
13C12-2378-TCDD	70	25 - 164
13C12-12378-PeCDD	67	25 - 181
13C12-123478-HxCDD	81	32 - 141
13C12-123678-HxCDD	80	28 - 130
13C12-123789-HxCDD	79	28 - 130
13C12-1234678-HpCDD	67	23 - 140
13C12-OCDD	57	17 - 157
13C12-2378-TCDF	64	24 - 169
13C12-12378-PeCDF	66	24 - 185
13C12-23478-PeCDF	63	21 - 178
13C12-123478-HxCDF	74	26 - 152
13C12-123678-HxCDF	77	26 - 123
13C12-234678-HxCDF	77	28 - 136
13C12-123789-HxCDF	77	29 - 147
13C12-1234678-HpCDF	73	28 - 143
13C12-1234789-HpCDF	59	26 - 138
13C12-OCDF	51	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column

*=This limit was used in the evaluation of the final result

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Lancaster Laboratories
Environmental

Analysis Report

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Sample Description: SL-511-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 NBZ

LL Sample # SW 7301931
LL Group # 1438596
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/04/2013 12:40 by KE

Submitted: 12/05/2013 09:50
Reported: 12/31/2013 07:50

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51100 SDG#: PH139-12

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

Q EMPC - Estimated Maximum Possible Concentration
F Interference is present
S Saturation of detection signal

*=This limit was used in the evaluation of the final result

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Lancaster Laboratories Environmental
2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Analysis Report

Sample Description: SL-511-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 NBZ

LL Sample # SW 7301931
LL Group # 1438596
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/04/2013 12:40 by KE

Submitted: 12/05/2013 09:50
Reported: 12/31/2013 07:50

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51100 SDG#: PH139-12

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13344SLE026	12/24/2013	10:51	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	13344SLE026	12/10/2013	17:45	Nicholas W Shroyer	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	133450021A	12/13/2013	01:13	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	133450021A	12/12/2013	03:00	Sherry L Morrow	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13347003	12/17/2013	00:59	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13347003	12/13/2013	11:30	Chin F Ly	1
01643	Aluminum	SW-846 6010C	1	133470637001	12/16/2013	18:12	Katlin N Cataldi	1
06944	Antimony	SW-846 6010C	1	133470637001	12/16/2013	18:12	Katlin N Cataldi	1
06935	Arsenic	SW-846 6010C	1	133470637001	12/16/2013	18:12	Katlin N Cataldi	1
06946	Barium	SW-846 6010C	1	133470637001	12/16/2013	18:12	Katlin N Cataldi	1
06947	Beryllium	SW-846 6010C	1	133470637001	12/16/2013	18:12	Katlin N Cataldi	1
07914	Boron	SW-846 6010C	1	133470637001	12/16/2013	18:12	Katlin N Cataldi	1
06949	Cadmium	SW-846 6010C	1	133470637001	12/16/2013	18:12	Katlin N Cataldi	1
01650	Calcium	SW-846 6010C	1	133470637001	12/16/2013	18:12	Katlin N Cataldi	1
06951	Chromium	SW-846 6010C	1	133470637001	12/16/2013	18:12	Katlin N Cataldi	1
06952	Cobalt	SW-846 6010C	1	133470637001	12/16/2013	18:12	Katlin N Cataldi	1
06953	Copper	SW-846 6010C	1	133470637001	12/16/2013	18:12	Katlin N Cataldi	1
01654	Iron	SW-846 6010C	1	133470637001	12/16/2013	18:42	Katlin N Cataldi	2
06955	Lead	SW-846 6010C	1	133470637001	12/16/2013	18:12	Katlin N Cataldi	1
01656	Lithium	SW-846 6010C	1	133470637001	12/16/2013	18:12	Katlin N Cataldi	1
01657	Magnesium	SW-846 6010C	1	133470637001	12/16/2013	18:12	Katlin N Cataldi	1
06958	Manganese	SW-846 6010C	1	133470637001	12/16/2013	18:12	Katlin N Cataldi	1
06960	Molybdenum	SW-846 6010C	1	133470637001	12/16/2013	18:12	Katlin N Cataldi	1
06961	Nickel	SW-846 6010C	1	133470637001	12/16/2013	18:12	Katlin N Cataldi	1
10145	Phosphorus	SW-846 6010C	1	133470637001	12/16/2013	18:12	Katlin N Cataldi	1
01662	Potassium	SW-846 6010C	1	133470637001	12/16/2013	18:12	Katlin N Cataldi	1
01667	Sodium	SW-846 6010C	1	133470637001	12/16/2013	18:12	Katlin N Cataldi	1
06969	Tin	SW-846 6010C	1	133470637001	12/16/2013	18:12	Katlin N Cataldi	1
06970	Titanium	SW-846 6010C	1	133470637001	12/16/2013	18:12	Katlin N Cataldi	1
06971	Vanadium	SW-846 6010C	1	133470637001	12/16/2013	18:12	Katlin N Cataldi	1
06972	Zinc	SW-846 6010C	1	133470637001	12/16/2013	18:12	Katlin N Cataldi	1
10146	Zirconium	SW-846 6010C	1	133470637001	12/16/2013	18:12	Katlin N Cataldi	1
06141	Selenium	SW-846 6020A	1	133470637001B	12/17/2013	18:29	John P Hook	2
06142	Silver	SW-846 6020A	1	133470637001A	12/17/2013	18:29	John P Hook	2
06144	Strontium	SW-846 6020A	1	133470637001A	12/17/2013	18:29	John P Hook	2
06145	Thallium	SW-846 6020A	1	133470637001A	12/17/2013	18:29	John P Hook	2
00159	3a Mercury 7471A	SW-846 7471B	1	133470638001	12/17/2013	07:33	Damary Valentin	1

*=This limit was used in the evaluation of the final result

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Analysis Report

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Sample Description: SL-511-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 NBZ

LL Sample # SW 7301931
LL Group # 1438596
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/04/2013 12:40 by KE

Submitted: 12/05/2013 09:50
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3201 Jermantown Road
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Fairfax VA 22030

51100 SDG#: PH139-12

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	133470637001	12/15/2013 23:55	Annamaria Kuhns	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	133470638001	12/16/2013 02:30	Annamaria Kuhns	1
00394	15a pH by 9045D	SW-846 9045D modified	1	13339039402A	12/05/2013 21:20	Michelle L Lalli	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13346162401A	12/12/2013 23:37	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-511-NBZ-SB-2.5-3.5 Soil
SSFL Phase 3 NBZ

LL Sample # SW 7301932
LL Group # 1438596
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/04/2013 13:00 by KE

Submitted: 12/05/2013 09:50
Reported: 12/31/2013 07:50

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51125 SDG#: PH139-13

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.8	U	1.8	0.70	1
12969	Acenaphthylene	208-96-8	1.8	U	1.8	0.35	1
12969	Anthracene	120-12-7	1.8	U	1.8	0.35	1
12969	Benzo(a)anthracene	56-55-3	1.8	U	1.8	0.70	1
12969	Benzo(a)pyrene	50-32-8	1.8	U	1.8	0.70	1
12969	Benzo(b)fluoranthene	205-99-2	1.8	U	1.8	0.70	1
12969	Benzo(e)pyrene	192-97-2	18	U	18	3.5	1
12969	Benzo(g,h,i)perylene	191-24-2	1.8	U	1.8	0.70	1
12969	Benzo(k)fluoranthene	207-08-9	1.8	U	1.8	0.70	1
12969	Butylbenzylphthalate	85-68-7	19	U	19	6.3	1
12969	Di-n-butylphthalate	84-74-2	19	U	19	6.3	1
12969	Chrysene	218-01-9	1.8	U	1.8	0.35	1
12969	Dibenz(a,h)anthracene	53-70-3	1.8	U	1.8	0.70	1
12969	Diethylphthalate	84-66-2	19	U	19	6.3	1
12969	Dimethylphthalate	131-11-3	19	U	19	6.3	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	19	U	19	6.3	1
12969	Fluoranthene	206-44-0	1.8	U	1.8	0.70	1
12969	Fluorene	86-73-7	1.8	U	1.8	0.70	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.8	U	1.8	0.70	1
12969	1-Methylnaphthalene	90-12-0	1.8	U	1.8	0.70	1
12969	2-Methylnaphthalene	91-57-6	1.8	U	1.8	0.70	1
12969	Naphthalene	91-20-3	1.8	U	1.8	0.70	1
12969	N-Nitrosodimethylamine	62-75-9	1.8	U	1.8	0.70	1
12969	Di-n-octylphthalate	117-84-0	19	U	19	6.3	1
12969	Phenanthrene	85-01-8	1.8	U	1.8	0.70	1
12969	Pyrene	129-00-0	1.8	U	1.8	0.70	1
GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	0.3	J	1.1	0.2	26.32
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.3	U	5.3	2.1	1
12952	EFH (C15-C20)	n.a.	5.3	U	5.3	2.1	1
12952	EFH (C21-C30)	n.a.	3.5	J	5.3	2.1	1
12952	EFH (C30-C40)	n.a.	8.9	J	11	4.2	1
12952	EFH (C8-C11)	n.a.	5.3	U	5.3	2.1	1
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	23,500		40.9	7.38	1
06944	Antimony	7440-36-0	4.09	U	4.09	0.757	1
06935	Arsenic	7440-38-2	28.0		4.09	0.716	1
06946	Barium	7440-39-3	106		1.02	0.0338	1
06947	Beryllium	7440-41-7	1.18		1.02	0.0685	1
07914	Boron	7440-42-8	10.2	U	10.2	0.859	1
06949	Cadmium	7440-43-9	0.354	J	1.02	0.0778	1
01650	Calcium	7440-70-2	3,030		20.5	3.42	1
06951	Chromium	7440-47-3	21.1		3.07	0.164	1

*=This limit was used in the evaluation of the final result

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Analysis Report

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SSFL Phase 3 NBZ

LL Sample # SW 7301932
LL Group # 1438596
Account # 13013

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CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51125 SDG#: PH139-13

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
06952	Cobalt	7440-48-4	7.85		1.02	0.101	1
06953	Copper	7440-50-8	8.84		2.05	0.297	1
01654	Iron	7439-89-6	35,200		81.8	7.41	2
06955	Lead	7439-92-1	15.5		3.07	0.512	1
01656	Lithium	7439-93-2	45.9		4.1	0.35	1
01657	Magnesium	7439-95-4	5,680		10.2	1.71	1
06958	Manganese	7439-96-5	370		1.02	0.0849	1
06960	Molybdenum	7439-98-7	0.630	J	2.05	0.174	1
06961	Nickel	7440-02-0	15.8		2.05	0.133	1
10145	Phosphorus	7723-14-0	359		10.2	2.96	1
01662	Potassium	7440-09-7	4,010		102	8.53	1
01667	Sodium	7440-23-5	106		102	17.1	1
06969	Tin	7440-31-5	3.68	J	10.2	0.225	1
06970	Titanium	7440-32-6	1,330		1.02	0.174	1
06971	Vanadium	7440-62-2	47.0		1.02	0.133	1
06972	Zinc	7440-66-6	82.1		4.09	0.205	1
10146	Zirconium	7440-67-7	1.34	J	5.12	0.859	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.402	J	0.409	0.102	2
06142	Silver	7440-22-4	0.0769	J	0.205	0.0266	2
06144	Strontium	7440-24-6	23.3		0.409	0.0696	2
06145	Thallium	7440-28-0	0.378		0.205	0.0307	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0140	J	0.0171	0.0103	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045D	n.a.	6.72		0.0100	0.0100	1
	The pH was measured in water at 21.5 C.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	5.1		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

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51125 SDG#: PH139-13

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	1.01	U	1.01	0.0565	1
11031	12378-PeCDD	40321-76-4	0.157	JBQ	5.07	0.0355	1
11031	123478-HxCDD	39227-28-6	0.0507	JBQ	5.07	0.0270	1
11031	123678-HxCDD	57653-85-7	0.114	JBQ	5.07	0.0280	1
11031	123789-HxCDD	19408-74-3	0.144	JB	5.07	0.0271	1
11031	1234678-HpCDD	35822-46-9	0.196	JB	5.07	0.0275	1
11031	OCDD	3268-87-9	0.809	JB	10.1	0.0377	1
11031	2378-TCDF	51207-31-9	0.147	JBQ	1.01	0.0573	1
11031	12378-PeCDF	57117-41-6	0.203	JB	5.07	0.0272	1
11031	23478-PeCDF	57117-31-4	0.186	JBQ	5.07	0.0251	1
11031	123478-HxCDF	70648-26-9	0.112	JB	5.07	0.0240	1
11031	123678-HxCDF	57117-44-9	0.0967	JB	5.07	0.0233	1
11031	123789-HxCDF	72918-21-9	0.123	JBQ	5.07	0.0229	1
11031	234678-HxCDF	60851-34-5	0.0897	JBQ	5.07	0.0228	1
11031	1234678-HpCDF	67562-39-4	0.105	JB	5.07	0.0129	1
11031	1234789-HpCDF	55673-89-7	0.0526	JBQ	5.07	0.0173	1
11031	OCDF	39001-02-0	0.217	JBQ	10.1	0.0458	1
D/F Toxic Equivalents	**EPA 1613B**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.0448				1

Labeled Compounds	**%Rec**	**Windows**
13C12-2378-TCDD	59	25 - 164
13C12-12378-PeCDD	61	25 - 181
13C12-123478-HxCDD	76	32 - 141
13C12-123678-HxCDD	77	28 - 130
13C12-123789-HxCDD	75	28 - 130
13C12-1234678-HpCDD	65	23 - 140
13C12-OCDD	58	17 - 157
13C12-2378-TCDF	55	24 - 169
13C12-12378-PeCDF	59	24 - 185
13C12-23478-PeCDF	59	21 - 178
13C12-123478-HxCDF	71	26 - 152
13C12-123678-HxCDF	72	26 - 123
13C12-234678-HxCDF	74	28 - 136
13C12-123789-HxCDF	80	29 - 147
13C12-1234678-HpCDF	70	28 - 143
13C12-1234789-HpCDF	58	26 - 138
13C12-OCDF	53	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column

*=This limit was used in the evaluation of the final result

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Fairfax VA 22030

51125 SDG#: PH139-13

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

Q EMPC - Estimated Maximum Possible Concentration
F Interference is present
S Saturation of detection signal

*=This limit was used in the evaluation of the final result

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51125 SDG#: PH139-13

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13344SLE026	12/24/2013	11:25	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	13344SLE026	12/10/2013	17:45	Nicholas W Shroyer	1
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	13347A16A	12/16/2013	21:27	Marie D Beamenderfer	26.32
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201333933341	12/05/2013	14:54	Mitchell R Washel	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201333933341	12/05/2013	14:55	Mitchell R Washel	n.a.
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	133450021A	12/12/2013	23:47	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	133450021A	12/12/2013	03:00	Sherry L Morrow	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13347003	12/17/2013	01:56	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13347003	12/13/2013	11:30	Chin F Ly	1
01643	Aluminum	SW-846 6010C	1	133470637001	12/16/2013	18:23	Katlin N Cataldi	1
06944	Antimony	SW-846 6010C	1	133470637001	12/16/2013	18:23	Katlin N Cataldi	1
06935	Arsenic	SW-846 6010C	1	133470637001	12/16/2013	18:23	Katlin N Cataldi	1
06946	Barium	SW-846 6010C	1	133470637001	12/16/2013	18:23	Katlin N Cataldi	1
06947	Beryllium	SW-846 6010C	1	133470637001	12/16/2013	18:23	Katlin N Cataldi	1
07914	Boron	SW-846 6010C	1	133470637001	12/16/2013	18:23	Katlin N Cataldi	1
06949	Cadmium	SW-846 6010C	1	133470637001	12/16/2013	18:23	Katlin N Cataldi	1
01650	Calcium	SW-846 6010C	1	133470637001	12/16/2013	18:23	Katlin N Cataldi	1
06951	Chromium	SW-846 6010C	1	133470637001	12/16/2013	18:23	Katlin N Cataldi	1
06952	Cobalt	SW-846 6010C	1	133470637001	12/16/2013	18:23	Katlin N Cataldi	1
06953	Copper	SW-846 6010C	1	133470637001	12/16/2013	18:23	Katlin N Cataldi	1
01654	Iron	SW-846 6010C	1	133470637001	12/16/2013	18:45	Katlin N Cataldi	2
06955	Lead	SW-846 6010C	1	133470637001	12/16/2013	18:23	Katlin N Cataldi	1
01656	Lithium	SW-846 6010C	1	133470637001	12/16/2013	18:23	Katlin N Cataldi	1
01657	Magnesium	SW-846 6010C	1	133470637001	12/16/2013	18:23	Katlin N Cataldi	1
06958	Manganese	SW-846 6010C	1	133470637001	12/16/2013	18:23	Katlin N Cataldi	1
06960	Molybdenum	SW-846 6010C	1	133470637001	12/16/2013	18:23	Katlin N Cataldi	1
06961	Nickel	SW-846 6010C	1	133470637001	12/16/2013	18:23	Katlin N Cataldi	1
10145	Phosphorus	SW-846 6010C	1	133470637001	12/16/2013	18:23	Katlin N Cataldi	1
01662	Potassium	SW-846 6010C	1	133470637001	12/16/2013	18:23	Katlin N Cataldi	1
01667	Sodium	SW-846 6010C	1	133470637001	12/16/2013	18:23	Katlin N Cataldi	1
06969	Tin	SW-846 6010C	1	133470637001	12/16/2013	18:23	Katlin N Cataldi	1
06970	Titanium	SW-846 6010C	1	133470637001	12/16/2013	18:23	Katlin N Cataldi	1
06971	Vanadium	SW-846 6010C	1	133470637001	12/16/2013	18:23	Katlin N Cataldi	1
06972	Zinc	SW-846 6010C	1	133470637001	12/16/2013	18:23	Katlin N Cataldi	1
10146	Zirconium	SW-846 6010C	1	133470637001	12/16/2013	18:23	Katlin N Cataldi	1
06141	Selenium	SW-846 6020A	1	133470637001B	12/17/2013	18:36	John P Hook	2
06142	Silver	SW-846 6020A	1	133470637001A	12/17/2013	18:36	John P Hook	2

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-511-NBZ-SB-2.5-3.5 Soil
SSFL Phase 3 NBZ

LL Sample # SW 7301932
LL Group # 1438596
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/04/2013 13:00 by KE

Submitted: 12/05/2013 09:50
Reported: 12/31/2013 07:50

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51125 SDG#: PH139-13

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06144	Strontium	SW-846 6020A	1	133470637001A	12/17/2013 18:36	John P Hook	2
06145	Thallium	SW-846 6020A	1	133470637001A	12/17/2013 18:36	John P Hook	2
00159	3a Mercury 7471A	SW-846 7471B	1	133470638001	12/17/2013 07:35	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	133470637001	12/15/2013 23:55	Annamaria Kuhns	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	133470638001	12/16/2013 02:30	Annamaria Kuhns	1
00394	15a pH by 9045D	SW-846 9045D modified	1	13339039402A	12/05/2013 21:20	Michelle L Lalli	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13346162401A	12/12/2013 23:37	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-548-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 NBZ

LL Sample # SW 7301933
LL Group # 1438596
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/04/2013 14:15 by KE

Submitted: 12/05/2013 09:50
Reported: 12/31/2013 07:50

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

54800 SDG#: PH139-14*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	34	U	34	10	1
13099	Aroclor 5442	12642-23-8	34	U	34	10	1
13099	Aroclor 5460	11126-42-4	34	U	34	10	1
13099	PCB-1016	12674-11-2	18	U	18	3.4	1
13099	PCB-1221	11104-28-2	18	U	18	5.3	1
13099	PCB-1232	11141-16-5	18	U	18	4.2	1
13099	PCB-1242	53469-21-9	18	U	18	4.2	1
13099	PCB-1248	12672-29-6	18	U	18	3.4	1
13099	PCB-1254	11097-69-1	18	U	18	4.6	1
13099	PCB-1260	11096-82-5	18	U	18	4.0	1
13099	PCB-1262	37324-23-5	18	U	18	3.4	1
13099	PCB-1268	11100-14-4	18	U	18	3.4	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.2	U	5.2	2.1	1
12952	EFH (C15-C20)	n.a.	5.2	U	5.2	2.1	1
12952	EFH (C21-C30)	n.a.	5.2	U	5.2	2.1	1
12952	EFH (C30-C40)	n.a.	10	U	10	4.1	1
12952	EFH (C8-C11)	n.a.	5.2	U	5.2	2.1	1
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	3.3		0.10	0.10	1

Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-548-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 NBZ

LL Sample # SW 7301933
LL Group # 1438596
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/04/2013 14:15 by KE

Submitted: 12/05/2013 09:50
Reported: 12/31/2013 07:50

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

54800 SDG#: PH139-14*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	0.115	JBQ	0.994	0.0572	1
11031	12378-PeCDD	40321-76-4	0.194	JBQ	4.97	0.0385	1
11031	123478-HxCDD	39227-28-6	0.0513	JBQ	4.97	0.0254	1
11031	123678-HxCDD	57653-85-7	0.0726	JBQ	4.97	0.0269	1
11031	123789-HxCDD	19408-74-3	0.0822	JBQ	4.97	0.0251	1
11031	1234678-HpCDD	35822-46-9	0.137	JB	4.97	0.0275	1
11031	OCDD	3268-87-9	0.438	JB	9.94	0.0394	1
11031	2378-TCDF	51207-31-9	0.123	JBQ	0.994	0.0553	1
11031	12378-PeCDF	57117-41-6	0.249	JB	4.97	0.0262	1
11031	23478-PeCDF	57117-31-4	0.202	JBQ	4.97	0.0245	1
11031	123478-HxCDF	70648-26-9	0.103	JBQ	4.97	0.0279	1
11031	123678-HxCDF	57117-44-9	0.102	JBQ	4.97	0.0260	1
11031	123789-HxCDF	72918-21-9	0.0965	JB	4.97	0.0281	1
11031	234678-HxCDF	60851-34-5	0.0735	JBQ	4.97	0.0259	1
11031	1234678-HpCDF	67562-39-4	0.109	JB	4.97	0.0152	1
11031	1234789-HpCDF	55673-89-7	0.0269	JBQ	4.97	0.0196	1
11031	OCDF	39001-02-0	0.180	JBQ	9.94	0.0491	1
D/F Toxic Equivalents	**EPA 1613B**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.0196				1

Labeled Compounds	**%Rec**	**Windows**
13C12-2378-TCDD	58	25 - 164
13C12-12378-PeCDD	60	25 - 181
13C12-123478-HxCDD	73	32 - 141
13C12-123678-HxCDD	75	28 - 130
13C12-123789-HxCDD	73	28 - 130
13C12-1234678-HpCDD	62	23 - 140
13C12-OCDD	50	17 - 157
13C12-2378-TCDF	53	24 - 169
13C12-12378-PeCDF	57	24 - 185
13C12-23478-PeCDF	56	21 - 178
13C12-123478-HxCDF	67	26 - 152
13C12-123678-HxCDF	70	26 - 123
13C12-234678-HxCDF	70	28 - 136
13C12-123789-HxCDF	71	29 - 147
13C12-1234678-HpCDF	67	28 - 143
13C12-1234789-HpCDF	55	26 - 138
13C12-OCDF	45	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column

*=This limit was used in the evaluation of the final result

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Environmental

Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: SL-548-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 NBZ

LL Sample # SW 7301933
LL Group # 1438596
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/04/2013 14:15 by KE

Submitted: 12/05/2013 09:50
Reported: 12/31/2013 07:50

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

54800 SDG#: PH139-14*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

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Lancaster Laboratories Environmental
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Analysis Report

Sample Description: SL-548-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 NBZ

LL Sample # SW 7301933
LL Group # 1438596
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/04/2013 14:15 by KE

Submitted: 12/05/2013 09:50
Reported: 12/31/2013 07:50

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

54800 SDG#: PH139-14*

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	133440007A	12/11/2013 17:04	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	133440007A	12/10/2013 16:00	JoElla L Rice	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	133450021A	12/13/2013 00:09	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	133450021A	12/12/2013 03:00	Sherry L Morrow	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13347003	12/17/2013 07:43	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13347003	12/13/2013 11:30	Chin F Ly	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13346162401B	12/12/2013 23:37	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1438596
Reported: 12/31/13 at 07:50 AM

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 13344SLE026	Sample number(s): 7301920-7301921,7301926-7301928,7301930-7301932									
Acenaphthene	1.7	U	1.7	0.67	ug/kg	99		77-116		
Acenaphthylene	1.7	U	1.7	0.33	ug/kg	102		78-120		
Anthracene	1.7	U	1.7	0.33	ug/kg	102		80-116		
Benzo(a)anthracene	1.7	U	1.7	0.67	ug/kg	114		83-119		
Benzo(a)pyrene	1.7	U	1.7	0.67	ug/kg	110		80-122		
Benzo(b)fluoranthene	1.7	U	1.7	0.67	ug/kg	120		82-135		
Benzo(e)pyrene	17	U	17.	3.3	ug/kg	102		81-110		
Benzo(g,h,i)perylene	1.7	U	1.7	0.67	ug/kg	111		79-121		
Benzo(k)fluoranthene	1.7	U	1.7	0.67	ug/kg	110		79-123		
Butylbenzylphthalate	18	U	18.	6.0	ug/kg	108		77-123		
Di-n-butylphthalate	18	U	18.	6.0	ug/kg	101		78-125		
Chrysene	1.7	U	1.7	0.33	ug/kg	113		84-113		
Dibenz(a,h)anthracene	1.7	U	1.7	0.67	ug/kg	107		78-124		
Diethylphthalate	18	U	18.	6.0	ug/kg	104		77-130		
Dimethylphthalate	18	U	18.	6.0	ug/kg	107		85-122		
Bis(2-Ethylhexyl)phthalate	18	U	18.	6.0	ug/kg	108		79-121		
Fluoranthene	1.7	U	1.7	0.67	ug/kg	106		85-116		
Fluorene	1.7	U	1.7	0.67	ug/kg	105		81-126		
Indeno(1,2,3-cd)pyrene	1.7	U	1.7	0.67	ug/kg	111		77-124		
1-Methylnaphthalene	1.7	U	1.7	0.67	ug/kg	115		78-119		
2-Methylnaphthalene	1.7	U	1.7	0.67	ug/kg	115		78-121		
Naphthalene	1.7	U	1.7	0.67	ug/kg	103		79-113		
N-Nitrosodimethylamine	1.7	U	1.7	0.67	ug/kg	101		71-124		
Di-n-octylphthalate	18	U	18.	6.0	ug/kg	113		76-131		
Phenanthrene	1.7	U	1.7	0.67	ug/kg	102		72-110		
Pyrene	1.7	U	1.7	0.67	ug/kg	115*		79-112		
Batch number: 13339A94A	Sample number(s): 7301925									
TPH-GRO S.CA water C5-C12	50	U	50.	20	ug/l	113	114	75-135	1	30
Batch number: 13347A16A	Sample number(s): 7301919,7301921,7301932									
11a TPH by EPA 8015B GRO	1.0	U	1.0	0.2	mg/kg	83	87	67-119	4	30
Batch number: 133440007A	Sample number(s): 7301920-7301921,7301926-7301928,7301930,7301933									
Aroclor 5432	33	U	33.	10	ug/kg					
Aroclor 5442	33	U	33.	10	ug/kg	85	87	36-106	2	30
Aroclor 5460	33	U	33.	10	ug/kg					
PCB-1016	17	U	17.	3.3	ug/kg	104		82-116		
PCB-1221	17	U	17.	5.1	ug/kg					
PCB-1232	17	U	17.	4.1	ug/kg					
PCB-1242	17	U	17.	4.1	ug/kg					
PCB-1248	17	U	17.	3.3	ug/kg					
PCB-1254	17	U	17.	4.4	ug/kg					

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1438596
Reported: 12/31/13 at 07:50 AM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
PCB-1260	17	U	17.	3.9	ug/kg	114		84-125		
PCB-1262	17	U	17.	3.3	ug/kg					
PCB-1268	17	U	17.	3.3	ug/kg					
Batch number: 133440020A	Sample number(s): 7301917-7301921									
Aldrin	0.83	U	0.83	0.17	ug/kg	107		60-118		
Alpha BHC	0.83	U	0.83	0.17	ug/kg	109		62-128		
Beta BHC	1.9	U	1.9	0.96	ug/kg	108		69-121		
Gamma BHC - Lindane	0.83	U	0.83	0.17	ug/kg	117		64-130		
Chlordane	17	U	17.	4.0	ug/kg					
p,p-DDD	1.7	U	1.7	0.33	ug/kg	106		69-141		
p,p-DDE	1.7	U	1.7	0.33	ug/kg	107		69-130		
p,p-DDT	1.7	U	1.7	0.35	ug/kg	118		64-139		
Delta BHC	0.83	U	0.83	0.45	ug/kg	116		51-141		
Dieldrin	1.7	U	1.7	0.33	ug/kg	110		73-135		
Endosulfan I	0.83	U	0.83	0.22	ug/kg	93		64-130		
Endosulfan II	1.7	U	1.7	0.33	ug/kg	101		68-128		
Endosulfan Sulfate	1.7	U	1.7	0.33	ug/kg	115		71-132		
Endrin	1.7	U	1.7	0.33	ug/kg	106		70-132		
Endrin Aldehyde	1.7	U	1.7	0.33	ug/kg	99		60-120		
Endrin Ketone	1.8	U	1.8	0.60	ug/kg	108		74-127		
Heptachlor	0.83	U	0.83	0.17	ug/kg	103		62-127		
Heptachlor Epoxide	0.83	U	0.83	0.17	ug/kg	111		69-125		
Methoxychlor	6.7	U	6.7	1.7	ug/kg	111		67-136		
Mirex	1.7	U	1.7	0.35	ug/kg					
Toxaphene	33	U	33.	14	ug/kg					
Batch number: 133450021A	Sample number(s): 7301917-7301924,7301926-7301928,7301930-7301933									
EFH (C12-C14)	5.0	U	5.0	2.0	mg/kg	101		76-115		
EFH (C15-C20)	5.0	U	5.0	2.0	mg/kg	107		78-127		
EFH (C21-C30)	5.0	U	5.0	2.0	mg/kg	105		77-127		
EFH (C30-C40)	10	U	10.	4.0	mg/kg	57		44-134		
EFH (C8-C11)	5.0	U	5.0	2.0	mg/kg	83		60-115		
Batch number: 133470637001	Sample number(s): 7301926-7301932									
Aluminum	40.0	U	40.0	7.21	mg/kg	102		80-120		
Antimony	4.00	U	4.00	0.740	mg/kg	105		80-120		
Arsenic	4.00	U	4.00	0.700	mg/kg	105		80-120		
Barium	1.00	U	1.00	0.0330	mg/kg	103		80-120		
Beryllium	1.00	U	1.00	0.0670	mg/kg	103		80-120		
Boron	10.0	U	10.0	0.840	mg/kg	96		80-120		
Cadmium	1.00	U	1.00	0.0760	mg/kg	110		80-120		
Calcium	4.84	J	20.0	3.34	mg/kg	103		80-120		
Chromium	3.00	U	3.00	0.160	mg/kg	97		80-120		
Cobalt	1.00	U	1.00	0.0990	mg/kg	109		80-120		
Copper	2.00	U	2.00	0.290	mg/kg	106		80-120		
Iron	40.0	U	40.0	3.62	mg/kg	106		80-120		
Lead	3.00	U	3.00	0.500	mg/kg	112		80-120		
Lithium	4.0	U	4.0	0.34	mg/kg	105		80-120		
Magnesium	2.30	J	10.0	1.67	mg/kg	104		80-120		
Manganese	1.00	U	1.00	0.0830	mg/kg	106		80-120		
Molybdenum	2.00	U	2.00	0.170	mg/kg	103		80-120		
Nickel	2.00	U	2.00	0.130	mg/kg	114		80-120		
Phosphorus	10.0	U	10.0	2.89	mg/kg	110		80-120		
Potassium	100 U		100.	8.34	mg/kg	103		80-120		

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1438596
Reported: 12/31/13 at 07:50 AM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Sodium	100		100.	16.7	mg/kg	102		80-120		
	U									
Tin	1.63	J	10.0	0.220	mg/kg	101		80-120		
Titanium	1.00	U	1.00	0.170	mg/kg	100		80-120		
Vanadium	1.00	U	1.00	0.130	mg/kg	99		80-120		
Zinc	0.233	J	4.00	0.200	mg/kg	108		80-120		
Zirconium	5.00	U	5.00	0.840	mg/kg	98		80-120		
Batch number: 133470637001A	Sample number(s): 7301926-7301932									
Silver	0.200	U	0.200	0.0260	mg/kg	109		80-120		
Strontium	0.400	U	0.400	0.0680	mg/kg	106		80-120		
Thallium	0.200	U	0.200	0.0300	mg/kg	109		80-120		
Batch number: 133470637001B	Sample number(s): 7301926-7301932									
Selenium	0.400	U	0.400	0.100	mg/kg	114		80-120		
Batch number: 133470638001	Sample number(s): 7301926-7301932									
3a Mercury 7471A	0.0167	U	0.0167	0.0100	mg/kg	112		85-120		
Batch number: 13349102201A	Sample number(s): 7301926-7301927,7301929-7301930									
18a Cyanide by EPA 9012B	0.50	U	0.50	0.18	mg/kg	99		80-120		
Batch number: 13339039402A	Sample number(s): 7301920-7301921,7301926,7301929-7301932									
15a pH by 9045D						100		95-105		
Batch number: 13346162401A	Sample number(s): 7301917-7301924,7301926-7301932									
14a Moisture Content by 160.3						99		80-120		
14a Moisture Content by 160.3						99		80-120		
14a Moisture Content by 160.3						99		80-120		
Batch number: 13346162401B	Sample number(s): 7301933									
14a Moisture Content by 160.3						99		80-120		

Analysis Name	Blank Result		Blank MRL**	Blank EDL	Report Units	OPR %REC	OPRD %REC	OPR/OPRD Limits	RPD	RPD Max
Batch number: 13347003	Sample number(s): 7301920-7301921,7301926-7301928,7301930-7301933									
2378-TCDD	0.0842	J	1.00	0.0450	ng/kg	93		67-158		
12378-PeCDD	0.186	J	5.00	0.0305	ng/kg	95		70-142		
123478-HxCDD	0.164	J	5.00	0.0285	ng/kg	100		70-164		
123678-HxCDD	0.174	J	5.00	0.0294	ng/kg	101		76-134		
123789-HxCDD	0.220	J	5.00	0.0273	ng/kg	100		64-162		
1234678-HpCDD	0.255	J	5.00	0.0234	ng/kg	100		70-140		
OCDD	0.606	J	10.0	0.0277	ng/kg	97		78-144		
2378-TCDF	0.0670	J	1.00	0.0481	ng/kg	96		75-158		
12378-PeCDF	0.219	J	5.00	0.0214	ng/kg	99		80-134		
23478-PeCDF	0.287	J	5.00	0.0200	ng/kg	100		68-160		
123478-HxCDF	0.187	J	5.00	0.0280	ng/kg	102		72-134		
123678-HxCDF	0.183	J	5.00	0.0270	ng/kg	101		84-130		
123789-HxCDF	0.333	J	5.00	0.0260	ng/kg	102		78-130		
234678-HxCDF	0.271	J	5.00	0.0256	ng/kg	101		70-156		
1234678-HpCDF	0.219	J	5.00	0.0126	ng/kg	99		82-122		
1234789-HpCDF	0.237	J	5.00	0.0167	ng/kg	103		78-138		
OCDF	0.588	J	10.0	0.0393	ng/kg	100		63-170		
TEQ WHO 2005 - EDLx0.0	0.325				ng/kg					

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1438596
Reported: 12/31/13 at 07:50 AM

Analysis Name	Blank Result	Blank MRL**	Blank EDL	Report Units	OPR %REC	OPRD %REC	OPR/OPRD Limits	RPD	RPD Max

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 13344SLE026	Sample number(s): 7301920-7301921,7301926-7301928,7301930-7301932 UNSPK: 7301926								
Acenaphthene	90	93	48-127	3	30				
Acenaphthylene	84	88	49-121	5	30				
Anthracene	87	93	52-126	7	30				
Benzo(a)anthracene	106	118	44-143	11	30				
Benzo(a)pyrene	95	105	44-140	10	30				
Benzo(b)fluoranthene	74	108	26-142	26	30				
Benzo(e)pyrene	0*	118	70-130	200*	30				
Benzo(g,h,i)perylene	56	64	33-141	13	30				
Benzo(k)fluoranthene	112	108	54-142	4	30				
Butylbenzylphthalate	0*	0*	49-151	0	30				
Di-n-butylphthalate	0*	0*	52-147	0	30				
Chrysene	81	98	29-148	11	30				
Dibenz(a,h)anthracene	64	67	20-137	5	30				
Diethylphthalate	0*	0*	43-145	0	30				
Dimethylphthalate	0*	0*	58-129	0	30				
Bis(2-Ethylhexyl)phthalate	0*	0*	39-167	0	30				
Fluoranthene	103	105	40-148	2	30				
Fluorene	88	92	51-137	5	30				
Indeno(1,2,3-cd)pyrene	64	68	17-136	7	30				
1-Methylnaphthalene	103	106	50-131	3	30				
2-Methylnaphthalene	103	108	35-152	5	30				
Naphthalene	66	68	31-148	2	30				
N-Nitrosodimethylamine	83	88	48-113	5	30				
Di-n-octylphthalate	0*	0*	52-162	0	30				
Phenanthrene	94	100	29-142	6	30				
Pyrene	106	118	26-143	11	30				
Batch number: 133440007A	Sample number(s): 7301920-7301921,7301926-7301928,7301930,7301933 UNSPK: 7301926								
PCB-1016	85	85	41-135	1	50				
PCB-1260	92	88	40-134	5	50				
Batch number: 133440020A	Sample number(s): 7301917-7301921 UNSPK: P300098								
Aldrin	96	99	16-126	3	50				
Alpha BHC	102	103	14-140	1	50				
Beta BHC	97	102	42-133	5	50				
Gamma BHC - Lindane	102	108	30-137	5	50				
p,p-DDD	99	105	43-149	5	50				
p,p-DDE	111	119	35-152	7	50				
p,p-DDT	136	148	12-193	8	50				
Delta BHC	105	112	13-153	6	50				

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1438596
Reported: 12/31/13 at 07:50 AM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Dieldrin	101	103	41-153	1	50				
Endosulfan I	83	86	26-146	4	50				
Endosulfan II	102	109	34-141	6	50				
Endosulfan Sulfate	102	106	10-181	3	50				
Endrin	101	104	30-152	3	50				
Endrin Aldehyde	86	91	23-138	6	50				
Endrin Ketone	93	98	30-148	4	50				
Heptachlor	92	95	16-152	3	50				
Heptachlor Epoxide	110	114	33-144	3	50				
Methoxychlor	98	104	41-161	5	50				
Batch number: 133450021A	Sample number(s): 7301917-7301924,7301926-7301928,7301930-7301933 UNSPK: 7301926								
EFH (C12-C14)	0*	0*	49-123	0	20				
EFH (C15-C20)	-98 (2)	54 (2)	49-123	38*	20				
EFH (C21-C30)	-219 (2)	-79 (2)	49-123	14	20				
EFH (C30-C40)	-386 (2)	248 (2)	49-123	29*	20				
EFH (C8-C11)	0*	0*	49-123	0	20				
Batch number: 133470637001	Sample number(s): 7301926-7301932 UNSPK: 7301926 BKG: 7301926								
Aluminum	1409 (2)	1052 (2)	75-125	5	20	11,200	9,940	12	20
Antimony	63*	62*	75-125	1	20	3.92 U	3.92 U	0 (1)	20
Arsenic	104	98	75-125	4	20	3.00 J	2.85 J	5 (1)	20
Barium	104	101	75-125	2	20	66.1	63.8	4	20
Beryllium	104	102	75-125	2	20	0.441 J	0.393 J	12 (1)	20
Boron	97	95	75-125	1	20	4.43 J	4.34 J	2 (1)	20
Cadmium	102	98	75-125	3	20	0.414 J	0.389 J	6 (1)	20
Calcium	252 (2)	220 (2)	75-125	2	20	4,690	4,740	1	20
Chromium	101	92	75-125	5	20	15.5	15.0	3	20
Cobalt	100	97	75-125	3	20	4.44	4.03	10 (1)	20
Copper	100	97	75-125	2	20	4.45	4.03	10 (1)	20
Iron	1112 (2)	38 (2)	75-125	6	20	17,100	15,900	7	20
Lead	104	94	75-125	5	20	13.7	12.4	10 (1)	20
Lithium	105	101	75-125	3	20	21.0	19.2	9 (1)	20
Magnesium	233 (2)	129 (2)	75-125	5	20	3,920	3,720	5	20
Manganese	141 (2)	114 (2)	75-125	4	20	262	240	8	20
Molybdenum	95	93	75-125	2	20	0.924 J	0.381 J	83* (1)	20
Nickel	103	99	75-125	3	20	9.93	9.06	9 (1)	20
Phosphorus	85 (2)	56 (2)	75-125	6	20	399	358	11	20
Potassium	124	109	75-125	3	20	3,230	3,040	6	20
Sodium	100	97	75-125	3	20	72.5 J	68.1 J	6 (1)	20
Tin	89	87	75-125	2	20	2.63 J	2.73 J	4 (1)	20
Titanium	293 (2)	271 (2)	75-125	2	20	934	817	13	20
Vanadium	103	97	75-125	4	20	28.8	26.5	9	20
Zinc	106	100	75-125	3	20	52.9	49.8	6	20
Zirconium	90	87	75-125	3	20	1.54 J	1.46 J	5 (1)	20
Batch number: 133470637001A	Sample number(s): 7301926-7301932 UNSPK: 7301926 BKG: 7301926								
Silver	105	102	75-125	2	20	0.186 J	0.204	9 (1)	20

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1438596
Reported: 12/31/13 at 07:50 AM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Strontium	124	196*	75-125	16	20	23.4	24.1	3	20
Thallium	97	98	75-125	1	20	0.197	0.188 J	4 (1)	20
Batch number: 133470637001B	Sample number(s): 7301926-7301932 UNSPK: 7301926 BKG: 7301926								
Selenium	104	110	75-125	5	20	0.188 J	0.188 J	0 (1)	20
Batch number: 133470638001	Sample number(s): 7301926-7301932 UNSPK: 7301926 BKG: 7301926								
3a Mercury 7471A	95	112	65-135	8	20	0.169	0.151	11	20
Batch number: 13349102201A	Sample number(s): 7301926-7301927,7301929-7301930 UNSPK: 7301926 BKG: 7301926								
18a Cyanide by EPA 9012B	108		75-125			0.49 U	0.23 J	200* (1)	20
Batch number: 13339039402A	Sample number(s): 7301920-7301921,7301926,7301929-7301932 BKG: 7301926								
15a pH by 9045D						6.97	6.97	0	3
Batch number: 13346162401A	Sample number(s): 7301917-7301924,7301926-7301932 BKG: 7301926								
14a Moisture Content by 160.3						7.5	7.0	7	20
14a Moisture Content by 160.3						7.5	7.0	7	20
14a Moisture Content by 160.3						7.5	7.0	7	20
Batch number: 13346162401B	Sample number(s): 7301933 BKG: 7301933								
14a Moisture Content by 160.3						3.3	3.3	0	20
Batch number: 13347003	Sample number(s): 7301920-7301921,7301926-7301928,7301930-7301933 UNSPK: 7301926								
2378-TCDD	87	89	40-135	1	20				
12378-PeCDD	93	95	40-135	1	20				
123478-HxCDD	98	100	40-135	1	20				
123678-HxCDD	99	98	40-135	2	20				
123789-HxCDD	99	97	40-135	3	20				
1234678-HpCDD	91	90	40-135	2	20				
OCDD	76	58	40-135	14	20				
2378-TCDF	92	92	40-135	1	20				
12378-PeCDF	98	99	40-135	0	20				
23478-PeCDF	101	99	40-135	3	20				
123478-HxCDF	101	101	40-135	1	20				
123678-HxCDF	102	101	40-135	2	20				
123789-HxCDF	101	103	40-135	1	20				
234678-HxCDF	99	101	40-135	0	20				
1234678-HpCDF	99	99	40-135	1	20				
1234789-HpCDF	101	102	40-135	0	20				
OCDF	97	96	40-135	2	20				

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 7a SVOC SIM EPA 8270D
Batch number: 13344SLE026

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1438596
Reported: 12/31/13 at 07:50 AM

Surrogate Quality Control

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
7301920	87	87	105
7301921	82	85	100
7301926	75	78	92
7301927	77	76	93
7301928	78	80	95
7301930	72	68	85
7301931	73	72	92
7301932	58	59	70
Blank	87	90	106
LCS	88	89	106
MS	77	76	93
MSD	78	80	95
Limits:	54-129	59-125	61-125

Analysis Name: 11b TPH by EPA 8015B GRO
Batch number: 13339A94A

	Trifluorotoluene-F
7301925	88
Blank	87
LCS	92
LCSD	92
Limits:	63-135

Analysis Name: 11a TPH by EPA 8015B GRO
Batch number: 13347A16A

	Trifluorotoluene-F
7301919	81
7301921	86
7301932	84
Blank	90
LCS	96
LCSD	99
Limits:	50-142

Analysis Name: 19a PCBs and PCTs 8082A
Batch number: 133440007A

	Tetrachloro-m-xylene	Decachlorobiphenyl
7301920	105	102
7301921	108	105
7301926	87	75
7301927	101	89
7301928	94	91
7301930	91	85
7301933	106	103
Blank	111	108
LCS	117	116
LCSD	112	114

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1438596
Reported: 12/31/13 at 07:50 AM

Surrogate Quality Control

MS	101	89
MSD	94	91
Limits:	45-120	45-120

Analysis Name: 20a Pesticides by EPA 8081B
Batch number: 133440020A

	Tetrachloro-m-xylene	Decachlorobiphenyl
7301917	97	110
7301918	101	110
7301919	95	109
7301920	104	112
7301921	97	108
Blank	101	112
LCS	105	118
MS	89	104
MSD	96	112
Limits:	50-130	20-120

Analysis Name: 10a TPH by EPA 8015B (DRO)
Batch number: 133450021A

	Chlorobenzene	Orthoterphenyl
7301917	102	103
7301918	100	99
7301919	100	102
7301920	95	93
7301921	103	105
7301922	100	112
7301923	95	95
7301924	100	95
7301926	108	113
7301927	103	111
7301928	105	109
7301930	98	112
7301931	90	83
7301932	94	96
7301933	106	110
Blank	105	100
LCS	97	96
MS	103	111
MSD	105	109
Limits:	37-125	66-123

Analysis Name: 23a Dioxin/Furan by EPA 1613B
Batch number: 13347003

	13C12-2378-TCDD	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF	13C12-234678-HxCDF	13C12-123789-HxCDF
7301920	63	65	72	76	76	76
7301921	62	62	72	74	76	72
7301926	73	67	75	76	81	88
7301927	82	73	80	82	86	99
7301928	77	70	79	79	82	81

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1438596
Reported: 12/31/13 at 07:50 AM

Surrogate Quality Control

7301930	79	70	81	82	86	84
7301931	70	63	74	77	77	77
7301932	59	59	71	72	74	80
7301933	58	56	67	70	70	71
Blank	74	75	84	87	88	96
MS	82	73	80	82	86	99
MSD	77	70	79	79	82	81
OPR	68	68	75	79	81	84
Limits:	25-164	21-178	26-152	26-123	28-136	29-147

	13C12-1234678-HpCDF	13C12-1234789-HpCDF	13C12-OCDF	13C12-12378-PeCDD	13C12-123478-HxCDD	13C12-123678-HxCDD
7301920	76	62	53	67	80	79
7301921	76	62	51	65	80	78
7301926	74	69	64	69	80	81
7301927	80	69	62	75	88	88
7301928	73	62	55	72	83	84
7301930	76	67	63	71	89	87
7301931	73	59	51	67	81	80
7301932	70	58	53	61	76	77
7301933	67	55	45	60	73	75
Blank	85	69	60	78	91	92
MS	80	69	62	75	88	88
MSD	73	62	55	72	83	84
OPR	80	62	54	71	83	82
Limits:	28-143	26-138	17-157	25-181	32-141	28-130

	13C12-123789-HxCDD	13C12-1234678-HpCDD	13C12-OCDD	13C12-2378-TCDF	13C12-12378-PeCDF
7301920	77	69	60	58	64
7301921	78	69	59	58	62
7301926	81	72	67	69	68
7301927	87	76	66	73	75
7301928	83	68	58	72	71
7301930	86	74	66	74	71
7301931	79	67	57	64	66
7301932	75	65	58	55	59
7301933	73	62	50	53	57
Blank	89	77	66	69	75
MS	87	76	66	73	75
MSD	83	68	58	72	71
OPR	82	71	61	60	70
Limits:	28-130	23-140	17-157	24-169	24-185

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13013 1438596 7301917-33

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 12/4/2013
CarrierName: FedEx
AirbillNo: 797314998950

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20131204-01
Cooler #: 1
Lab: Lancaster
Lab Phone: 717-556-7259
Lab Address: 2425 New Holland Pike, Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Total Nitrogen ASTM D5373	TOC ASTM D5310	Grain Size ASTM 2488-09a	Other Analysis/Notes
SL-506-NBZ-SB-0.0-0.5	12/4/13 10:30	SO	None	1 - 16 oz glass	10 day																	X				X														
SL-507-NBZ-SB-0.0-0.5	12/4/13 10:00	SO	None	1 - 16 oz glass	10 day																	X				X														
SL-507-NBZ-SB-3.5-4.5	12/4/13 10:15	SO	None	1 - 16 oz glass	10 day																	X				X														
SL-507-NBZ-SB-3.5-4.5	12/4/13 10:15	SO	None	2 - Encore	10 day																				X															
SL-508-NBZ-SB-0.0-0.5	12/4/13 09:00	SO	None	2 - SS-Sleeve	10 day							X		X	X							X				X														
SL-508-NBZ-SB-0.0-0.5	12/4/13 09:00	SO	None	1 - 4 oz glass	10 day													X																						
SL-508-NBZ-SB-4.0-5.0	12/4/13 09:15	SO	None	2 - 16 oz glass	10 day							X		X	X			X				X				X														
SL-508-NBZ-SB-4.0-5.0	12/4/13 09:15	SO	None	2 - Encore	10 day																				X															
SL-546-NBZ-SB-0.0-0.5	12/4/13 09:55	SO	None	1 - SS-Sleeve	10 day																					X														
SL-547-NBZ-SB-0.0-0.5	12/4/13 10:45	SO	None	1 - SS-Sleeve	10 day																					X														
SL-549-NBZ-SB-0.0-0.5	12/4/13 08:55	SO	None	1 - SS-Sleeve	10 day																					X														
TB-120413	12/4/13 08:00	WQ	HCl	3 - 40 mL Vial	10 day																				X															
SL-545-NBZ-SB-0.0-0.5MS	12/4/13 13:25	SO	None	6 - SS-Sleeve	10 day	X	X					X		X	X											X						X								MS/MSD
SL-545-NBZ-SB-0.0-0.5MS	12/4/13 13:25	SO	None	1 - 8 oz glass	10 day													X																						MS/MSD
SL-845-NBZ-SB-0.0-0.5	12/4/13 13:30	SO	None	2 - SS-Sleeve	10 day	X	X					X		X	X											X						X								
SL-845-NBZ-SB-0.0-0.5	12/4/13 13:30	SO	None	1 - 4 oz glass	10 day													X																						
SL-511-NBZ-SB-0.0-0.5	12/4/13 12:40	SO	None	2 - SS-Sleeve	10 day	X	X					X		X												X														
SL-511-NBZ-SB-0.0-0.5	12/4/13 12:40	SO	None	1 - 4 oz glass	10 day													X																						
SL-511-NBZ-SB-2.5-3.5	12/4/13 13:00	SO	None	2 - SS-Sleeve	10 day	X	X					X		X												X														
SL-511-NBZ-SB-2.5-3.5	12/4/13 13:00	SO	None	1 - 4 oz glass	10 day													X																						
SL-511-NBZ-SB-2.5-3.5	12/4/13 13:00	SO	None	2 - Encore	10 day																				X															
SL-548-NBZ-SB-0.0-0.5	12/4/13 14:15	SO	None	1 - SS-Sleeve	10 day									X	X											X														

13013 1438596 7301917-33

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 12/4/2013
CarrierName: FedEx
AirbillNo: 797314998950

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20131204-01
Cooler #: 1
Lab: Lancaster
Lab Phone: 717-556-7259
Lab Address: 2425 New Holland Pike, Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Total Nitrogen ASTM D5373	TOC ASTM D5310	Grain Size ASTM 2488-09a	Other Analysis/Notes

Special Instructions:

Sampler:

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
	12/04/2013	1600									
										12/5/13	0850

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Environmental Sample Administration Receipt Documentation Log

1438596

Client/Project: CDM Smith

Date of Receipt: 12/5/13

Time of Receipt: 08:

Source Code: 5.

Shipping Container Sealed: YES NO

Custody Seal Present * : YES NO

* Custody seal was intact unless otherwise noted in the discrepancy section

Package: Chilled Not Chilled

Temperature of Shipping Containers							
Cooler #	Thermometer ID	Temperature (°C)	Temp Bottle (TB) or Surface Temp (ST)	Wet Ice (WI) or Dry Ice (DI) or Ice Packs (IP)	Ice Present? Y/N	Loose (L) Bagged Ice (B) or NA	Comments
1	D-T131	0.9	TB	WI	Y	B	
2							
3							
4							
5							
6							

Number of Trip Blanks received NOT listed on chain of custody: 0

Paperwork Discrepancy/Unpacking Problems:

Unpacker Signature/Emp#: [signature] 52.. **Date/Time:** 12/5/13 1045

Issued by Dept. 6042 Management

2174.06

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Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	**BMQL**	Below Minimum Quantitation Level
N.D.	none detected	**MPN**	Most Probable Number
TNTC	Too Numerous To Count	**CP Units**	cobalt-chloroplatinate units
IU	International Units	**NTU**	nephelometric turbidity units
umhos/cm	micromhos/cm	**ng**	nanogram(s)
C	degrees Celsius	**F**	degrees Fahrenheit
meq	milliequivalents	**lb.**	pound(s)
g	gram(s)	**kg**	kilogram(s)
µg	microgram(s)	**mg**	milligram(s)
mL	milliliter(s)	**L**	liter(s)
m3	cubic meter(s)	**µL**	microliter(s)
		pg/L	picogram/liter

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Data Qualifiers:

C – result confirmed by reanalysis.

J - estimated value – The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	**B**	Value is <CRDL, but ≥IDL
B	Analyte was also detected in the blank	**E**	Estimated due to interference
C	Pesticide result confirmed by GC/MS	**M**	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	**N**	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	**S**	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	**U**	Compound was not detected
P	Concentration difference between primary and confirmation columns >25%	**W**	Post digestion spike out of control limits
U	Compound was not detected	*****	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	**+**	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as “analyze immediately” are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

January 09, 2014

Project: SSFL Phase 3 Sampling

Submittal Date: 12/09/2013
Group Number: 1439434
SDG: PH140
PO Number: 1204-002-001-AL
State of Sample Origin: CA

Client Sample Description	Lancaster Labs (LL) #
EB1-120513 Water	7306298
EB2-120513 Water	7306299
EB3-120513 Water	7306300
SL-525-NBZ-SB-0.0-0.5 Soil	7306301
SL-525-NBZ-SB-4.0-5.0 Soil	7306302
SL-525-NBZ-SB-4.0-5.0MS Soil	7306303
SL-525-NBZ-SB-4.0-5.0MSD Soil	7306304
SL-825-NBZ-SB-4.0-5.0 Soil	7306305
SL-526-NBZ-SB-0.0-0.5 Soil	7306306
SL-526-NBZ-SB-2.5-3.5 Soil	7306307
SL-527-NBZ-SB-0.0-0.5 Soil	7306308
SL-528-NBZ-SB-0.0-0.5 Soil	7306309
SL-529-NBZ-SB-0.0-0.5 Soil	7306310

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO Eurofins Lancaster Labs Env Attn: Nicole Maljovec

Respectfully Submitted,

Nicole L. Maljovec
Principal Specialist Group Leader

(717) 556-7259

Sample Description: EB1-120513 Water
SSFL Phase 3 Subarea 8

LL Sample # WW 7306298
LL Group # 1439434
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/05/2013 14:30

Submitted: 12/09/2013 09:10
Reported: 01/09/2014 13:32

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

EB1D5 SDG#: PH140-01EB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/l**		**ug/l**	**ug/l**	
12971	Acenaphthene	83-32-9	0.053	U	0.053	0.011	1
12971	Acenaphthylene	208-96-8	0.053	U	0.053	0.011	1
12971	Anthracene	120-12-7	0.053	U	0.053	0.011	1
12971	Benzo(a)anthracene	56-55-3	0.053	U	0.053	0.011	1
12971	Benzo(a)pyrene	50-32-8	0.053	U	0.053	0.011	1
12971	Benzo(b)fluoranthene	205-99-2	0.053	U	0.053	0.011	1
12971	Benzo(e)pyrene	192-97-2	0.053	U	0.053	0.011	1
12971	Benzo(g,h,i)perylene	191-24-2	0.053	U	0.053	0.011	1
12971	Benzo(k)fluoranthene	207-08-9	0.053	U	0.053	0.011	1
12971	Butylbenzylphthalate	85-68-7	1.1	U	1.1	0.053	1
12971	Di-n-butylphthalate	84-74-2	0.21	J	1.1	0.053	1
12971	Chrysene	218-01-9	0.053	U	0.053	0.011	1
12971	Dibenz(a,h)anthracene	53-70-3	0.053	U	0.053	0.011	1
12971	Diethylphthalate	84-66-2	0.50	J	1.1	0.053	1
12971	Dimethylphthalate	131-11-3	1.1	U	1.1	0.053	1
12971	Bis(2-Ethylhexyl)phthalate	117-81-7	0.11	J	1.1	0.053	1
12971	Fluoranthene	206-44-0	0.053	U	0.053	0.011	1
12971	Fluorene	86-73-7	0.053	U	0.053	0.011	1
12971	Indeno(1,2,3-cd)pyrene	193-39-5	0.053	U	0.053	0.011	1
12971	1-Methylnaphthalene	90-12-0	0.053	U	0.053	0.011	1
12971	2-Methylnaphthalene	91-57-6	0.053	U	0.053	0.011	1
12971	Naphthalene	91-20-3	0.053	U	0.053	0.032	1
12971	N-Nitrosodimethylamine	62-75-9	0.053	U	0.053	0.011	1
12971	Di-n-octylphthalate	117-84-0	1.1	U	1.1	0.053	1
12971	Phenanthrene	85-01-8	0.053	U	0.053	0.032	1
12971	Pyrene	129-00-0	0.053	U	0.053	0.011	1

The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken:
The sample was re-extracted outside the method required holding time and the QC is again outside of the acceptance limits. All results are reported from the first trial. Similar results were obtained in both trials.

Target analytes were detected in the method blank associated with the samples as noted on the QC Summary. Since the result is within the acceptance range allowed by the method, the data is reported.

Pesticides/PCBs	**SW-846 8081B**		**ug/l**		**ug/l**	**ug/l**	
10589	Aldrin	309-00-2	0.0083	U	0.0083	0.0017	1
10589	Alpha BHC	319-84-6	0.0083	U	0.0083	0.0025	1
10589	Beta BHC	319-85-7	0.0083	U	0.0083	0.0028	1
10589	Gamma BHC - Lindane	58-89-9	0.0083	U	0.0083	0.0017	1
10589	Chlordane	57-74-9	0.41	U	0.41	0.13	1
10589	p,p-DDD	72-54-8	0.017	U	0.017	0.0041	1
10589	p,p-DDE	72-55-9	0.017	U	0.017	0.0041	1
10589	p,p-DDT	50-29-3	0.017	U	0.017	0.0043	1
10589	Delta BHC	319-86-8	0.0083	U	0.0083	0.0028	1
10589	Dieldrin	60-57-1	0.017	U	0.017	0.0044	1
10589	Endosulfan I	959-98-8	0.0083	U	0.0083	0.0036	1

*=This limit was used in the evaluation of the final result

Sample Description: EB1-120513 Water
SSFL Phase 3 Subarea 8

LL Sample # WW 7306298
LL Group # 1439434
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/05/2013 14:30

Submitted: 12/09/2013 09:10
Reported: 01/09/2014 13:32

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

EB1D5 SDG#: PH140-01EB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
Pesticides/PCBs	**SW-846 8081B**		**ug/l**		**ug/l**	**ug/l**	
10589	Endosulfan II	33213-65-9	0.017	U	0.017	0.012	1
10589	Endosulfan Sulfate	1031-07-8	0.017	U	0.017	0.0048	1
10589	Endrin	72-20-8	0.017	U	0.017	0.0067	1
10589	Endrin Aldehyde	7421-93-4	0.083	U	0.083	0.017	1
10589	Endrin Ketone	53494-70-5	0.017	U	0.017	0.0041	1
10589	Heptachlor	76-44-8	0.0083	U	0.0083	0.0017	1
10589	Heptachlor Epoxide	1024-57-3	0.0083	U	0.0083	0.0019	1
10589	Methoxychlor	72-43-5	0.083	U	0.083	0.025	1
10589	Mirex	2385-85-5	0.041	U	0.041	0.0083	1
10589	Toxaphene	8001-35-2	0.83	U	0.83	0.25	1
Pesticides/PCBs	**SW-846 8082A**		**ug/l**		**ug/l**	**ug/l**	
13092	Aroclor 5432	63496-31-1	0.41	U	0.41	0.083	1
13092	Aroclor 5442	12642-23-8	0.41	U	0.41	0.083	1
13092	Aroclor 5460	11126-42-4	0.41	U	0.41	0.091	1
13092	PCB-1016	12674-11-2	0.41	U	0.41	0.083	1
13092	PCB-1221	11104-28-2	0.41	U	0.41	0.083	1
13092	PCB-1232	11141-16-5	0.41	U	0.41	0.17	1
13092	PCB-1242	53469-21-9	0.41	U	0.41	0.083	1
13092	PCB-1248	12672-29-6	0.41	U	0.41	0.083	1
13092	PCB-1254	11097-69-1	0.41	U	0.41	0.083	1
13092	PCB-1260	11096-82-5	0.41	U	0.41	0.12	1
13092	PCB-1262	37324-23-5	0.41	U	0.41	0.17	1
13092	PCB-1268	11100-14-4	0.41	U	0.41	0.13	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/l**		**mg/l**	**mg/l**	
10365	EFH (C12-C14)	n.a.	0.10	U	0.10	0.051	1
10365	EFH (C15-C20)	n.a.	0.10	U	0.10	0.051	1
10365	EFH (C21-C30)	n.a.	0.10	U	0.10	0.051	1
10365	EFH (C30 - C40)	n.a.	0.51	U	0.51	0.10	1
10365	EFH (C8-C11)	n.a.	0.10	U	0.10	0.051	1

The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.

Wet Chemistry	**SW-846 9040C**		**Std. Units**		**Std. Units**	**Std. Units**	
12152	28b pH (9040B and 9040C)	n.a.	6.0		0.010	0.010	1

*=This limit was used in the evaluation of the final result

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Lancaster Laboratories Environmental
2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Analysis Report

Sample Description: EB1-120513 Water
SSFL Phase 3 Subarea 8

LL Sample # WW 7306298
LL Group # 1439434
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/05/2013 14:30

Submitted: 12/09/2013 09:10
Reported: 01/09/2014 13:32

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

EB1D5 SDG#: PH140-01EB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received MRL*	As Received EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		**pg/l**		**pg/l**	**pg/l**	
10915	2378-TCDD	1746-01-6	1.98	U	1.98	0.916	1
10915	12378-PeCDD	40321-76-4	9.91	U	9.91	0.857	1
10915	123478-HxCDD	39227-28-6	9.91	U	9.91	0.517	1
10915	123678-HxCDD	57653-85-7	9.91	U	9.91	0.535	1
10915	123789-HxCDD	19408-74-3	9.91	U	9.91	0.545	1
10915	1234678-HpCDD	35822-46-9	9.91	U	9.91	0.762	1
10915	OCDD	3268-87-9	1.48	JB	19.8	1.05	1
10915	2378-TCDF	51207-31-9	1.98	U	1.98	0.601	1
10915	12378-PeCDF	57117-41-6	0.646	JQ	9.91	0.499	1
10915	23478-PeCDF	57117-31-4	9.91	U	9.91	0.459	1
10915	123478-HxCDF	70648-26-9	9.91	U	9.91	0.391	1
10915	123678-HxCDF	57117-44-9	0.488	JBQ	9.91	0.395	1
10915	123789-HxCDF	72918-21-9	9.91	U	9.91	0.481	1
10915	234678-HxCDF	60851-34-5	9.91	U	9.91	0.386	1
10915	1234678-HpCDF	67562-39-4	0.815	JBQ	9.91	0.279	1
10915	1234789-HpCDF	55673-89-7	0.583	JBQ	9.91	0.401	1
10915	OCDF	39001-02-0	19.8	U	19.8	1.62	1
D/F Toxic Equivalents	**EPA 1613B**		**pg/l**		**pg/l**	**pg/l**	
10915	TEQ WHO 2005 - EDLx0.0	n.a.	0.000400				1

Labeled Compounds	**%Rec**	**Windows**
13C12-2378-TCDD	63	25 - 164
13C12-12378-PeCDD	55	25 - 181
13C12-123478-HxCDD	75	32 - 141
13C12-123678-HxCDD	76	28 - 130
13C12-123789-HxCDD	71	28 - 130
13C12-1234678-HpCDD	56	23 - 140
13C12-OCDD	43	17 - 157
13C12-2378-TCDF	65	24 - 169
13C12-12378-PeCDF	61	24 - 185
13C12-23478-PeCDF	59	21 - 178
13C12-123478-HxCDF	77	26 - 152
13C12-123678-HxCDF	78	26 - 123
13C12-234678-HxCDF	76	28 - 136
13C12-123789-HxCDF	70	29 - 147
13C12-1234678-HpCDF	63	28 - 143
13C12-1234789-HpCDF	52	26 - 138
13C12-OCDF	42	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column

*=This limit was used in the evaluation of the final result

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Lancaster Laboratories
Environmental

Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: EB1-120513 Water
SSFL Phase 3 Subarea 8

LL Sample # WW 7306298
LL Group # 1439434
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/05/2013 14:30

Submitted: 12/09/2013 09:10
Reported: 01/09/2014 13:32

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

EB1D5 SDG#: PH140-01EB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received MRL*	As Received EDL	Dilution Factor

Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

eurofins
Lancaster Laboratories Environmental
2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Analysis Report

Sample Description: EB1-120513 Water
SSFL Phase 3 Subarea 8

LL Sample # WW 7306298
LL Group # 1439434
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/05/2013 14:30

Submitted: 12/09/2013 09:10
Reported: 01/09/2014 13:32

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

EB1D5 SDG#: PH140-01EB

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12971	7b SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13344WAL026	12/26/2013 20:09	Chad A Moline	1
10466	BNA Water Extraction SIM	SW-846 3510C	1	13344WAL026	12/11/2013 09:40	Anna E Stager	1
10589	22b Pesticides by EPA 8081B	SW-846 8081B	1	133450006A	12/17/2013 00:04	Lisa A Reinert	1
13092	21b PCBs and PCTs 8082A	SW-846 8082A	1	133450007A	12/12/2013 11:03	Monica M Souders	1
13093	PCB/PCT Waters Update IV	SW-846 3510C	1	133450007A	12/11/2013 16:45	JoElla L Rice	1
11120	Pesticide Waters Update IV Ext	SW-846 3510C	1	133450006A	12/11/2013 16:45	JoElla L Rice	1
10365	10b TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	133450013A	12/12/2013 19:49	Heather E Williams	1
11203	EFH Waters Extraction	SW-846 3510C	1	133450013A	12/11/2013 22:00	Elaine F Stoltzfus	1
10915	17b Dioxin/Furan by EPA 1613B	EPA 1613B	1	13350003	12/17/2013 22:31	Joseph D Anderson	1
10914	Dioxins/Furans in Water - SepF	EPA 1613B	1	13350003	12/16/2013 11:50	Brett M Weidman	1
12152	28b pH (9040B and 9040C)	SW-846 9040C	1	13343002204A	12/09/2013 19:21	Michele L Graham	1

*=This limit was used in the evaluation of the final result

Sample Description: EB2-120513 Water
SSFL Phase 3 Subarea 8

LL Sample # WW 7306299
LL Group # 1439434
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/05/2013 15:00

Submitted: 12/09/2013 09:10
Reported: 01/09/2014 13:32

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

EB2D5 SDG#: PH140-02EB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/l**		**ug/l**	**ug/l**	
12971	Acenaphthene	83-32-9	0.052	U	0.052	0.010	1
12971	Acenaphthylene	208-96-8	0.052	U	0.052	0.010	1
12971	Anthracene	120-12-7	0.052	U	0.052	0.010	1
12971	Benzo(a)anthracene	56-55-3	0.052	U	0.052	0.010	1
12971	Benzo(a)pyrene	50-32-8	0.052	U	0.052	0.010	1
12971	Benzo(b)fluoranthene	205-99-2	0.052	U	0.052	0.010	1
12971	Benzo(e)pyrene	192-97-2	0.052	U	0.052	0.010	1
12971	Benzo(g,h,i)perylene	191-24-2	0.052	U	0.052	0.010	1
12971	Benzo(k)fluoranthene	207-08-9	0.052	U	0.052	0.010	1
12971	Butylbenzylphthalate	85-68-7	1.0	U	1.0	0.052	1
12971	Di-n-butylphthalate	84-74-2	0.20	J	1.0	0.052	1
12971	Chrysene	218-01-9	0.052	U	0.052	0.010	1
12971	Dibenz(a,h)anthracene	53-70-3	0.052	U	0.052	0.010	1
12971	Diethylphthalate	84-66-2	0.50	J	1.0	0.052	1
12971	Dimethylphthalate	131-11-3	1.0	U	1.0	0.052	1
12971	Bis(2-Ethylhexyl)phthalate	117-81-7	0.095	J	1.0	0.052	1
12971	Fluoranthene	206-44-0	0.052	U	0.052	0.010	1
12971	Fluorene	86-73-7	0.052	U	0.052	0.010	1
12971	Indeno(1,2,3-cd)pyrene	193-39-5	0.052	U	0.052	0.010	1
12971	1-Methylnaphthalene	90-12-0	0.052	U	0.052	0.010	1
12971	2-Methylnaphthalene	91-57-6	0.052	U	0.052	0.010	1
12971	Naphthalene	91-20-3	0.052	U	0.052	0.031	1
12971	N-Nitrosodimethylamine	62-75-9	0.052	U	0.052	0.010	1
12971	Di-n-octylphthalate	117-84-0	1.0	U	1.0	0.052	1
12971	Phenanthrene	85-01-8	0.052	U	0.052	0.031	1
12971	Pyrene	129-00-0	0.052	U	0.052	0.010	1

The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken:
The sample was re-extracted outside the method required holding time and the QC is again outside of the acceptance limits. All results are reported from the first trial. Similar results were obtained in both trials.

Target analytes were detected in the method blank associated with the samples as noted on the QC Summary. Since the result is within the acceptance range allowed by the method, the data is reported.

Herbicides	**SW-846 8151A**		**ug/l**		**ug/l**	**ug/l**	
10407	2,4-D	94-75-7	0.49	U	0.49	0.16	1
10407	Dalapon	75-99-0	1.2	U	1.2	0.24	1
10407	2,4-DB	94-82-6	0.98	U	0.98	0.29	1
10407	Dicamba	1918-00-9	0.29	U	0.29	0.078	1
10407	Dinoseb	88-85-7	0.49	U	0.49	0.12	1

The QC window for dinoseb is advisory due to the erratic performance of the analyte using this method.

10407	2,4-DP (Dichlorprop)	120-36-5	0.49	U	0.49	0.16	1
10407	MCPA	94-74-6	200	U	200	49	1
10407	MCPP	93-65-2	200	U	200	49	1
10407	2,4,5-T	93-76-5	0.049	U	0.049	0.015	1

*=This limit was used in the evaluation of the final result

Sample Description: EB2-120513 Water
SSFL Phase 3 Subarea 8

LL Sample # WW 7306299
LL Group # 1439434
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/05/2013 15:00

Submitted: 12/09/2013 09:10
Reported: 01/09/2014 13:32

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

EB2D5 SDG#: PH140-02EB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
Herbicides	**SW-846 8151A**		**ug/l**	**ug/l**	**ug/l**	
10407	2,4,5-TP	93-72-1	0.049 U	0.049	0.0098	1
Pesticides/PCBs	**SW-846 8081B**		**ug/l**	**ug/l**	**ug/l**	
10589	Aldrin	309-00-2	0.0081 U	0.0081	0.0016	1
10589	Alpha BHC	319-84-6	0.0081 U	0.0081	0.0024	1
10589	Beta BHC	319-85-7	0.0081 U	0.0081	0.0028	1
10589	Gamma BHC - Lindane	58-89-9	0.0081 U	0.0081	0.0016	1
10589	Chlordane	57-74-9	0.41 U	0.41	0.13	1
10589	p,p-DDD	72-54-8	0.016 U	0.016	0.0041	1
10589	p,p-DDE	72-55-9	0.016 U	0.016	0.0041	1
10589	p,p-DDT	50-29-3	0.016 U	0.016	0.0042	1
10589	Delta BHC	319-86-8	0.0081 U	0.0081	0.0028	1
10589	Dieldrin	60-57-1	0.016 U	0.016	0.0043	1
10589	Endosulfan I	959-98-8	0.0081 U	0.0081	0.0035	1
10589	Endosulfan II	33213-65-9	0.016 U	0.016	0.012	1
10589	Endosulfan Sulfate	1031-07-8	0.016 U	0.016	0.0047	1
10589	Endrin	72-20-8	0.016 U	0.016	0.0066	1
10589	Endrin Aldehyde	7421-93-4	0.081 U	0.081	0.016	1
10589	Endrin Ketone	53494-70-5	0.016 U	0.016	0.0041	1
10589	Heptachlor	76-44-8	0.0081 U	0.0081	0.0016	1
10589	Heptachlor Epoxide	1024-57-3	0.0081 U	0.0081	0.0019	1
10589	Methoxychlor	72-43-5	0.081 U	0.081	0.024	1
10589	Mirex	2385-85-5	0.041 U	0.041	0.0081	1
10589	Toxaphene	8001-35-2	0.81 U	0.81	0.24	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/l**	**mg/l**	**mg/l**	
10365	EFH (C12-C14)	n.a.	0.097 U	0.097	0.049	1
10365	EFH (C15-C20)	n.a.	0.097 U	0.097	0.049	1
10365	EFH (C21-C30)	n.a.	0.097 U	0.097	0.049	1
10365	EFH (C30 - C40)	n.a.	0.49 U	0.49	0.097	1
10365	EFH (C8-C11)	n.a.	0.097 U	0.097	0.049	1

The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.

Metals	**SW-846 6010C**		**mg/l**	**mg/l**	**mg/l**	
01743	Aluminum	7429-90-5	0.400 U	0.400	0.0828	1
07044	Antimony	7440-36-0	0.0400 U	0.0400	0.0053	1
07035	Arsenic	7440-38-2	0.0400 U	0.0400	0.0068	1
07046	Barium	7440-39-3	0.0100 U	0.0100	0.00033	1
07047	Beryllium	7440-41-7	0.0100 U	0.0100	0.00067	1
08014	Boron	7440-42-8	0.100 U	0.100	0.0084	1
07049	Cadmium	7440-43-9	0.0100 U	0.0100	0.00076	1
01750	Calcium	7440-70-2	0.400 U	0.400	0.0334	1
07051	Chromium	7440-47-3	0.0300 U	0.0300	0.0016	1
07052	Cobalt	7440-48-4	0.0100 U	0.0100	0.0013	1
07053	Copper	7440-50-8	0.0200 U	0.0200	0.0027	1
01754	Iron	7439-89-6	0.400 U	0.400	0.0430	1
07055	Lead	7439-92-1	0.0300 U	0.0300	0.0047	1
01756	Lithium	7439-93-2	0.0400 U	0.0400	0.0047	1

*=This limit was used in the evaluation of the final result

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Lancaster Laboratories Environmental
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Analysis Report

Sample Description: EB2-120513 Water
SSFL Phase 3 Subarea 8

LL Sample # WW 7306299
LL Group # 1439434
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/05/2013 15:00

Submitted: 12/09/2013 09:10
Reported: 01/09/2014 13:32

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

EB2D5 SDG#: PH140-02EB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/l**	**mg/l**	**mg/l**	
01757	Magnesium	7439-95-4	0.200 U	0.200	0.0167	1
07058	Manganese	7439-96-5	0.0100 U	0.0100	0.00083	1
07060	Molybdenum	7439-98-7	0.0200 U	0.0200	0.0017	1
07061	Nickel	7440-02-0	0.0200 U	0.0200	0.0015	1
10143	Phosphorus	7723-14-0	0.200 U	0.200	0.0418	1
01762	Potassium	7440-09-7	1.00 U	1.00	0.0980	1
01767	Sodium	7440-23-5	2.00 U	2.00	0.167	1
07069	Tin	7440-31-5	0.0400 U	0.0400	0.0029	1
07070	Titanium	7440-32-6	0.0200 U	0.0200	0.0017	1
07071	Vanadium	7440-62-2	0.0100 U	0.0100	0.0020	1
07072	Zinc	7440-66-6	0.0048 J	0.0400	0.0020	1
10144	Zirconium	7440-67-7	0.100 U	0.100	0.0084	1
	SW-846 6020A		**mg/l**	**mg/l**	**mg/l**	
06041	Selenium	7782-49-2	0.0040 U	0.0040	0.00050	1
06042	Silver	7440-22-4	0.0010 U	0.0010	0.00011	1
06044	Strontium	7440-24-6	0.0020 U	0.0020	0.00034	1
06045	Thallium	7440-28-0	0.0010 U	0.0010	0.00015	1
	SW-846 7470A		**mg/l**	**mg/l**	**mg/l**	
00259	3b Mercury 7470A	7439-97-6	0.00020 U	0.00020	0.000060	1
Wet Chemistry	**SW-846 9040C**		**Std. Units**	**Std. Units**	**Std. Units**	
12152	28b pH (9040B and 9040C)	n.a.	5.7	0.010	0.010	1

*=This limit was used in the evaluation of the final result

Sample Description: EB2-120513 Water
SSFL Phase 3 Subarea 8

LL Sample # WW 7306299
LL Group # 1439434
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/05/2013 15:00

Submitted: 12/09/2013 09:10
Reported: 01/09/2014 13:32

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

EB2D5 SDG#: PH140-02EB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received MRL*	As Received EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		**pg/l**		**pg/l**	**pg/l**	
10915	2378-TCDD	1746-01-6	1.95	U	1.95	1.11	1
10915	12378-PeCDD	40321-76-4	9.74	U	9.74	0.990	1
10915	123478-HxCDD	39227-28-6	9.74	U	9.74	0.575	1
10915	123678-HxCDD	57653-85-7	9.74	U	9.74	0.589	1
10915	123789-HxCDD	19408-74-3	9.74	U	9.74	0.593	1
10915	1234678-HpCDD	35822-46-9	9.74	U	9.74	0.935	1
10915	OCDD	3268-87-9	1.88	JBQ	19.5	1.66	1
10915	2378-TCDF	51207-31-9	1.95	U	1.95	0.724	1
10915	12378-PeCDF	57117-41-6	9.74	U	9.74	0.618	1
10915	23478-PeCDF	57117-31-4	0.627	JBQ	9.74	0.538	1
10915	123478-HxCDF	70648-26-9	9.74	U	9.74	0.501	1
10915	123678-HxCDF	57117-44-9	9.74	U	9.74	0.508	1
10915	123789-HxCDF	72918-21-9	9.74	U	9.74	0.694	1
10915	234678-HxCDF	60851-34-5	9.74	U	9.74	0.511	1
10915	1234678-HpCDF	67562-39-4	9.74	U	9.74	0.361	1
10915	1234789-HpCDF	55673-89-7	9.74	U	9.74	0.561	1
10915	OCDF	39001-02-0	19.5	U	19.5	2.21	1
D/F Toxic Equivalents	**EPA 1613B**		**pg/l**		**pg/l**	**pg/l**	
10915	TEQ WHO 2005 - EDLx0.0	n.a.	U				1

Labeled Compounds	**%Rec**	**Windows**
13C12-2378-TCDD	77	25 - 164
13C12-12378-PeCDD	64	25 - 181
13C12-123478-HxCDD	89	32 - 141
13C12-123678-HxCDD	92	28 - 130
13C12-123789-HxCDD	87	28 - 130
13C12-1234678-HpCDD	65	23 - 140
13C12-OCDD	45	17 - 157
13C12-2378-TCDF	78	24 - 169
13C12-12378-PeCDF	68	24 - 185
13C12-23478-PeCDF	68	21 - 178
13C12-123478-HxCDF	96	26 - 152
13C12-123678-HxCDF	98	26 - 123
13C12-234678-HxCDF	90	28 - 136
13C12-123789-HxCDF	79	29 - 147
13C12-1234678-HpCDF	73	28 - 143
13C12-1234789-HpCDF	58	26 - 138
13C12-OCDF	45	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column

*=This limit was used in the evaluation of the final result

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Analysis Report

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Sample Description: EB2-120513 Water
SSFL Phase 3 Subarea 8

LL Sample # WW 7306299
LL Group # 1439434
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/05/2013 15:00

Submitted: 12/09/2013 09:10
Reported: 01/09/2014 13:32

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

EB2D5 SDG#: PH140-02EB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received MRL*	As Received EDL	Dilution Factor

Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: EB2-120513 Water
SSFL Phase 3 Subarea 8

LL Sample # WW 7306299
LL Group # 1439434
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/05/2013 15:00

Submitted: 12/09/2013 09:10
Reported: 01/09/2014 13:32

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

EB2D5 SDG#: PH140-02EB

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12971	7b SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13344WAL026	12/26/2013 20:37	Chad A Moline	1
10466	BNA Water Extraction SIM	SW-846 3510C	1	13344WAL026	12/11/2013 09:40	Anna E Stager	1
10407	24b Herbicides by EPA 8151A	SW-846 8151A	1	133450017A	12/16/2013 11:35	Melissa McDermott	1
10589	22b Pesticides by EPA 8081B	SW-846 8081B	1	133450006A	12/17/2013 00:16	Lisa A Reinert	1
11120	Pesticide Waters Update IV Ext	SW-846 3510C	1	133450006A	12/11/2013 16:45	JoElla L Rice	1
00816	Water Sample Herbicide Extract	SW-846 8151A	1	133450017A	12/11/2013 20:35	Karen L Beyer	1
10365	10b TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	133450013A	12/12/2013 20:11	Heather E Williams	1
11203	EFH Waters Extraction	SW-846 3510C	1	133450013A	12/11/2013 22:00	Elaine F Stoltzfus	1
10915	17b Dioxin/Furan by EPA 1613B	EPA 1613B	1	13350003	12/17/2013 23:28	Joseph D Anderson	1
10914	Dioxins/Furans in Water - SepF	EPA 1613B	1	13350003	12/16/2013 11:50	Brett M Weidman	1
01743	Aluminum	SW-846 6010C	1	133430635002	12/11/2013 03:41	Tara L Snyder	1
07044	Antimony	SW-846 6010C	1	133430635002	12/11/2013 03:41	Tara L Snyder	1
07035	Arsenic	SW-846 6010C	1	133430635002	12/11/2013 03:41	Tara L Snyder	1
07046	Barium	SW-846 6010C	1	133430635002	12/11/2013 03:41	Tara L Snyder	1
07047	Beryllium	SW-846 6010C	1	133430635002	12/11/2013 03:41	Tara L Snyder	1
08014	Boron	SW-846 6010C	1	133430635002	12/11/2013 03:41	Tara L Snyder	1
07049	Cadmium	SW-846 6010C	1	133430635002	12/11/2013 03:41	Tara L Snyder	1
01750	Calcium	SW-846 6010C	1	133430635002	12/11/2013 03:41	Tara L Snyder	1
07051	Chromium	SW-846 6010C	1	133430635002	12/11/2013 03:41	Tara L Snyder	1
07052	Cobalt	SW-846 6010C	1	133430635002	12/11/2013 03:41	Tara L Snyder	1
07053	Copper	SW-846 6010C	1	133430635002	12/11/2013 03:41	Tara L Snyder	1
01754	Iron	SW-846 6010C	1	133430635002	12/11/2013 03:41	Tara L Snyder	1
07055	Lead	SW-846 6010C	1	133430635002	12/11/2013 03:41	Tara L Snyder	1
01756	Lithium	SW-846 6010C	1	133430635002	12/11/2013 03:41	Tara L Snyder	1
01757	Magnesium	SW-846 6010C	1	133430635002	12/11/2013 03:41	Tara L Snyder	1
07058	Manganese	SW-846 6010C	1	133430635002	12/11/2013 03:41	Tara L Snyder	1
07060	Molybdenum	SW-846 6010C	1	133430635002	12/11/2013 03:41	Tara L Snyder	1
07061	Nickel	SW-846 6010C	1	133430635002	12/11/2013 03:41	Tara L Snyder	1
10143	Phosphorus	SW-846 6010C	1	133430635002	12/11/2013 03:41	Tara L Snyder	1
01762	Potassium	SW-846 6010C	1	133430635002	12/11/2013 03:41	Tara L Snyder	1
01767	Sodium	SW-846 6010C	1	133430635002	12/11/2013 03:41	Tara L Snyder	1
07069	Tin	SW-846 6010C	1	133430635002	12/11/2013 03:41	Tara L Snyder	1
07070	Titanium	SW-846 6010C	1	133430635002	12/11/2013 03:41	Tara L Snyder	1
07071	Vanadium	SW-846 6010C	1	133430635002	12/11/2013 03:41	Tara L Snyder	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: EB2-120513 Water
SSFL Phase 3 Subarea 8

LL Sample # WW 7306299
LL Group # 1439434
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/05/2013 15:00

Submitted: 12/09/2013 09:10
Reported: 01/09/2014 13:32

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

EB2D5 SDG#: PH140-02EB

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07072	Zinc	SW-846 6010C	1	133430635002	12/11/2013 03:41	Tara L Snyder	1
10144	Zirconium	SW-846 6010C	1	133430635002	12/11/2013 03:41	Tara L Snyder	1
06041	Selenium	SW-846 6020A	1	133430639002B	12/11/2013 15:33	Parker D Lindstrom	1
06042	Silver	SW-846 6020A	1	133430639002A	12/11/2013 13:37	Parker D Lindstrom	1
06044	Strontium	SW-846 6020A	1	133430639002A	12/11/2013 13:37	Parker D Lindstrom	1
06045	Thallium	SW-846 6020A	1	133430639002A	12/11/2013 13:37	Parker D Lindstrom	1
00259	3b Mercury 7470A	SW-846 7470A	1	133515713003	12/18/2013 07:30	Damary Valentin	1
10635	WW SW846(IV) ICP Dig (tot rec)	SW-846 3005A	1	133430635002	12/10/2013 12:48	James L Mertz	1
10639	ICP/MS SW846 (IV) Water Digest	SW-846 3010A modified	1	133430639002	12/10/2013 11:24	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	3	133515713003	12/17/2013 15:00	Nelli S Markaryan	1
12152	28b pH (9040B and 9040C)	SW-846 9040C	1	13343002204A	12/09/2013 19:24	Michele L Graham	1

*=This limit was used in the evaluation of the final result

Sample Description: EB3-120513 Water
SSFL Phase 3 Subarea 8

LL Sample # WW 7306300
LL Group # 1439434
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/05/2013 15:30

Submitted: 12/09/2013 09:10
Reported: 01/09/2014 13:32

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

EB3D5 SDG#: PH140-03EB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		ug/l		ug/l	ug/l	
12971	Acenaphthene	83-32-9	0.050	U	0.050	0.010	1
12971	Acenaphthylene	208-96-8	0.050	U	0.050	0.010	1
12971	Anthracene	120-12-7	0.050	U	0.050	0.010	1
12971	Benzo(a)anthracene	56-55-3	0.050	U	0.050	0.010	1
12971	Benzo(a)pyrene	50-32-8	0.050	U	0.050	0.010	1
12971	Benzo(b)fluoranthene	205-99-2	0.050	U	0.050	0.010	1
12971	Benzo(e)pyrene	192-97-2	0.050	U	0.050	0.010	1
12971	Benzo(g,h,i)perylene	191-24-2	0.050	U	0.050	0.010	1
12971	Benzo(k)fluoranthene	207-08-9	0.050	U	0.050	0.010	1
12971	Butylbenzylphthalate	85-68-7	1.0	U	1.0	0.050	1
12971	Di-n-butylphthalate	84-74-2	0.20	J	1.0	0.050	1
12971	Chrysene	218-01-9	0.050	U	0.050	0.010	1
12971	Dibenz(a,h)anthracene	53-70-3	0.050	U	0.050	0.010	1
12971	Diethylphthalate	84-66-2	0.51	J	1.0	0.050	1
12971	Dimethylphthalate	131-11-3	1.0	U	1.0	0.050	1
12971	Bis(2-Ethylhexyl)phthalate	117-81-7	0.063	J	1.0	0.050	1
12971	Fluoranthene	206-44-0	0.050	U	0.050	0.010	1
12971	Fluorene	86-73-7	0.050	U	0.050	0.010	1
12971	Indeno(1,2,3-cd)pyrene	193-39-5	0.050	U	0.050	0.010	1
12971	1-Methylnaphthalene	90-12-0	0.050	U	0.050	0.010	1
12971	2-Methylnaphthalene	91-57-6	0.050	U	0.050	0.010	1
12971	Naphthalene	91-20-3	0.050	U	0.050	0.030	1
12971	N-Nitrosodimethylamine	62-75-9	0.050	U	0.050	0.010	1
12971	Di-n-octylphthalate	117-84-0	1.0	U	1.0	0.050	1
12971	Phenanthrene	85-01-8	0.050	U	0.050	0.030	1
12971	Pyrene	129-00-0	0.050	U	0.050	0.010	1

The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken:
The sample was re-extracted outside the method required holding time and the QC is again outside of the acceptance limits. All results are reported from the first trial. Similar results were obtained in both trials.

Target analytes were detected in the method blank associated with the samples as noted on the QC Summary. Since the result is within the acceptance range allowed by the method, the data is reported.

Herbicides	**SW-846 8151A**		ug/l		ug/l	ug/l	
10407	2,4-D	94-75-7	0.49	U	0.49	0.16	1
10407	Dalapon	75-99-0	1.2	U	1.2	0.24	1
10407	2,4-DB	94-82-6	0.97	U	0.97	0.29	1
10407	Dicamba	1918-00-9	0.29	U	0.29	0.078	1
10407	Dinoseb	88-85-7	0.49	U	0.49	0.12	1

The QC window for dinoseb is advisory due to the erratic performance of the analyte using this method.

10407	2,4-DP (Dichlorprop)	120-36-5	0.49	U	0.49	0.16	1
10407	MCPA	94-74-6	190	U	190	49	1
10407	MCPP	93-65-2	190	U	190	49	1
10407	2,4,5-T	93-76-5	0.049	U	0.049	0.015	1

*=This limit was used in the evaluation of the final result

Sample Description: EB3-120513 Water
SSFL Phase 3 Subarea 8

LL Sample # WW 7306300
LL Group # 1439434
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/05/2013 15:30

Submitted: 12/09/2013 09:10
Reported: 01/09/2014 13:32

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

EB3D5 SDG#: PH140-03EB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
Herbicides	**SW-846 8151A**		**ug/l**		**ug/l**	**ug/l**	
10407	2,4,5-TP	93-72-1	0.049	U	0.049	0.0097	1
Pesticides/PCBs	**SW-846 8081B**		**ug/l**		**ug/l**	**ug/l**	
10589	Aldrin	309-00-2	0.0080	U	0.0080	0.0016	1
10589	Alpha BHC	319-84-6	0.0080	U	0.0080	0.0024	1
10589	Beta BHC	319-85-7	0.0080	U	0.0080	0.0027	1
10589	Gamma BHC - Lindane	58-89-9	0.0080	U	0.0080	0.0016	1
10589	Chlordane	57-74-9	0.40	U	0.40	0.13	1
10589	p,p-DDD	72-54-8	0.016	U	0.016	0.0040	1
10589	p,p-DDE	72-55-9	0.016	U	0.016	0.0040	1
10589	p,p-DDT	50-29-3	0.016	U	0.016	0.0042	1
10589	Delta BHC	319-86-8	0.0080	U	0.0080	0.0027	1
10589	Dieldrin	60-57-1	0.016	U	0.016	0.0043	1
10589	Endosulfan I	959-98-8	0.0080	U	0.0080	0.0035	1
10589	Endosulfan II	33213-65-9	0.016	U	0.016	0.012	1
10589	Endosulfan Sulfate	1031-07-8	0.016	U	0.016	0.0047	1
10589	Endrin	72-20-8	0.016	U	0.016	0.0065	1
10589	Endrin Aldehyde	7421-93-4	0.080	U	0.080	0.016	1
10589	Endrin Ketone	53494-70-5	0.016	U	0.016	0.0040	1
10589	Heptachlor	76-44-8	0.0080	U	0.0080	0.0016	1
10589	Heptachlor Epoxide	1024-57-3	0.0080	U	0.0080	0.0018	1
10589	Methoxychlor	72-43-5	0.080	U	0.080	0.024	1
10589	Mirex	2385-85-5	0.040	U	0.040	0.0080	1
10589	Toxaphene	8001-35-2	0.80	U	0.80	0.24	1
Pesticides/PCBs	**SW-846 8082A**		**ug/l**		**ug/l**	**ug/l**	
13092	Aroclor 5432	63496-31-1	0.40	U	0.40	0.080	1
13092	Aroclor 5442	12642-23-8	0.40	U	0.40	0.080	1
13092	Aroclor 5460	11126-42-4	0.40	U	0.40	0.088	1
13092	PCB-1016	12674-11-2	0.40	U	0.40	0.080	1
13092	PCB-1221	11104-28-2	0.40	U	0.40	0.080	1
13092	PCB-1232	11141-16-5	0.40	U	0.40	0.16	1
13092	PCB-1242	53469-21-9	0.40	U	0.40	0.080	1
13092	PCB-1248	12672-29-6	0.40	U	0.40	0.080	1
13092	PCB-1254	11097-69-1	0.40	U	0.40	0.080	1
13092	PCB-1260	11096-82-5	0.40	U	0.40	0.12	1
13092	PCB-1262	37324-23-5	0.40	U	0.40	0.16	1
13092	PCB-1268	11100-14-4	0.40	U	0.40	0.13	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/l**		**mg/l**	**mg/l**	
10365	EFH (C12-C14)	n.a.	0.10	U	0.10	0.052	1
10365	EFH (C15-C20)	n.a.	0.10	U	0.10	0.052	1
10365	EFH (C21-C30)	n.a.	0.10	U	0.10	0.052	1
10365	EFH (C30 - C40)	n.a.	0.52	U	0.52	0.10	1
10365	EFH (C8-C11)	n.a.	0.10	U	0.10	0.052	1

The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.

Metals	**SW-846 6010C**		**mg/l**		**mg/l**	**mg/l**	

*=This limit was used in the evaluation of the final result

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Lancaster Laboratories Environmental
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Analysis Report

Sample Description: EB3-120513 Water
SSFL Phase 3 Subarea 8

LL Sample # WW 7306300
LL Group # 1439434
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/05/2013 15:30

Submitted: 12/09/2013 09:10
Reported: 01/09/2014 13:32

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

EB3D5 SDG#: PH140-03EB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/l**	**mg/l**	**mg/l**	
01743	Aluminum	7429-90-5	0.400 U	0.400	0.0828	1
07044	Antimony	7440-36-0	0.0400 U	0.0400	0.0053	1
07035	Arsenic	7440-38-2	0.0400 U	0.0400	0.0068	1
07046	Barium	7440-39-3	0.0100 U	0.0100	0.00033	1
07047	Beryllium	7440-41-7	0.0100 U	0.0100	0.00067	1
08014	Boron	7440-42-8	0.100 U	0.100	0.0084	1
07049	Cadmium	7440-43-9	0.0100 U	0.0100	0.00076	1
01750	Calcium	7440-70-2	0.400 U	0.400	0.0334	1
07051	Chromium	7440-47-3	0.0300 U	0.0300	0.0016	1
07052	Cobalt	7440-48-4	0.0100 U	0.0100	0.0013	1
07053	Copper	7440-50-8	0.0200 U	0.0200	0.0027	1
01754	Iron	7439-89-6	0.400 U	0.400	0.0430	1
07055	Lead	7439-92-1	0.0300 U	0.0300	0.0047	1
01756	Lithium	7439-93-2	0.0400 U	0.0400	0.0047	1
01757	Magnesium	7439-95-4	0.200 U	0.200	0.0167	1
07058	Manganese	7439-96-5	0.0100 U	0.0100	0.00083	1
07060	Molybdenum	7439-98-7	0.0200 U	0.0200	0.0017	1
07061	Nickel	7440-02-0	0.0200 U	0.0200	0.0015	1
10143	Phosphorus	7723-14-0	0.200 U	0.200	0.0418	1
01762	Potassium	7440-09-7	1.00 U	1.00	0.0980	1
01767	Sodium	7440-23-5	2.00 U	2.00	0.167	1
07069	Tin	7440-31-5	0.0400 U	0.0400	0.0029	1
07070	Titanium	7440-32-6	0.0200 U	0.0200	0.0017	1
07071	Vanadium	7440-62-2	0.0100 U	0.0100	0.0020	1
07072	Zinc	7440-66-6	0.0062 J	0.0400	0.0020	1
10144	Zirconium	7440-67-7	0.100 U	0.100	0.0084	1
	SW-846 6020A		**mg/l**	**mg/l**	**mg/l**	
06041	Selenium	7782-49-2	0.0040 U	0.0040	0.00050	1
06042	Silver	7440-22-4	0.0010 U	0.0010	0.00011	1
06044	Strontium	7440-24-6	0.0020 U	0.0020	0.00034	1
06045	Thallium	7440-28-0	0.0010 U	0.0010	0.00015	1
	SW-846 7470A		**mg/l**	**mg/l**	**mg/l**	
00259	3b Mercury 7470A	7439-97-6	0.00020 U	0.00020	0.000060	1
Wet Chemistry	**SW-846 9012B**		**mg/l**	**mg/l**	**mg/l**	
08255	16b Cyanide by EPA 9012B	57-12-5	0.010 U	0.010	0.0050	1
	SW-846 9040C		**Std. Units**	**Std. Units**	**Std. Units**	
12152	28b pH (9040B and 9040C)	n.a.	5.6	0.010	0.010	1

*=This limit was used in the evaluation of the final result

Sample Description: EB3-120513 Water
SSFL Phase 3 Subarea 8

LL Sample # WW 7306300
LL Group # 1439434
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/05/2013 15:30

Submitted: 12/09/2013 09:10
Reported: 01/09/2014 13:32

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

EB3D5 SDG#: PH140-03EB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received MRL*	As Received EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		**pg/l**		**pg/l**	**pg/l**	
10915	2378-TCDD	1746-01-6	1.96	U	1.96	0.372	1
10915	12378-PeCDD	40321-76-4	0.635	JQ	9.80	0.285	1
10915	123478-HxCDD	39227-28-6	9.80	U	9.80	0.174	1
10915	123678-HxCDD	57653-85-7	9.80	U	9.80	0.181	1
10915	123789-HxCDD	19408-74-3	0.353	JBQ	9.80	0.175	1
10915	1234678-HpCDD	35822-46-9	0.436	JQ	9.80	0.207	1
10915	OCDD	3268-87-9	1.64	JBQ	19.6	0.236	1
10915	2378-TCDF	51207-31-9	1.96	U	1.96	0.252	1
10915	12378-PeCDF	57117-41-6	0.499	JQ	9.80	0.160	1
10915	23478-PeCDF	57117-31-4	0.244	JBQ	9.80	0.151	1
10915	123478-HxCDF	70648-26-9	0.225	JQ	9.80	0.105	1
10915	123678-HxCDF	57117-44-9	0.118	JBQ	9.80	0.106	1
10915	123789-HxCDF	72918-21-9	0.390	J	9.80	0.118	1
10915	234678-HxCDF	60851-34-5	9.80	U	9.80	0.104	1
10915	1234678-HpCDF	67562-39-4	0.380	JBQ	9.80	0.0657	1
10915	1234789-HpCDF	55673-89-7	0.446	JBQ	9.80	0.0796	1
10915	OCDF	39001-02-0	1.02	JBQ	19.6	0.257	1
D/F Toxic Equivalents	**EPA 1613B**		**pg/l**		**pg/l**	**pg/l**	
10915	TEQ WHO 2005 - EDLx0.0	n.a.	0.0390				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	77	25 - 164
13C12-12378-PeCDD	75	25 - 181
13C12-123478-HxCDD	87	32 - 141
13C12-123678-HxCDD	85	28 - 130
13C12-123789-HxCDD	83	28 - 130
13C12-1234678-HpCDD	80	23 - 140
13C12-OCDD	77	17 - 157
13C12-2378-TCDF	77	24 - 169
13C12-12378-PeCDF	84	24 - 185
13C12-23478-PeCDF	81	21 - 178
13C12-123478-HxCDF	96	26 - 152
13C12-123678-HxCDF	94	26 - 123
13C12-234678-HxCDF	92	28 - 136
13C12-123789-HxCDF	92	29 - 147
13C12-1234678-HpCDF	90	28 - 143
13C12-1234789-HpCDF	82	26 - 138
13C12-OCDF	83	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column

*=This limit was used in the evaluation of the final result

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Lancaster Laboratories
Environmental

Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: EB3-120513 Water
SSFL Phase 3 Subarea 8

LL Sample # WW 7306300
LL Group # 1439434
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/05/2013 15:30

Submitted: 12/09/2013 09:10
Reported: 01/09/2014 13:32

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

EB3D5 SDG#: PH140-03EB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received MRL*	As Received EDL	Dilution Factor

Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: EB3-120513 Water
SSFL Phase 3 Subarea 8

LL Sample # WW 7306300
LL Group # 1439434
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/05/2013 15:30

Submitted: 12/09/2013 09:10
Reported: 01/09/2014 13:32

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

EB3D5 SDG#: PH140-03EB

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12971	7b SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13344WAL026	12/26/2013 21:05	Chad A Moline	1
10466	BNA Water Extraction SIM	SW-846 3510C	1	13344WAL026	12/11/2013 09:40	Anna E Stager	1
10407	24b Herbicides by EPA 8151A	SW-846 8151A	1	133450017A	12/16/2013 12:02	Melissa McDermott	1
10589	22b Pesticides by EPA 8081B	SW-846 8081B	1	133450006A	12/17/2013 00:28	Lisa A Reinert	1
13092	21b PCBs and PCTs 8082A	SW-846 8082A	1	133450007A	12/12/2013 11:39	Monica M Souders	1
13093	PCB/PCT Waters Update IV	SW-846 3510C	1	133450007A	12/11/2013 16:45	JoElla L Rice	1
11120	Pesticide Waters Update IV Ext	SW-846 3510C	1	133450006A	12/11/2013 16:45	JoElla L Rice	1
00816	Water Sample Herbicide Extract	SW-846 8151A	1	133450017A	12/11/2013 20:35	Karen L Beyer	1
10365	10b TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	133450013A	12/12/2013 20:33	Heather E Williams	1
11203	EFH Waters Extraction	SW-846 3510C	1	133450013A	12/11/2013 22:00	Elaine F Stoltzfus	1
10915	17b Dioxin/Furan by EPA 1613B	EPA 1613B	1	13350003	12/19/2013 03:04	Nelson H Risser	1
10914	Dioxins/Furans in Water - SepF	EPA 1613B	1	13350003	12/16/2013 11:50	Brett M Weidman	1
01743	Aluminum	SW-846 6010C	1	133430635002	12/11/2013 03:44	Tara L Snyder	1
07044	Antimony	SW-846 6010C	1	133430635002	12/11/2013 03:44	Tara L Snyder	1
07035	Arsenic	SW-846 6010C	1	133430635002	12/11/2013 03:44	Tara L Snyder	1
07046	Barium	SW-846 6010C	1	133430635002	12/11/2013 03:44	Tara L Snyder	1
07047	Beryllium	SW-846 6010C	1	133430635002	12/11/2013 03:44	Tara L Snyder	1
08014	Boron	SW-846 6010C	1	133430635002	12/11/2013 03:44	Tara L Snyder	1
07049	Cadmium	SW-846 6010C	1	133430635002	12/11/2013 03:44	Tara L Snyder	1
01750	Calcium	SW-846 6010C	1	133430635002	12/11/2013 03:44	Tara L Snyder	1
07051	Chromium	SW-846 6010C	1	133430635002	12/11/2013 03:44	Tara L Snyder	1
07052	Cobalt	SW-846 6010C	1	133430635002	12/11/2013 03:44	Tara L Snyder	1
07053	Copper	SW-846 6010C	1	133430635002	12/11/2013 03:44	Tara L Snyder	1
01754	Iron	SW-846 6010C	1	133430635002	12/11/2013 03:44	Tara L Snyder	1
07055	Lead	SW-846 6010C	1	133430635002	12/11/2013 03:44	Tara L Snyder	1
01756	Lithium	SW-846 6010C	1	133430635002	12/11/2013 03:44	Tara L Snyder	1
01757	Magnesium	SW-846 6010C	1	133430635002	12/11/2013 03:44	Tara L Snyder	1
07058	Manganese	SW-846 6010C	1	133430635002	12/11/2013 03:44	Tara L Snyder	1
07060	Molybdenum	SW-846 6010C	1	133430635002	12/11/2013 03:44	Tara L Snyder	1
07061	Nickel	SW-846 6010C	1	133430635002	12/11/2013 03:44	Tara L Snyder	1
10143	Phosphorus	SW-846 6010C	1	133430635002	12/11/2013 03:44	Tara L Snyder	1
01762	Potassium	SW-846 6010C	1	133430635002	12/11/2013 03:44	Tara L Snyder	1
01767	Sodium	SW-846 6010C	1	133430635002	12/11/2013 03:44	Tara L Snyder	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: EB3-120513 Water
SSFL Phase 3 Subarea 8

LL Sample # WW 7306300
LL Group # 1439434
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/05/2013 15:30

Submitted: 12/09/2013 09:10
Reported: 01/09/2014 13:32

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

EB3D5 SDG#: PH140-03EB

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
07069	Tin	SW-846 6010C	1	133430635002	12/11/2013	03:44	Tara L Snyder	1
07070	Titanium	SW-846 6010C	1	133430635002	12/11/2013	03:44	Tara L Snyder	1
07071	Vanadium	SW-846 6010C	1	133430635002	12/11/2013	03:44	Tara L Snyder	1
07072	Zinc	SW-846 6010C	1	133430635002	12/11/2013	03:44	Tara L Snyder	1
10144	Zirconium	SW-846 6010C	1	133430635002	12/11/2013	03:44	Tara L Snyder	1
06041	Selenium	SW-846 6020A	1	133430639002B	12/11/2013	15:36	Parker D Lindstrom	1
06042	Silver	SW-846 6020A	1	133430639002A	12/11/2013	13:39	Parker D Lindstrom	1
06044	Strontium	SW-846 6020A	1	133430639002A	12/11/2013	13:39	Parker D Lindstrom	1
06045	Thallium	SW-846 6020A	1	133430639002A	12/11/2013	13:39	Parker D Lindstrom	1
00259	3b Mercury 7470A	SW-846 7470A	1	133515713003	12/18/2013	07:32	Damary Valentin	1
10635	WW SW846(IV) ICP Dig (tot rec)	SW-846 3005A	1	133430635002	12/10/2013	12:48	James L Mertz	1
10639	ICP/MS SW846 (IV) Water Digest	SW-846 3010A modified	1	133430639002	12/10/2013	11:24	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	3	133515713003	12/17/2013	15:00	Nelli S Markaryan	1
08255	16b Cyanide by EPA 9012B	SW-846 9012B	1	13346117102A	12/13/2013	09:31	K Robert Caulfeild-James	1
08256	Cyanide Water Distillation	SW-846 9012B	1	13346117102A	12/12/2013	09:05	Nancy J Shoop	1
12152	28b pH (9040B and 9040C)	SW-846 9040C	1	13343002204A	12/09/2013	19:27	Michele L Graham	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-525-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7306301
LL Group # 1439434
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/05/2013 09:30

Submitted: 12/09/2013 09:10
Reported: 01/09/2014 13:32

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

525B0 SDG#: PH140-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Herbicides	**SW-846 8151A**		**ug/kg**		**ug/kg**	**ug/kg**	
10401	2,4-D	94-75-7	37	U	37	12	1
10401	Dalapon	75-99-0	110	U	110	110	1
10401	2,4-DB	94-82-6	30	U	30	30	1
10401	Dicamba	1918-00-9	12	U	12	4.1	1
10401	Dinoseb	88-85-7	24	U	24	9.2	1
	The QC window for dinoseb is advisory due to the erratic performance of the analyte using this method.						
10401	2,4-DP (Dichlorprop)	120-36-5	17	U	17	9.2	1
10401	MCPA	94-74-6	2,500	U	2,500	770	1
10401	MCPP (Mecoprop)	93-65-2	2,500	U	2,500	760	1
10401	2,4,5-T	93-76-5	1.7	J	1.7	0.83	1
10401	2,4,5-TP	93-72-1	1.4	J	1.7	0.76	1
	Reporting limits were raised due to interference from the sample matrix.						
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.1	U	5.1	2.0	1
12952	EFH (C15-C20)	n.a.	2.5	J	5.1	2.0	1
12952	EFH (C21-C30)	n.a.	18		5.1	2.0	1
12952	EFH (C30-C40)	n.a.	20		10	4.1	1
12952	EFH (C8-C11)	n.a.	5.1	U	5.1	2.0	1
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	2.0		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10401	21a Herbicides by EPA 8151A	SW-846 8151A	1	133450034A	12/16/2013 00:24	Melissa McDermott	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	133450034A	12/12/2013 06:45	Kerrie A Freeburn	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	133500018A	12/18/2013 02:57	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	133500018A	12/17/2013 04:00	David V Hershey Jr	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-525-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7306301
LL Group # 1439434
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/05/2013 09:30

Submitted: 12/09/2013 09:10
Reported: 01/09/2014 13:32

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

525B0 SDG#: PH140-04

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13347162401A	12/13/2013 22:59	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-525-NBZ-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7306302
LL Group # 1439434
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/05/2013 10:45

Submitted: 12/09/2013 09:10
Reported: 01/09/2014 13:32

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

525B4 SDG#: PH140-05BKG

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Herbicides	**SW-846 8151A**		**ug/kg**		**ug/kg**	**ug/kg**	
10401	2,4-D	94-75-7	37	U	37	12	1
10401	Dalapon	75-99-0	200	U	200	200	1
10401	2,4-DB	94-82-6	17	U	17	6.3	1
10401	Dicamba	1918-00-9	12	U	12	4.1	1
10401	Dinoseb	88-85-7	24	U	24	9.2	1
	The QC window for dinoseb is advisory due to the erratic performance of the analyte using this method.						
10401	2,4-DP (Dichlorprop)	120-36-5	17	U	17	9.2	1
10401	MCPA	94-74-6	2,500	U	2,500	780	1
10401	MCPP (Mecoprop)	93-65-2	2,500	U	2,500	760	1
10401	2,4,5-T	93-76-5	1.7	U	1.7	0.84	1
10401	2,4,5-TP	93-72-1	1.7	U	1.7	0.76	1
	Reporting limits were raised due to interference from the sample matrix.						
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.1	U	5.1	2.1	1
12952	EFH (C15-C20)	n.a.	5.1	U	5.1	2.1	1
12952	EFH (C21-C30)	n.a.	5.1	U	5.1	2.1	1
12952	EFH (C30-C40)	n.a.	10	U	10	4.1	1
12952	EFH (C8-C11)	n.a.	5.1	U	5.1	2.1	1
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	2.6		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10401	21a Herbicides by EPA 8151A	SW-846 8151A	1	133450034A	12/16/2013 00:51	Melissa McDermott	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	133450034A	12/12/2013 06:45	Kerrie A Freeburn	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	133500018A	12/18/2013 01:10	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	133500018A	12/17/2013 04:00	David V Hershey Jr	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-525-NBZ-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7306302
LL Group # 1439434
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/05/2013 10:45

Submitted: 12/09/2013 09:10
Reported: 01/09/2014 13:32

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Suite 400
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525B4 SDG#: PH140-05BKG

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13347162401A	12/13/2013 22:59	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-525-NBZ-SB-4.0-5.0MS Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7306303
LL Group # 1439434
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/05/2013 10:45

Submitted: 12/09/2013 09:10
Reported: 01/09/2014 13:32

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

525B4 SDG#: PH140-05MS

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Herbicides	**SW-846 8151A**		**ug/kg**		**ug/kg**	**ug/kg**	
10401	2,4-D	94-75-7	120		37	12	1
10401	Dalapon	75-99-0	130		92	45	1
10401	2,4-DB	94-82-6	120		17	6.3	1
10401	Dicamba	1918-00-9	9.0	J	12	4.1	1
10401	Dinoseb	88-85-7	36		25	9.2	1
	The QC window for dinoseb is advisory due to the erratic performance of the analyte using this method.						
10401	2,4-DP (Dichlorprop)	120-36-5	130		17	9.2	1
10401	MCPA	94-74-6	8,600		2,600	780	1
10401	MCPP (Mecoprop)	93-65-2	8,100		2,600	770	1
10401	2,4,5-T	93-76-5	11		1.7	0.84	1
10401	2,4,5-TP	93-72-1	11		1.7	0.77	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.1	J	5.1	2.1	1
12952	EFH (C15-C20)	n.a.	8.0		5.1	2.1	1
12952	EFH (C21-C30)	n.a.	14		5.1	2.1	1
12952	EFH (C30-C40)	n.a.	13		10	4.1	1
12952	EFH (C8-C11)	n.a.	6.8		5.1	2.1	1
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11625	14a Moisture Content by 160.3	n.a.	2.6		0.10	0.10	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10401	21a Herbicides by EPA 8151A	SW-846 8151A	1	133450034A	12/16/2013 01:18	Melissa McDermott	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	133450034A	12/12/2013 06:45	Kerrie A Freeburn	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	133500018A	12/18/2013 01:31	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	133500018A	12/17/2013 04:00	David V Hershey Jr	1
11625	14a Moisture Content by 160.3	EPA 160.3 modified	1	13347162401A	12/13/2013 22:59	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-525-NBZ-SB-4.0-5.0MSD Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7306304
LL Group # 1439434
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/05/2013 10:45

Submitted: 12/09/2013 09:10
Reported: 01/09/2014 13:32

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

525B4 SDG#: PH140-05MSD

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Herbicides	**SW-846 8151A**		**ug/kg**		**ug/kg**	**ug/kg**	
10401	2,4-D	94-75-7	130		37	12	1
10401	Dalapon	75-99-0	120		92	45	1
10401	2,4-DB	94-82-6	130		17	6.3	1
10401	Dicamba	1918-00-9	9.8	J	12	4.1	1
10401	Dinoseb	88-85-7	41		24	9.2	1
	The QC window for dinoseb is advisory due to the erratic performance of the analyte using this method.						
10401	2,4-DP (Dichlorprop)	120-36-5	140		17	9.2	1
10401	MCPA	94-74-6	9,400		2,500	780	1
10401	MCPP (Mecoprop)	93-65-2	8,300		2,500	760	1
10401	2,4,5-T	93-76-5	15		1.7	0.84	1
10401	2,4,5-TP	93-72-1	11		1.7	0.76	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	4.9	J	5.1	2.1	1
12952	EFH (C15-C20)	n.a.	7.7		5.1	2.1	1
12952	EFH (C21-C30)	n.a.	13		5.1	2.1	1
12952	EFH (C30-C40)	n.a.	13		10	4.1	1
12952	EFH (C8-C11)	n.a.	5.5		5.1	2.1	1
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11625	14a Moisture Content by 160.3	n.a.	2.6		0.10	0.10	1
11626	14a Moisture Content by 160.3	n.a.	2.5		0.10	0.10	1
	The duplicate moisture value is provided to assess the precision of the moisture test. For comparability purposes, the initial moisture determination is the value used to perform dry weight calculations.						

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10401	21a Herbicides by EPA 8151A	SW-846 8151A	1	133450034A	12/16/2013 01:44	Melissa McDermott	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	133450034A	12/12/2013 06:45	Kerrie A Freeburn	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	133500018A	12/18/2013 01:53	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	133500018A	12/17/2013 04:00	David V Hershey Jr	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-525-NBZ-SB-4.0-5.0MSD Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7306304
LL Group # 1439434
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/05/2013 10:45

Submitted: 12/09/2013 09:10
Reported: 01/09/2014 13:32

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

525B4 SDG#: PH140-05MSD

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11625	14a Moisture Content by 160.3	EPA 160.3 modified	1	13347162401A	12/13/2013 22:59	Scott W Freisher	1
11626	14a Moisture Content by 160.3	EPA 160.3 modified	1	13347162401A	12/13/2013 22:59	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-825-NBZ-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7306305
LL Group # 1439434
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/05/2013 11:00

Submitted: 12/09/2013 09:10
Reported: 01/09/2014 13:32

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

825B4 SDG#: PH140-06

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Herbicides	**SW-846 8151A**		**ug/kg**		**ug/kg**	**ug/kg**	
10401	2,4-D	94-75-7	37	U	37	12	1
10401	Dalapon	75-99-0	92	U	92	45	1
10401	2,4-DB	94-82-6	17	U	17	10	1
10401	Dicamba	1918-00-9	12	U	12	4.1	1
10401	Dinoseb	88-85-7	25	U	25	9.2	1
	The QC window for dinoseb is advisory due to the erratic performance of the analyte using this method.						
10401	2,4-DP (Dichlorprop)	120-36-5	17	U	17	9.2	1
10401	MCPA	94-74-6	2,600	U	2,600	780	1
10401	MCPP (Mecoprop)	93-65-2	2,600	U	2,600	770	1
10401	2,4,5-T	93-76-5	1.7	U	1.7	0.84	1
10401	2,4,5-TP	93-72-1	1.7	U	1.7	0.77	1
	Reporting limits were raised due to interference from the sample matrix.						
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.1	U	5.1	2.1	1
12952	EFH (C15-C20)	n.a.	5.1	U	5.1	2.1	1
12952	EFH (C21-C30)	n.a.	5.1	U	5.1	2.1	1
12952	EFH (C30-C40)	n.a.	10	U	10	4.1	1
12952	EFH (C8-C11)	n.a.	5.1	U	5.1	2.1	1
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	2.6		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10401	21a Herbicides by EPA 8151A	SW-846 8151A	1	133450034A	12/16/2013 02:11	Melissa McDermott	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	133450034A	12/12/2013 06:45	Kerrie A Freeburn	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	133500018A	12/18/2013 02:14	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	133500018A	12/17/2013 04:00	David V Hershey Jr	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-825-NBZ-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7306305
LL Group # 1439434
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/05/2013 11:00

Submitted: 12/09/2013 09:10
Reported: 01/09/2014 13:32

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

825B4 SDG#: PH140-06

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13347162401A	12/13/2013 22:59	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-526-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7306306
LL Group # 1439434
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/05/2013 11:30

Submitted: 12/09/2013 09:10
Reported: 01/09/2014 13:32

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

526B0 SDG#: PH140-07

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Herbicides	**SW-846 8151A**		**ug/kg**		**ug/kg**	**ug/kg**	
10401	2,4-D	94-75-7	37	U	37	12	1
10401	Dalapon	75-99-0	91	U	91	45	1
10401	2,4-DB	94-82-6	24		17	6.3	1
10401	Dicamba	1918-00-9	12	U	12	4.1	1
10401	Dinoseb	88-85-7	24	U	24	9.1	1
	The QC window for dinoseb is advisory due to the erratic performance of the analyte using this method.						
10401	2,4-DP (Dichlorprop)	120-36-5	17	U	17	9.1	1
10401	MCPA	94-74-6	2,500	U	2,500	770	1
10401	MCPP (Mecoprop)	93-65-2	2,500	U	2,500	760	1
10401	2,4,5-T	93-76-5	1.7	U	1.7	0.83	1
10401	2,4,5-TP	93-72-1	1.7	U	1.7	0.76	1
	The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken: The sample was re-extracted and the QC is again outside of the acceptance limits. The data is reported from the initial trial.						
Pesticides/PCBs	**SW-846 8081B**		**ug/kg**		**ug/kg**	**ug/kg**	
10590	Aldrin	309-00-2	0.86	U	0.86	0.18	1
10590	Alpha BHC	319-84-6	0.86	U	0.86	0.18	1
10590	Beta BHC	319-85-7	2.0	U	2.0	0.99	1
10590	Gamma BHC - Lindane	58-89-9	0.86	U	0.86	0.18	1
10590	Chlordane	57-74-9	18	U	18	4.1	1
10590	p,p-DDD	72-54-8	1.8	U	1.8	0.34	1
10590	p,p-DDE	72-55-9	0.65	J	1.8	0.34	1
10590	p,p-DDT	50-29-3	0.78	J	1.8	0.36	1
10590	Delta BHC	319-86-8	0.86	U	0.86	0.46	1
10590	Dieldrin	60-57-1	1.8	U	1.8	0.34	1
10590	Endosulfan I	959-98-8	0.86	U	0.86	0.23	1
10590	Endosulfan II	33213-65-9	1.8	U	1.8	0.34	1
10590	Endosulfan Sulfate	1031-07-8	1.8	U	1.8	0.34	1
10590	Endrin	72-20-8	1.8	U	1.8	0.34	1
10590	Endrin Aldehyde	7421-93-4	1.8	U	1.8	0.34	1
10590	Endrin Ketone	53494-70-5	1.9	U	1.9	0.62	1
10590	Heptachlor	76-44-8	0.86	U	0.86	0.18	1
10590	Heptachlor Epoxide	1024-57-3	0.86	U	0.86	0.18	1
10590	Methoxychlor	72-43-5	6.9	U	6.9	1.8	1
10590	Mirex	2385-85-5	1.8	U	1.8	0.36	1
10590	Toxaphene	8001-35-2	34	U	34	14	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	26	U	26	10	5
12952	EFH (C15-C20)	n.a.	13	J	26	10	5
12952	EFH (C21-C30)	n.a.	110		26	10	5
12952	EFH (C30-C40)	n.a.	210		52	21	5
12952	EFH (C8-C11)	n.a.	26	U	26	10	5
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	

*=This limit was used in the evaluation of the final result

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Lancaster Laboratories Environmental
2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Analysis Report

Sample Description: SL-526-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7306306
LL Group # 1439434
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/05/2013 11:30

Submitted: 12/09/2013 09:10
Reported: 01/09/2014 13:32

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

526B0 SDG#: PH140-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Wet Chemistry	**EPA 160.3 modified**		%	%	%	
11624	14a Moisture Content by 160.3	n.a.	3.2	0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.					

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10401	21a Herbicides by EPA 8151A	SW-846 8151A	1	133450034A	12/16/2013 02:38	Melissa McDermott	1
10590	20a Pesticides by EPA 8081B	SW-846 8081B	1	133470015A	12/16/2013 23:25	Jamie L Brillhart	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	133470015A	12/13/2013 17:50	Sally L Appleyard	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	133450034A	12/12/2013 06:45	Kerrie A Freeburn	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	133500018A	12/19/2013 01:26	Heather E Williams	5
12959	EFH soil ext.(microwave)	SW-846 3546	1	133500018A	12/17/2013 04:00	David V Hershey Jr	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13347162401A	12/13/2013 22:59	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-526-NBZ-SB-2.5-3.5 Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7306307
LL Group # 1439434
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/05/2013 12:00

Submitted: 12/09/2013 09:10
Reported: 01/09/2014 13:32

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

B2625 SDG#: PH140-08

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Herbicides	**SW-846 8151A**		**ug/kg**		**ug/kg**	**ug/kg**	
10401	2,4-D	94-75-7	37	U	37	12	1
10401	Dalapon	75-99-0	92	U	92	45	1
10401	2,4-DB	94-82-6	22		17	6.3	1
10401	Dicamba	1918-00-9	12	U	12	4.1	1
10401	Dinoseb	88-85-7	24	U	24	9.2	1
	The QC window for dinoseb is advisory due to the erratic performance of the analyte using this method.						
10401	2,4-DP (Dichlorprop)	120-36-5	17	U	17	9.2	1
10401	MCPA	94-74-6	2,600	U	2,600	780	1
10401	MCPP (Mecoprop)	93-65-2	2,600	U	2,600	770	1
10401	2,4,5-T	93-76-5	1.7	U	1.7	0.84	1
10401	2,4,5-TP	93-72-1	1.7	U	1.7	0.77	1
	The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken: The sample was re-extracted and the QC is again outside of the acceptance limits. The data is reported from the initial trial.						
Pesticides/PCBs	**SW-846 8081B**		**ug/kg**		**ug/kg**	**ug/kg**	
10590	Aldrin	309-00-2	0.86	U	0.86	0.18	1
10590	Alpha BHC	319-84-6	0.86	U	0.86	0.18	1
10590	Beta BHC	319-85-7	2.0	U	2.0	0.99	1
10590	Gamma BHC - Lindane	58-89-9	0.86	U	0.86	0.18	1
10590	Chlordane	57-74-9	18	U	18	4.1	1
10590	p,p-DDD	72-54-8	1.8	U	1.8	0.34	1
10590	p,p-DDE	72-55-9	1.8	U	1.8	0.34	1
10590	p,p-DDT	50-29-3	1.8	U	1.8	0.36	1
10590	Delta BHC	319-86-8	0.86	U	0.86	0.47	1
10590	Dieldrin	60-57-1	1.8	U	1.8	0.34	1
10590	Endosulfan I	959-98-8	0.86	U	0.86	0.23	1
10590	Endosulfan II	33213-65-9	1.8	U	1.8	0.34	1
10590	Endosulfan Sulfate	1031-07-8	1.8	U	1.8	0.34	1
10590	Endrin	72-20-8	1.8	U	1.8	0.34	1
10590	Endrin Aldehyde	7421-93-4	1.8	U	1.8	0.34	1
10590	Endrin Ketone	53494-70-5	1.9	U	1.9	0.62	1
10590	Heptachlor	76-44-8	0.86	U	0.86	0.18	1
10590	Heptachlor Epoxide	1024-57-3	0.86	U	0.86	0.18	1
10590	Methoxychlor	72-43-5	6.9	U	6.9	1.8	1
10590	Mirex	2385-85-5	1.8	U	1.8	0.36	1
10590	Toxaphene	8001-35-2	34	U	34	14	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.2	U	5.2	2.1	1
12952	EFH (C15-C20)	n.a.	5.2	U	5.2	2.1	1
12952	EFH (C21-C30)	n.a.	8.4		5.2	2.1	1
12952	EFH (C30-C40)	n.a.	14		10	4.1	1
12952	EFH (C8-C11)	n.a.	5.2	U	5.2	2.1	1
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-526-NBZ-SB-2.5-3.5 Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7306307
LL Group # 1439434
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/05/2013 12:00

Submitted: 12/09/2013 09:10
Reported: 01/09/2014 13:32

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

B2625 SDG#: PH140-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Wet Chemistry	**EPA 160.3 modified**		%	%	%	
11624	14a Moisture Content by 160.3	n.a.	3.3	0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.					

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10401	21a Herbicides by EPA 8151A	SW-846 8151A	1	133450034A	12/16/2013 03:05	Melissa McDermott	1
10590	20a Pesticides by EPA 8081B	SW-846 8081B	1	133470015A	12/16/2013 23:40	Jamie L Brillhart	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	133470015A	12/13/2013 17:50	Sally L Appleyard	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	133450034A	12/12/2013 06:45	Kerrie A Freeburn	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	133500018A	12/18/2013 02:36	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	133500018A	12/17/2013 04:00	David V Hershey Jr	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13347162401A	12/13/2013 22:59	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-527-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7306308
LL Group # 1439434
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/05/2013 10:45

Submitted: 12/09/2013 09:10
Reported: 01/09/2014 13:32

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

52700 SDG#: PH140-09

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	9.3	U	9.3	3.7	5
12969	Acenaphthylene	208-96-8	9.3	U	9.3	1.9	5
12969	Anthracene	120-12-7	9.3	U	9.3	1.9	5
12969	Benzo(a)anthracene	56-55-3	9.3	U	9.3	3.7	5
12969	Benzo(a)pyrene	50-32-8	9.3	U	9.3	3.7	5
12969	Benzo(b)fluoranthene	205-99-2	4.2	J	9.3	3.7	5
12969	Benzo(e)pyrene	192-97-2	95	U	95	19	5
12969	Benzo(g,h,i)perylene	191-24-2	9.3	U	9.3	3.7	5
12969	Benzo(k)fluoranthene	207-08-9	9.3	U	9.3	3.7	5
12969	Butylbenzylphthalate	85-68-7	100	U	100	33	5
12969	Di-n-butylphthalate	84-74-2	100	U	100	33	5
12969	Chrysene	218-01-9	5.6	J	9.3	1.9	5
12969	Dibenz(a,h)anthracene	53-70-3	9.3	U	9.3	3.7	5
12969	Diethylphthalate	84-66-2	100	U	100	33	5
12969	Dimethylphthalate	131-11-3	100	U	100	33	5
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	64	J	100	33	5
12969	Fluoranthene	206-44-0	6.9	J	9.3	3.7	5
12969	Fluorene	86-73-7	9.3	U	9.3	3.7	5
12969	Indeno(1,2,3-cd)pyrene	193-39-5	9.3	U	9.3	3.7	5
12969	1-Methylnaphthalene	90-12-0	9.3	U	9.3	3.7	5
12969	2-Methylnaphthalene	91-57-6	4.7	J	9.3	3.7	5
12969	Naphthalene	91-20-3	13		9.3	3.7	5
12969	N-Nitrosodimethylamine	62-75-9	9.3	U	9.3	3.7	5
12969	Di-n-octylphthalate	117-84-0	100	U	100	33	5
12969	Phenanthrene	85-01-8	9.6		9.3	3.7	5
12969	Pyrene	129-00-0	6.0	J	9.3	3.7	5
Pesticides/PCBs	**SW-846 8081B**		**ug/kg**		**ug/kg**	**ug/kg**	
10590	Aldrin	309-00-2	0.93	U	0.93	0.19	1
10590	Alpha BHC	319-84-6	0.93	U	0.93	0.19	1
10590	Beta BHC	319-85-7	2.1	U	2.1	1.1	1
10590	Gamma BHC - Lindane	58-89-9	0.93	U	0.93	0.19	1
10590	Chlordane	57-74-9	19	U	19	4.5	1
10590	p,p-DDD	72-54-8	2.0	U	2.0	2.0	1
10590	p,p-DDE	72-55-9	1.1	J	1.9	0.37	1
10590	p,p-DDT	50-29-3	1.0	J	1.9	0.39	1
10590	Delta BHC	319-86-8	0.93	U	0.93	0.51	1
10590	Dieldrin	60-57-1	1.9	U	1.9	0.37	1
10590	Endosulfan I	959-98-8	0.92	J	0.93	0.25	1
10590	Endosulfan II	33213-65-9	1.9	U	1.9	0.37	1
10590	Endosulfan Sulfate	1031-07-8	1.9	U	1.9	0.56	1
10590	Endrin	72-20-8	1.9	U	1.9	1.1	1
10590	Endrin Aldehyde	7421-93-4	0.98	J	1.9	0.37	1
10590	Endrin Ketone	53494-70-5	2.0	U	2.0	0.67	1
10590	Heptachlor	76-44-8	0.93	U	0.93	0.19	1
10590	Heptachlor Epoxide	1024-57-3	0.93	U	0.93	0.19	1
10590	Methoxychlor	72-43-5	7.5	U	7.5	1.9	1
10590	Mirex	2385-85-5	1.9	U	1.9	0.39	1
10590	Toxaphene	8001-35-2	39	U	39	39	1

Reporting limits were raised due to interference from the sample matrix.

*=This limit was used in the evaluation of the final result

Sample Description: SL-527-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7306308
LL Group # 1439434
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/05/2013 10:45

Submitted: 12/09/2013 09:10
Reported: 01/09/2014 13:32

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

52700 SDG#: PH140-09

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	37	U	37	11	1
13099	Aroclor 5442	12642-23-8	37	U	37	11	1
13099	Aroclor 5460	11126-42-4	37	U	37	11	1
13099	PCB-1016	12674-11-2	19	U	19	3.7	1
13099	PCB-1221	11104-28-2	19	U	19	5.7	1
13099	PCB-1232	11141-16-5	19	U	19	4.6	1
13099	PCB-1242	53469-21-9	19	U	19	4.6	1
13099	PCB-1248	12672-29-6	19	U	19	3.7	1
13099	PCB-1254	11097-69-1	19	U	19	4.9	1
13099	PCB-1260	11096-82-5	19	U	19	4.3	1
13099	PCB-1262	37324-23-5	19	U	19	3.7	1
13099	PCB-1268	11100-14-4	19	U	19	3.7	1
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	11.1		0.10	0.10	1

Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

*=This limit was used in the evaluation of the final result

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Lancaster Laboratories Environmental
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Analysis Report

Sample Description: SL-527-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7306308
LL Group # 1439434
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/05/2013 10:45

Submitted: 12/09/2013 09:10
Reported: 01/09/2014 13:32

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

52700 SDG#: PH140-09

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.115	JBQ	1.12	0.0840	1
11031	12378-PeCDD	40321-76-4	0.709	JBQ	5.61	0.0976	1
11031	123478-HxCDD	39227-28-6	0.531	JB	5.61	0.0726	1
11031	123678-HxCDD	57653-85-7	1.27	JB	5.61	0.0763	1
11031	123789-HxCDD	19408-74-3	1.05	JB	5.61	0.0736	1
11031	1234678-HpCDD	35822-46-9	20.1	B	5.61	0.0565	1
11031	OCDD	3268-87-9	157	B	11.2	0.0517	1
11031	2378-TCDF	51207-31-9	0.347	JB	1.12	0.0900	1
11031	12378-PeCDF	57117-41-6	0.352	JB	5.61	0.0456	1
11031	23478-PeCDF	57117-31-4	0.468	JB	5.61	0.0435	1
11031	123478-HxCDF	70648-26-9	0.353	JB	5.61	0.0594	1
11031	123678-HxCDF	57117-44-9	0.414	JB	5.61	0.0542	1
11031	123789-HxCDF	72918-21-9	0.138	JB	5.61	0.0636	1
11031	234678-HxCDF	60851-34-5	0.321	JB	5.61	0.0571	1
11031	1234678-HpCDF	67562-39-4	3.33	JB	5.61	0.0415	1
11031	1234789-HpCDF	55673-89-7	0.299	JB	5.61	0.0520	1
11031	OCDF	39001-02-0	5.93	JB	11.2	0.0661	1
D/F Toxic Equivalents	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.880				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	76	25 - 164
13C12-12378-PeCDD	70	25 - 181
13C12-123478-HxCDD	85	32 - 141
13C12-123678-HxCDD	84	28 - 130
13C12-123789-HxCDD	84	28 - 130
13C12-1234678-HpCDD	70	23 - 140
13C12-OCDD	60	17 - 157
13C12-2378-TCDF	71	24 - 169
13C12-12378-PeCDF	69	24 - 185
13C12-23478-PeCDF	68	21 - 178
13C12-123478-HxCDF	78	26 - 152
13C12-123678-HxCDF	83	26 - 123
13C12-234678-HxCDF	81	28 - 136
13C12-123789-HxCDF	81	29 - 147
13C12-1234678-HpCDF	72	28 - 143
13C12-1234789-HpCDF	65	26 - 138
13C12-OCDF	57	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column

*=This limit was used in the evaluation of the final result

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Environmental

Analysis Report

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Sample Description: SL-527-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7306308
LL Group # 1439434
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/05/2013 10:45

Submitted: 12/09/2013 09:10
Reported: 01/09/2014 13:32

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

52700 SDG#: PH140-09

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

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Lancaster Laboratories Environmental
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Analysis Report

Sample Description: SL-527-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7306308
LL Group # 1439434
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/05/2013 10:45

Submitted: 12/09/2013 09:10
Reported: 01/09/2014 13:32

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

52700 SDG#: PH140-09

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13348SLG026	12/29/2013 11:43	Mark A Clark	5
10811	BNA Soil Microwave SIM	SW-846 3546	1	13348SLG026	12/16/2013 09:50	Katheryne V Sponheimer	1
10590	20a Pesticides by EPA 8081B	SW-846 8081B	1	133470015A	12/16/2013 23:55	Jamie L Brillhart	1
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	133480008A	12/16/2013 10:40	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	133480008A	12/15/2013 20:30	Karen L Beyer	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	133470015A	12/13/2013 17:50	Sally L Appleyard	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13347003	12/17/2013 11:30	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13347003	12/13/2013 11:30	Chin F Ly	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13347162401A	12/13/2013 22:59	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-528-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7306309
LL Group # 1439434
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/05/2013 12:05

Submitted: 12/09/2013 09:10
Reported: 01/09/2014 13:32

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

52800 SDG#: PH140-10

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.70	1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.35	1
12969	Anthracene	120-12-7	1.7	U	1.7	0.35	1
12969	Benzo(a)anthracene	56-55-3	1.7	U	1.7	0.70	1
12969	Benzo(a)pyrene	50-32-8	1.7	U	1.7	0.70	1
12969	Benzo(b)fluoranthene	205-99-2	0.82	J	1.7	0.70	1
12969	Benzo(e)pyrene	192-97-2	18	U	18	3.5	1
12969	Benzo(g,h,i)perylene	191-24-2	1.7	U	1.7	0.70	1
12969	Benzo(k)fluoranthene	207-08-9	1.7	U	1.7	0.70	1
12969	Butylbenzylphthalate	85-68-7	19	U	19	6.3	1
12969	Di-n-butylphthalate	84-74-2	19	U	19	6.3	1
12969	Chrysene	218-01-9	1.6	J	1.7	0.35	1
12969	Dibenz(a,h)anthracene	53-70-3	1.7	U	1.7	0.70	1
12969	Diethylphthalate	84-66-2	19	U	19	6.3	1
12969	Dimethylphthalate	131-11-3	19	U	19	6.3	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	21		19	6.3	1
12969	Fluoranthene	206-44-0	1.2	J	1.7	0.70	1
12969	Fluorene	86-73-7	1.7	U	1.7	0.70	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.7	U	1.7	0.70	1
12969	1-Methylnaphthalene	90-12-0	1.7	U	1.7	0.70	1
12969	2-Methylnaphthalene	91-57-6	1.7	U	1.7	0.70	1
12969	Naphthalene	91-20-3	0.71	J	1.7	0.70	1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.70	1
12969	Di-n-octylphthalate	117-84-0	19	U	19	6.3	1
12969	Phenanthrene	85-01-8	0.86	J	1.7	0.70	1
12969	Pyrene	129-00-0	0.92	J	1.7	0.70	1
Pesticides/PCBs	**SW-846 8081B**		**ug/kg**		**ug/kg**	**ug/kg**	
10590	Aldrin	309-00-2	0.88	U	0.88	0.18	1
10590	Alpha BHC	319-84-6	0.88	U	0.88	0.18	1
10590	Beta BHC	319-85-7	2.0	U	2.0	1.0	1
10590	Gamma BHC - Lindane	58-89-9	0.32	J	0.88	0.18	1
10590	Chlordane	57-74-9	18	U	18	4.2	1
10590	p,p-DDD	72-54-8	1.8	U	1.8	0.52	1
10590	p,p-DDE	72-55-9	2.1		1.8	0.35	1
10590	p,p-DDT	50-29-3	1.3	J	1.8	0.37	1
10590	Delta BHC	319-86-8	0.88	U	0.88	0.47	1
10590	Dieldrin	60-57-1	0.52	J	1.8	0.35	1
10590	Endosulfan I	959-98-8	0.88	U	0.88	0.23	1
10590	Endosulfan II	33213-65-9	1.8	U	1.8	0.35	1
10590	Endosulfan Sulfate	1031-07-8	1.8	U	1.8	0.35	1
10590	Endrin	72-20-8	0.41	J	1.8	0.35	1
10590	Endrin Aldehyde	7421-93-4	0.71	J	1.8	0.35	1
10590	Endrin Ketone	53494-70-5	1.9	U	1.9	0.63	1
10590	Heptachlor	76-44-8	0.88	U	0.88	0.18	1
10590	Heptachlor Epoxide	1024-57-3	0.88	U	0.88	0.18	1
10590	Methoxychlor	72-43-5	7.1	U	7.1	1.8	1
10590	Mirex	2385-85-5	1.8	U	1.8	0.37	1
10590	Toxaphene	8001-35-2	38	U	38	38	1

Reporting limits were raised due to interference from the sample matrix.

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-528-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7306309
LL Group # 1439434
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/05/2013 12:05

Submitted: 12/09/2013 09:10
Reported: 01/09/2014 13:32

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

52800 SDG#: PH140-10

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	35	U	35	10	1
13099	Aroclor 5442	12642-23-8	35	U	35	10	1
13099	Aroclor 5460	11126-42-4	35	U	35	10	1
13099	PCB-1016	12674-11-2	18	U	18	3.5	1
13099	PCB-1221	11104-28-2	18	U	18	5.3	1
13099	PCB-1232	11141-16-5	18	U	18	4.3	1
13099	PCB-1242	53469-21-9	18	U	18	4.3	1
13099	PCB-1248	12672-29-6	18	U	18	3.5	1
13099	PCB-1254	11097-69-1	18	U	18	4.6	1
13099	PCB-1260	11096-82-5	18	U	18	4.1	1
13099	PCB-1262	37324-23-5	18	U	18	3.5	1
13099	PCB-1268	11100-14-4	18	U	18	3.5	1
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	5.2		0.10	0.10	1

Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-528-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7306309
LL Group # 1439434
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/05/2013 12:05

Submitted: 12/09/2013 09:10
Reported: 01/09/2014 13:32

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

52800 SDG#: PH140-10

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0850 JBQ	1.01	0.0572	1
11031	12378-PeCDD	40321-76-4	0.123 JBQ	5.04	0.0422	1
11031	123478-HxCDD	39227-28-6	0.0766 JBQ	5.04	0.0437	1
11031	123678-HxCDD	57653-85-7	0.128 JB	5.04	0.0454	1
11031	123789-HxCDD	19408-74-3	0.135 JB	5.04	0.0442	1
11031	1234678-HpCDD	35822-46-9	2.55 JB	5.04	0.0450	1
11031	OCDD	3268-87-9	22.5 B	10.1	0.0368	1
11031	2378-TCDF	51207-31-9	0.114 JBQ	1.01	0.0615	1
11031	12378-PeCDF	57117-41-6	0.0794 JBQ	5.04	0.0297	1
11031	23478-PeCDF	57117-31-4	0.0939 JBQ	5.04	0.0276	1
11031	123478-HxCDF	70648-26-9	0.0904 JB	5.04	0.0377	1
11031	123678-HxCDF	57117-44-9	0.0527 JBQ	5.04	0.0351	1
11031	123789-HxCDF	72918-21-9	5.04 U	5.04	0.0389	1
11031	234678-HxCDF	60851-34-5	0.0951 JBQ	5.04	0.0365	1
11031	1234678-HpCDF	67562-39-4	0.479 JBQ	5.04	0.0275	1
11031	1234789-HpCDF	55673-89-7	0.0499 JBQ	5.04	0.0360	1
11031	OCDF	39001-02-0	1.11 JB	10.1	0.0633	1
D/F Toxic Equivalents	**EPA 1613B**		ng/kg	ng/kg	ng/kg	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.0679			1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	68	25 - 164
13C12-12378-PeCDD	69	25 - 181
13C12-123478-HxCDD	83	32 - 141
13C12-123678-HxCDD	82	28 - 130
13C12-123789-HxCDD	80	28 - 130
13C12-1234678-HpCDD	69	23 - 140
13C12-OCDD	61	17 - 157
13C12-2378-TCDF	63	24 - 169
13C12-12378-PeCDF	65	24 - 185
13C12-23478-PeCDF	64	21 - 178
13C12-123478-HxCDF	73	26 - 152
13C12-123678-HxCDF	78	26 - 123
13C12-234678-HxCDF	77	28 - 136
13C12-123789-HxCDF	77	29 - 147
13C12-1234678-HpCDF	74	28 - 143
13C12-1234789-HpCDF	60	26 - 138
13C12-OCDF	53	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column

*=This limit was used in the evaluation of the final result

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Analysis Report

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Sample Description: SL-528-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7306309
LL Group # 1439434
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/05/2013 12:05

Submitted: 12/09/2013 09:10
Reported: 01/09/2014 13:32

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

52800 SDG#: PH140-10

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-528-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7306309
LL Group # 1439434
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/05/2013 12:05

Submitted: 12/09/2013 09:10
Reported: 01/09/2014 13:32

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

52800 SDG#: PH140-10

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13348SLG026	12/29/2013 08:25	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	13348SLG026	12/16/2013 09:50	Katheryne V Sponheimer	1
10590	20a Pesticides by EPA 8081B	SW-846 8081B	1	133470015A	12/17/2013 00:11	Jamie L Brillhart	1
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	133480008A	12/16/2013 11:35	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	133480008A	12/15/2013 20:30	Karen L Beyer	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	133470015A	12/13/2013 17:50	Sally L Appleyard	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13347003	12/17/2013 12:27	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13347003	12/13/2013 11:30	Chin F Ly	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13347162401A	12/13/2013 22:59	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-529-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7306310
LL Group # 1439434
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/05/2013 10:45

Submitted: 12/09/2013 09:10
Reported: 01/09/2014 13:32

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

52900 SDG#: PH140-11*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.8	U	1.8	0.71	1
12969	Acenaphthylene	208-96-8	1.8	U	1.8	0.35	1
12969	Anthracene	120-12-7	1.8	U	1.8	0.35	1
12969	Benzo(a)anthracene	56-55-3	1.8	U	1.8	0.71	1
12969	Benzo(a)pyrene	50-32-8	1.8	U	1.8	0.71	1
12969	Benzo(b)fluoranthene	205-99-2	1.6	J	1.8	0.71	1
12969	Benzo(e)pyrene	192-97-2	18	U	18	3.5	1
12969	Benzo(g,h,i)perylene	191-24-2	1.8	U	1.8	0.71	1
12969	Benzo(k)fluoranthene	207-08-9	1.8	U	1.8	0.71	1
12969	Butylbenzylphthalate	85-68-7	19	U	19	6.4	1
12969	Di-n-butylphthalate	84-74-2	19	U	19	6.4	1
12969	Chrysene	218-01-9	1.9		1.8	0.35	1
12969	Dibenz(a,h)anthracene	53-70-3	1.8	U	1.8	0.71	1
12969	Diethylphthalate	84-66-2	19	U	19	6.4	1
12969	Dimethylphthalate	131-11-3	19	U	19	6.4	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	19	U	19	6.4	1
12969	Fluoranthene	206-44-0	1.7	J	1.8	0.71	1
12969	Fluorene	86-73-7	1.8	U	1.8	0.71	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.8	U	1.8	0.71	1
12969	1-Methylnaphthalene	90-12-0	1.2	J	1.8	0.71	1
12969	2-Methylnaphthalene	91-57-6	1.8	J	1.8	0.71	1
12969	Naphthalene	91-20-3	5.4		1.8	0.71	1
12969	N-Nitrosodimethylamine	62-75-9	1.8	U	1.8	0.71	1
12969	Di-n-octylphthalate	117-84-0	19	U	19	6.4	1
12969	Phenanthrene	85-01-8	2.4		1.8	0.71	1
12969	Pyrene	129-00-0	1.4	J	1.8	0.71	1
Pesticides/PCBs	**SW-846 8081B**		**ug/kg**		**ug/kg**	**ug/kg**	
10590	Aldrin	309-00-2	0.89	U	0.89	0.18	1
10590	Alpha BHC	319-84-6	0.89	U	0.89	0.18	1
10590	Beta BHC	319-85-7	2.0	U	2.0	1.0	1
10590	Gamma BHC - Lindane	58-89-9	0.89	U	0.89	0.18	1
10590	Chlordane	57-74-9	18	U	18	4.3	1
10590	p,p-DDD	72-54-8	1.8	U	1.8	0.36	1
10590	p,p-DDE	72-55-9	1.6	J	1.8	0.36	1
10590	p,p-DDT	50-29-3	0.91	J	1.8	0.38	1
10590	Delta BHC	319-86-8	0.89	U	0.89	0.48	1
10590	Dieldrin	60-57-1	1.8	U	1.8	0.36	1
10590	Endosulfan I	959-98-8	0.89	U	0.89	0.24	1
10590	Endosulfan II	33213-65-9	1.8	U	1.8	0.36	1
10590	Endosulfan Sulfate	1031-07-8	1.8	U	1.8	0.36	1
10590	Endrin	72-20-8	1.8	U	1.8	0.36	1
10590	Endrin Aldehyde	7421-93-4	0.36	J	1.8	0.36	1
10590	Endrin Ketone	53494-70-5	1.9	U	1.9	0.65	1
10590	Heptachlor	76-44-8	0.89	U	0.89	0.18	1
10590	Heptachlor Epoxide	1024-57-3	0.89	U	0.89	0.18	1
10590	Methoxychlor	72-43-5	7.2	U	7.2	1.8	1
10590	Mirex	2385-85-5	1.8	U	1.8	0.38	1
10590	Toxaphene	8001-35-2	36	U	36	15	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-529-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7306310
LL Group # 1439434
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/05/2013 10:45

Submitted: 12/09/2013 09:10
Reported: 01/09/2014 13:32

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

52900 SDG#: PH140-11*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	35	U	35	11	1
13099	Aroclor 5442	12642-23-8	35	U	35	11	1
13099	Aroclor 5460	11126-42-4	35	U	35	11	1
13099	PCB-1016	12674-11-2	18	U	18	3.5	1
13099	PCB-1221	11104-28-2	18	U	18	5.4	1
13099	PCB-1232	11141-16-5	18	U	18	4.4	1
13099	PCB-1242	53469-21-9	18	U	18	4.4	1
13099	PCB-1248	12672-29-6	18	U	18	3.5	1
13099	PCB-1254	11097-69-1	18	U	18	4.7	1
13099	PCB-1260	11096-82-5	18	U	18	4.2	1
13099	PCB-1262	37324-23-5	18	U	18	3.5	1
13099	PCB-1268	11100-14-4	18	U	18	3.5	1
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	7.2		0.10	0.10	1

Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

*=This limit was used in the evaluation of the final result

eurofins
Lancaster Laboratories Environmental
2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Analysis Report

Sample Description: SL-529-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7306310
LL Group # 1439434
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/05/2013 10:45

Submitted: 12/09/2013 09:10
Reported: 01/09/2014 13:32

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

52900 SDG#: PH140-11*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0736 JBQ	1.05	0.0530	1
11031	12378-PeCDD	40321-76-4	0.214 JBQ	5.27	0.0514	1
11031	123478-HxCDD	39227-28-6	0.263 JBQ	5.27	0.0619	1
11031	123678-HxCDD	57653-85-7	0.453 JB	5.27	0.0638	1
11031	123789-HxCDD	19408-74-3	0.405 JB	5.27	0.0597	1
11031	1234678-HpCDD	35822-46-9	8.87 B	5.27	0.0523	1
11031	OCDD	3268-87-9	51.8 B	10.5	0.0412	1
11031	2378-TCDF	51207-31-9	0.115 JB	1.05	0.0675	1
11031	12378-PeCDF	57117-41-6	0.206 JBQ	5.27	0.0329	1
11031	23478-PeCDF	57117-31-4	0.235 JB	5.27	0.0305	1
11031	123478-HxCDF	70648-26-9	0.130 JBQ	5.27	0.0458	1
11031	123678-HxCDF	57117-44-9	0.158 JB	5.27	0.0412	1
11031	123789-HxCDF	72918-21-9	0.0681 JB	5.27	0.0453	1
11031	234678-HxCDF	60851-34-5	0.207 JBQ	5.27	0.0434	1
11031	1234678-HpCDF	67562-39-4	1.04 JB	5.27	0.0319	1
11031	1234789-HpCDF	55673-89-7	0.109 JBQ	5.27	0.0435	1
11031	OCDF	39001-02-0	2.09 JB	10.5	0.0559	1
D/F Toxic Equivalents	**EPA 1613B**		ng/kg	ng/kg	ng/kg	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.306			1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	73	25 - 164
13C12-12378-PeCDD	67	25 - 181
13C12-123478-HxCDD	83	32 - 141
13C12-123678-HxCDD	83	28 - 130
13C12-123789-HxCDD	85	28 - 130
13C12-1234678-HpCDD	67	23 - 140
13C12-OCDD	56	17 - 157
13C12-2378-TCDF	67	24 - 169
13C12-12378-PeCDF	65	24 - 185
13C12-23478-PeCDF	64	21 - 178
13C12-123478-HxCDF	75	26 - 152
13C12-123678-HxCDF	80	26 - 123
13C12-234678-HxCDF	78	28 - 136
13C12-123789-HxCDF	80	29 - 147
13C12-1234678-HpCDF	75	28 - 143
13C12-1234789-HpCDF	60	26 - 138
13C12-OCDF	50	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column

*=This limit was used in the evaluation of the final result

eurofins
Lancaster Laboratories
Environmental

Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: SL-529-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7306310
LL Group # 1439434
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/05/2013 10:45

Submitted: 12/09/2013 09:10
Reported: 01/09/2014 13:32

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

52900 SDG#: PH140-11*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

Q EMPC - Estimated Maximum Possible Concentration
F Interference is present
S Saturation of detection signal

*=This limit was used in the evaluation of the final result

eurofins
Lancaster Laboratories Environmental
2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Analysis Report

Sample Description: SL-529-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7306310
LL Group # 1439434
Account # 13013

Project Name: SSFL Phase 3 Sampling

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CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

52900 SDG#: PH140-11*

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13348SLG026	12/29/2013 08:57	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	13348SLG026	12/16/2013 09:50	Katheryne V Sponheimer	1
10590	20a Pesticides by EPA 8081B	SW-846 8081B	1	133470015A	12/17/2013 00:26	Jamie L Brillhart	1
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	133480008A	12/16/2013 11:54	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	133480008A	12/15/2013 20:30	Karen L Beyer	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	133470015A	12/13/2013 17:50	Sally L Appleyard	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13347003	12/17/2013 13:24	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13347003	12/13/2013 11:30	Chin F Ly	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13347162401A	12/13/2013 22:59	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1439434
Reported: 01/09/14 at 01:32 PM

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 13344WAL026	Sample number(s): 7306298-7306300									
Acenaphthene	0.050	U	0.050	0.010	ug/l	105	106	77-118	1	30
Acenaphthylene	0.050	U	0.050	0.010	ug/l	112	109	80-123	3	30
Anthracene	0.050	U	0.050	0.010	ug/l	109	104	78-123	4	30
Benzo(a)anthracene	0.050	U	0.050	0.010	ug/l	104	105	73-127	0	30
Benzo(a)pyrene	0.050	U	0.050	0.010	ug/l	105	100	72-120	5	30
Benzo(b)fluoranthene	0.050	U	0.050	0.010	ug/l	110	110	79-136	0	30
Benzo(e)pyrene	0.050	U	0.050	0.010	ug/l	95	97	70-130	1	30
Benzo(g,h,i)perylene	0.050	U	0.050	0.010	ug/l	104	104	64-130	0	30
Benzo(k)fluoranthene	0.050	U	0.050	0.010	ug/l	108	110	73-131	2	30
Butylbenzylphthalate	1.0	U	1.0	0.050	ug/l	102	109	40-138	7	30
Di-n-butylphthalate	0.057	J	1.0	0.050	ug/l	117	136	64-141	15	30
Chrysene	0.050	U	0.050	0.010	ug/l	106	105	76-125	0	30
Dibenz(a,h)anthracene	0.050	U	0.050	0.010	ug/l	107	105	58-131	2	30
Diethylphthalate	1.0	U	1.0	0.050	ug/l	113	120	64-128	6	30
Dimethylphthalate	1.0	U	1.0	0.050	ug/l	111	113	23-139	2	30
Bis(2-Ethylhexyl)phthalate	0.059	J	1.0	0.050	ug/l	105	365*	70-143	110*	30
Fluoranthene	0.050	U	0.050	0.010	ug/l	110	109	79-124	1	30
Fluorene	0.050	U	0.050	0.010	ug/l	109	109	74-115	1	30
Indeno(1,2,3-cd)pyrene	0.050	U	0.050	0.010	ug/l	105	104	62-130	1	30
1-Methylnaphthalene	0.050	U	0.050	0.010	ug/l	112	116	80-126	3	30
2-Methylnaphthalene	0.050	U	0.050	0.010	ug/l	120	139*	81-124	14	30
Naphthalene	0.050	U	0.050	0.030	ug/l	108	131*	75-120	19	30
N-Nitrosodimethylamine	0.050	U	0.050	0.010	ug/l	86	86	36-120	0	30
Di-n-octylphthalate	1.0	U	1.0	0.050	ug/l	99	119	57-145	18	30
Phenanthrene	0.050	U	0.050	0.030	ug/l	108	107	75-120	1	30
Pyrene	0.050	U	0.050	0.010	ug/l	107	107	71-130	0	30
Batch number: 13348SLG026	Sample number(s): 7306308-7306310									
Acenaphthene	1.7	U	1.7	0.67	ug/kg	95		77-116		
Acenaphthylene	1.7	U	1.7	0.33	ug/kg	97		78-120		
Anthracene	1.7	U	1.7	0.33	ug/kg	100		80-116		
Benzo(a)anthracene	1.7	U	1.7	0.67	ug/kg	111		83-119		
Benzo(a)pyrene	1.7	U	1.7	0.67	ug/kg	108		80-122		
Benzo(b)fluoranthene	1.7	U	1.7	0.67	ug/kg	126		82-135		
Benzo(e)pyrene	17	U	17.	3.3	ug/kg	101		81-110		
Benzo(g,h,i)perylene	1.7	U	1.7	0.67	ug/kg	109		79-121		
Benzo(k)fluoranthene	1.7	U	1.7	0.67	ug/kg	104		79-123		
Butylbenzylphthalate	18	U	18.	6.0	ug/kg	101		77-123		
Di-n-butylphthalate	18	U	18.	6.0	ug/kg	97		78-125		
Chrysene	1.7	U	1.7	0.33	ug/kg	110		84-113		
Dibenz(a,h)anthracene	1.7	U	1.7	0.67	ug/kg	103		78-124		
Diethylphthalate	18	U	18.	6.0	ug/kg	100		77-130		
Dimethylphthalate	18	U	18.	6.0	ug/kg	103		85-122		

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1439434
Reported: 01/09/14 at 01:32 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Bis(2-Ethylhexyl)phthalate	18	U	18.	6.0	ug/kg	101		79-121		
Fluoranthene	1.7	U	1.7	0.67	ug/kg	103		85-116		
Fluorene	1.7	U	1.7	0.67	ug/kg	100		81-126		
Indeno(1,2,3-cd)pyrene	1.7	U	1.7	0.67	ug/kg	108		77-124		
1-Methylnaphthalene	1.7	U	1.7	0.67	ug/kg	109		78-119		
2-Methylnaphthalene	1.7	U	1.7	0.67	ug/kg	109		78-121		
Naphthalene	1.7	U	1.7	0.67	ug/kg	97		79-113		
N-Nitrosodimethylamine	1.7	U	1.7	0.67	ug/kg	93		71-124		
Di-n-octylphthalate	18	U	18.	6.0	ug/kg	109		76-131		
Phenanthrene	1.7	U	1.7	0.67	ug/kg	99		72-110		
Pyrene	1.7	U	1.7	0.67	ug/kg	112		79-112		
Batch number: 133450017A	Sample number(s): 7306299-7306300									
2,4-D	0.50	U	0.50	0.16	ug/l	221*	223*	68-155	1	30
Dalapon	1.3	U	1.3	0.25	ug/l	124*	119	25-119	4	30
2,4-DB	1.0	U	1.0	0.30	ug/l	205*	208*	50-163	1	30
Dicamba	0.30	U	0.30	0.080	ug/l	150	152	64-163	2	30
Dinoseb	0.68		0.50	0.12	ug/l	235*	288*	16-163	20	30
2,4-DP (Dichlorprop)	0.50	U	0.50	0.16	ug/l	215*	217*	89-162	1	30
MCPA	200 U		200.	50	ug/l	139	142	68-154	3	30
MCPP	200 U		200.	50	ug/l	152	155	46-173	2	30
2,4,5-T	0.050	U	0.050	0.015	ug/l	192*	191*	71-174	1	30
2,4,5-TP	0.050	U	0.050	0.010	ug/l	189*	200*	58-155	6	30
Batch number: 133450034A	Sample number(s): 7306301-7306307									
2,4-D	36	U	36.	12	ug/kg	136*		59-122		
Dalapon	90	U	90.	44	ug/kg	71		25-100		
2,4-DB	17	U	17.	6.2	ug/kg	135*		54-131		
Dicamba	12	U	12.	4.0	ug/kg	102		55-138		
Dinoseb	24	U	24.	9.0	ug/kg	13		10-56		
2,4-DP (Dichlorprop)	17	U	17.	9.0	ug/kg	153		65-158		
MCPA	2,500 U		2,500.	760	ug/kg	97		56-133		
MCPP (Mecoprop)	2,500 U		2,500.	750	ug/kg	96		54-134		
2,4,5-T	1.7	U	1.7	0.82	ug/kg	112		58-135		
2,4,5-TP	1.7	U	1.7	0.75	ug/kg	125		63-130		
Batch number: 133450006A	Sample number(s): 7306298-7306300									
Aldrin	0.0080	U	0.0080	0.0016	ug/l	85	86	45-125	0	30
Alpha BHC	0.0080	U	0.0080	0.0024	ug/l	95	95	51-139	0	30
Beta BHC	0.0080	U	0.0080	0.0027	ug/l	98	103	57-127	5	30
Gamma BHC - Lindane	0.0080	U	0.0080	0.0016	ug/l	92	93	57-133	1	30
Chlordane	0.40	U	0.40	0.13	ug/l					
p,p-DDD	0.016	U	0.016	0.0040	ug/l	98	94	55-145	4	30
p,p-DDE	0.016	U	0.016	0.0040	ug/l	93	95	58-130	2	30
p,p-DDT	0.016	U	0.016	0.0042	ug/l	95	103	45-140	8	30
Delta BHC	0.0080	U	0.0080	0.0027	ug/l	95	100	52-133	5	30
Dieldrin	0.016	U	0.016	0.0042	ug/l	88	90	60-135	2	30
Endosulfan I	0.0080	U	0.0080	0.0034	ug/l	80	84	56-128	5	30
Endosulfan II	0.016	U	0.016	0.012	ug/l	82	87	53-123	6	30
Endosulfan Sulfate	0.016	U	0.016	0.0046	ug/l	78	93	51-130	17	30
Endrin	0.016	U	0.016	0.0065	ug/l	83	84	43-139	1	30
Endrin Aldehyde	0.080	U	0.080	0.016	ug/l	69	81	50-122	16	20

*- Outside of specification
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(1) The result for one or both determinations was less than five times the LOQ / MRL.
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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1439434
Reported: 01/09/14 at 01:32 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Endrin Ketone	0.016	U	0.016	0.0040	ug/l	81	94	51-133	15	30
Heptachlor	0.0080	U	0.0080	0.0016	ug/l	88	90	48-130	2	30
Heptachlor Epoxide	0.0080	U	0.0080	0.0018	ug/l	91	95	65-128	5	30
Methoxychlor	0.080	U	0.080	0.024	ug/l	80	96	40-150	18	30
Mirex	0.040	U	0.040	0.0080	ug/l					
Toxaphene	0.80	U	0.80	0.24	ug/l					
Batch number: 133450007A	Sample number(s): 7306298,7306300									
Aroclor 5432	0.40	U	0.40	0.080	ug/l					
Aroclor 5442	0.40	U	0.40	0.080	ug/l	42	63	35-84	40*	30
Aroclor 5460	0.40	U	0.40	0.088	ug/l					
PCB-1016	0.40	U	0.40	0.080	ug/l	91	89	67-117	3	30
PCB-1221	0.40	U	0.40	0.080	ug/l					
PCB-1232	0.40	U	0.40	0.16	ug/l					
PCB-1242	0.40	U	0.40	0.080	ug/l					
PCB-1248	0.40	U	0.40	0.080	ug/l					
PCB-1254	0.40	U	0.40	0.080	ug/l					
PCB-1260	0.40	U	0.40	0.12	ug/l	99	86	67-128	14	30
PCB-1262	0.40	U	0.40	0.16	ug/l					
PCB-1268	0.40	U	0.40	0.13	ug/l					
Batch number: 133470015A	Sample number(s): 7306306-7306310									
Aldrin	0.83	U	0.83	0.17	ug/kg	103		60-118		
Alpha BHC	0.83	U	0.83	0.17	ug/kg	109		62-128		
Beta BHC	1.9	U	1.9	0.96	ug/kg	107		69-121		
Gamma BHC - Lindane	0.83	U	0.83	0.17	ug/kg	114		64-130		
Chlordane	17	U	17.	4.0	ug/kg					
p,p-DDD	1.7	U	1.7	0.33	ug/kg	109		69-141		
p,p-DDE	1.7	U	1.7	0.33	ug/kg	115		69-130		
p,p-DDT	1.7	U	1.7	0.35	ug/kg	114		64-139		
Delta BHC	0.83	U	0.83	0.45	ug/kg	110		51-141		
Dieldrin	1.7	U	1.7	0.33	ug/kg	103		73-135		
Endosulfan I	0.83	U	0.83	0.22	ug/kg	87		64-130		
Endosulfan II	1.7	U	1.7	0.33	ug/kg	93		68-128		
Endosulfan Sulfate	1.7	U	1.7	0.33	ug/kg	109		71-132		
Endrin	1.7	U	1.7	0.33	ug/kg	101		70-132		
Endrin Aldehyde	1.7	U	1.7	0.33	ug/kg	97		60-120		
Endrin Ketone	1.8	U	1.8	0.60	ug/kg	103		74-127		
Heptachlor	0.83	U	0.83	0.17	ug/kg	101		62-127		
Heptachlor Epoxide	0.83	U	0.83	0.17	ug/kg	105		69-125		
Methoxychlor	6.7	U	6.7	1.7	ug/kg	107		67-136		
Mirex	1.7	U	1.7	0.35	ug/kg					
Toxaphene	33	U	33.	14	ug/kg					
Batch number: 133480008A	Sample number(s): 7306308-7306310									
Aroclor 5432	33	U	33.	10	ug/kg					
Aroclor 5442	33	U	33.	10	ug/kg	67	86	36-106	24	30
Aroclor 5460	33	U	33.	10	ug/kg					
PCB-1016	17	U	17.	3.3	ug/kg	105		82-116		
PCB-1221	17	U	17.	5.1	ug/kg					
PCB-1232	17	U	17.	4.1	ug/kg					
PCB-1242	17	U	17.	4.1	ug/kg					
PCB-1248	17	U	17.	3.3	ug/kg					
PCB-1254	17	U	17.	4.4	ug/kg					
PCB-1260	17	U	17.	3.9	ug/kg	114		84-125		
PCB-1262	17	U	17.	3.3	ug/kg					

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1439434
Reported: 01/09/14 at 01:32 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
PCB-1268	17	U	17.	3.3	ug/kg					
Batch number: 133450013A	Sample number(s): 7306298-7306300									
EFH (C12-C14)	0.10	U	0.10	0.050	mg/l	100	99	70-130	1	30
EFH (C15-C20)	0.10	U	0.10	0.050	mg/l	111	111	70-130	0	30
EFH (C21-C30)	0.10	U	0.10	0.050	mg/l	107	105	70-130	2	30
EFH (C30 - C40)	0.50	U	0.50	0.10	mg/l	83	87	70-130	5	30
EFH (C8-C11)	0.10	U	0.10	0.050	mg/l	75	74	70-130	2	30
Batch number: 133500018A	Sample number(s): 7306301-7306307									
EFH (C12-C14)	5.0	U	5.0	2.0	mg/kg	89		76-115		
EFH (C15-C20)	5.0	U	5.0	2.0	mg/kg	92		78-127		
EFH (C21-C30)	5.0	U	5.0	2.0	mg/kg	91		77-127		
EFH (C30-C40)	10	U	10.	4.0	mg/kg	74		44-134		
EFH (C8-C11)	5.0	U	5.0	2.0	mg/kg	74		60-115		
Batch number: 133430635002	Sample number(s): 7306299-7306300									
Aluminum	0.400	U	0.400	0.0828	mg/l	105	106	90-112	1	20
Antimony	0.0400	U	0.0400	0.0053	mg/l	103	103	88-111	0	20
Arsenic	0.0400	U	0.0400	0.0068	mg/l	99	99	90-113	0	20
Barium	0.0100	U	0.0100	0.00033	mg/l	102	102	90-110	0	20
Beryllium	0.0100	U	0.0100	0.00067	mg/l	98	98	90-111	1	20
Boron	0.100	U	0.100	0.0084	mg/l	96	97	90-110	0	20
Cadmium	0.0100	U	0.0100	0.00076	mg/l	100	101	90-112	1	20
Calcium	0.400	U	0.400	0.0334	mg/l	102	103	90-112	1	20
Chromium	0.0300	U	0.0300	0.0016	mg/l	100	101	90-110	1	20
Cobalt	0.0100	U	0.0100	0.0013	mg/l	100	101	90-110	1	20
Copper	0.0200	U	0.0200	0.0027	mg/l	103	104	90-112	1	20
Iron	0.400	U	0.400	0.0430	mg/l	106	104	90-112	1	20
Lead	0.0300	U	0.0300	0.0047	mg/l	102	102	88-110	0	20
Lithium	0.0400	U	0.0400	0.0047	mg/l	101	101	90-110	0	20
Magnesium	0.200	U	0.200	0.0167	mg/l	102	103	89-110	1	20
Manganese	0.0100	U	0.0100	0.00083	mg/l	101	102	90-110	1	20
Molybdenum	0.0200	U	0.0200	0.0017	mg/l	101	102	90-110	1	20
Nickel	0.0200	U	0.0200	0.0015	mg/l	104	104	90-111	0	20
Phosphorus	0.200	U	0.200	0.0418	mg/l	98	98	90-110	1	20
Potassium	1.00	U	1.00	0.0980	mg/l	97	98	90-110	1	20
Sodium	2.00	U	2.00	0.167	mg/l	99	100	87-114	1	20
Tin	0.0400	U	0.0400	0.0029	mg/l	99	100	90-110	0	20
Titanium	0.0200	U	0.0200	0.0017	mg/l	103	103	90-113	0	20
Vanadium	0.0100	U	0.0100	0.0020	mg/l	103	103	90-110	0	20
Zinc	0.0040	J	0.0400	0.0020	mg/l	99	100	90-110	0	20
Zirconium	0.100	U	0.100	0.0084	mg/l	101	101	90-110	0	20
Batch number: 133430639002A	Sample number(s): 7306299-7306300									
Silver	0.0010	U	0.0010	0.00011	mg/l	106	97	90-115	10	20
Strontium	0.0020	U	0.0020	0.00034	mg/l	99	108	90-110	9	20
Thallium	0.0010	U	0.0010	0.00015	mg/l	103	107	90-115	4	20
Batch number: 133430639002B	Sample number(s): 7306299-7306300									
Selenium	0.0040	U	0.0040	0.00050	mg/l	106	103	90-120	2	20
Batch number: 133515713003	Sample number(s): 7306299-7306300									
3b Mercury 7470A	0.00020	U	0.00020	0.00006 0	mg/l	96	98	90-115	3	20

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1439434
Reported: 01/09/14 at 01:32 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 13346117102A	Sample number(s): 7306300									
16b Cyanide by EPA 9012B	0.010	U	0.010	0.0050	mg/l	98	102	90-110	4	20
Batch number: 13343002204A	Sample number(s): 7306298-7306300									
28b pH (9040B and 9040C)						100		90-110		
Batch number: 13347162401A	Sample number(s): 7306301-7306310									
14a Moisture Content by 160.3						99		80-120		
14a Moisture Content by 160.3						99		80-120		
14a Moisture Content by 160.3						99		80-120		

Analysis Name	Blank Result		Blank MRL**	Blank EDL	Report Units	OPR %REC	OPRD %REC	OPR/OPRD Limits	RPD	RPD Max
Batch number: 13347003	Sample number(s): 7306308-7306310									
2378-TCDD	0.0842	J	1.00	0.0450	ng/kg	93		67-158		
12378-PeCDD	0.186	J	5.00	0.0305	ng/kg	95		70-142		
123478-HxCDD	0.164	J	5.00	0.0285	ng/kg	100		70-164		
123678-HxCDD	0.174	J	5.00	0.0294	ng/kg	101		76-134		
123789-HxCDD	0.220	J	5.00	0.0273	ng/kg	100		64-162		
1234678-HpCDD	0.255	J	5.00	0.0234	ng/kg	100		70-140		
OCDD	0.606	J	10.0	0.0277	ng/kg	97		78-144		
2378-TCDF	0.0670	J	1.00	0.0481	ng/kg	96		75-158		
12378-PeCDF	0.219	J	5.00	0.0214	ng/kg	99		80-134		
23478-PeCDF	0.287	J	5.00	0.0200	ng/kg	100		68-160		
123478-HxCDF	0.187	J	5.00	0.0280	ng/kg	102		72-134		
123678-HxCDF	0.183	J	5.00	0.0270	ng/kg	101		84-130		
123789-HxCDF	0.333	J	5.00	0.0260	ng/kg	102		78-130		
234678-HxCDF	0.271	J	5.00	0.0256	ng/kg	101		70-156		
1234678-HpCDF	0.219	J	5.00	0.0126	ng/kg	99		82-122		
1234789-HpCDF	0.237	J	5.00	0.0167	ng/kg	103		78-138		
OCDF	0.588	J	10.0	0.0393	ng/kg	100		63-170		
Batch number: 13350003	Sample number(s): 7306298-7306300									
2378-TCDD	2.00	U	2.00	0.761	pg/l	92		60-150		
12378-PeCDD	10.0	U	10.0	0.745	pg/l	94		60-150		
123478-HxCDD	10.0	U	10.0	0.382	pg/l	98		60-150		
123678-HxCDD	10.0	U	10.0	0.409	pg/l	99		60-150		
123789-HxCDD	0.473	J	10.0	0.393	pg/l	93		60-150		
1234678-HpCDD	10.0	U	10.0	0.608	pg/l	94		60-150		
OCDD	1.85	J	20.0	0.931	pg/l	94		60-150		
2378-TCDF	2.00	U	2.00	0.487	pg/l	94		60-150		
12378-PeCDF	10.0	U	10.0	0.416	pg/l	94		60-150		
23478-PeCDF	0.680	J	10.0	0.377	pg/l	96		60-150		
123478-HxCDF	10.0	U	10.0	0.321	pg/l	92		60-150		
123678-HxCDF	0.377	J	10.0	0.339	pg/l	92		60-150		
123789-HxCDF	10.0	U	10.0	0.406	pg/l	94		60-150		
234678-HxCDF	0.467	J	10.0	0.332	pg/l	94		60-150		
1234678-HpCDF	0.319	J	10.0	0.216	pg/l	94		60-150		
1234789-HpCDF	0.418	J	10.0	0.303	pg/l	95		60-150		
OCDF	1.61	J	20.0	1.12	pg/l	89		60-150		
Batch number: 13347003	Sample number(s): 7306308-7306310									
TEQ WHO 2005 - EDLx0.0	0.325				ng/kg					

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1439434
Reported: 01/09/14 at 01:32 PM

Analysis Name	Blank Result	Blank MRL**	Blank EDL	Report Units	OPR %REC	OPRD %REC	OPR/OPRD Limits	RPD	RPD Max
Batch number: 13350003	Sample number(s): 7306298-7306300								
TEQ WHO 2005 - EDLx0.0	0.0467			pg/l					

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 13348SLG026	Sample number(s): 7306308-7306310 UNSPK: P307349								
Acenaphthene	84	90	48-127	7	30				
Acenaphthylene	84	90	49-121	7	30				
Anthracene	84	94	52-126	11	30				
Benzo(a)anthracene	90	99	44-143	10	30				
Benzo(a)pyrene	80	101	44-140	23	30				
Benzo(b)fluoranthene	99	134	26-142	29	30				
Benzo(e)pyrene	81	101	70-130	23	30				
Benzo(g,h,i)perylene	40	48	33-141	18	30				
Benzo(k)fluoranthene	94	114	54-142	20	30				
Butylbenzylphthalate	98	115	49-151	16	30				
Di-n-butylphthalate	89	98	52-147	9	30				
Chrysene	88	106	29-148	18	30				
Dibenz(a,h)anthracene	50	57	20-137	13	30				
Diethylphthalate	90	99	43-145	10	30				
Dimethylphthalate	93	104	58-129	12	30				
Bis(2-Ethylhexyl)phthalate	101	124	39-167	21	30				
Fluoranthene	84	101	40-148	18	30				
Fluorene	87	95	51-137	10	30				
Indeno(1,2,3-cd)pyrene	48	57	17-136	18	30				
1-Methylnaphthalene	100	115	50-131	14	30				
2-Methylnaphthalene	96	112	35-152	15	30				
Naphthalene	87	112	31-148	24	30				
N-Nitrosodimethylamine	82	95	48-113	15	30				
Di-n-octylphthalate	134	171*	52-162	25	30				
Phenanthrene	84	106	29-142	23	30				
Pyrene	90	111	26-143	21	30				
Batch number: 133450034A	Sample number(s): 7306301-7306307 UNSPK: 7306302								
2,4-D	142	151*	42-143	6	35				
Dalapon	62	57	16-98	8	50				
2,4-DB	144	152	10-179	5	50				
Dicamba	106	115	55-133	8	50				
Dinoseb	25	28	10-52	12	35				
2,4-DP (Dichlorprop)	154	161	32-171	4	50				
MCPA	101	110	23-169	9	50				
MCPP (Mecoprop)	95	97	24-164	2	50				
2,4,5-T	124	177*	12-172	35	35				
2,4,5-TP	128	131	10-142	2	35				

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1439434
Reported: 01/09/14 at 01:32 PM

Sample Matrix Quality Control

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Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 133470015A	Sample number(s): 7306306-7306310 UNSPK: P300108								
Aldrin	104	103	16-126	1	50				
Alpha BHC	108	111	14-140	3	50				
Beta BHC	106	107	42-133	1	50				
Gamma BHC - Lindane	114	117	30-137	2	50				
p,p-DDD	111	112	43-149	1	50				
p,p-DDE	114	116	35-152	2	50				
p,p-DDT	115	116	12-193	1	50				
Delta BHC	110	112	13-153	1	50				
Dieldrin	104	106	41-153	2	50				
Endosulfan I	88	90	26-146	1	50				
Endosulfan II	94	96	34-141	3	50				
Endosulfan Sulfate	111	111	10-181	0	50				
Endrin	102	104	30-152	2	50				
Endrin Aldehyde	96	98	23-138	2	50				
Endrin Ketone	103	103	30-148	0	50				
Heptachlor	101	101	16-152	0	50				
Heptachlor Epoxide	103	107	33-144	4	50				
Methoxychlor	108	109	41-161	1	50				
Batch number: 133480008A	Sample number(s): 7306308-7306310 UNSPK: 7306308								
PCB-1016	95	95	41-135	0	50				
PCB-1260	100	97	40-134	2	50				
Batch number: 133500018A	Sample number(s): 7306301-7306307 UNSPK: 7306302								
EFH (C12-C14)	99	94	49-123	5	20				
EFH (C15-C20)	103	100	49-123	3	20				
EFH (C21-C30)	107	101	49-123	6	20				
EFH (C30-C40)	83	87	49-123	4	20				
EFH (C8-C11)	131*	107	49-123	20	20				
Batch number: 13343002204A	Sample number(s): 7306298-7306300 BKG: P304244								
28b pH (9040B and 9040C)						8.4	8.4	0	3
Batch number: 13347162401A	Sample number(s): 7306301-7306310 BKG: 7306302								
14a Moisture Content by 160.3						2.6	2.5	4	20
14a Moisture Content by 160.3						2.6	2.5	4	20
14a Moisture Content by 160.3						2.6	2.5	4	20
Batch number: 13347003	Sample number(s): 7306308-7306310 UNSPK: P301926								
2378-TCDD	87	89	40-135	1	20				
12378-PeCDD	93	95	40-135	1	20				
123478-HxCDD	98	100	40-135	1	20				
123678-HxCDD	99	98	40-135	2	20				
123789-HxCDD	99	97	40-135	3	20				
1234678-HpCDD	91	90	40-135	2	20				
OCDD	76	58	40-135	14	20				
2378-TCDF	92	92	40-135	1	20				
12378-PeCDF	98	99	40-135	0	20				
23478-PeCDF	101	99	40-135	3	20				
123478-HxCDF	101	101	40-135	1	20				

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1439434
Reported: 01/09/14 at 01:32 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
123678-HxCDF	102	101	40-135	2	20				
123789-HxCDF	101	103	40-135	1	20				
234678-HxCDF	99	101	40-135	0	20				
1234678-HpCDF	99	99	40-135	1	20				
1234789-HpCDF	101	102	40-135	0	20				
OCDF	97	96	40-135	2	20				

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 7b SVOC SIM EPA 8270D
Batch number: 13344WAL026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
7306298	106	102	106
7306299	106	101	106
7306300	104	98	103
Blank	112	104	111
LCS	108	103	109
LCSD	107	98	110
Limits:	44-137	62-141	51-136

Analysis Name: 7a SVOC SIM EPA 8270D
Batch number: 13348SLG026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
7306308	84	88	109
7306309	79	83	100
7306310	75	76	96
Blank	82	88	101
LCS	84	86	101
MS	74	68	93
MSD	81	81	102
Limits:	54-129	59-125	61-125

Analysis Name: 22b Pesticides by EPA 8081B
Batch number: 133450006A

	Tetrachloro-m-xylene	Decachlorobiphenyl
7306298	76	60
7306299	74	72
7306300	74	37

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1439434
Reported: 01/09/14 at 01:32 PM

Surrogate Quality Control

Blank	72	69
LCS	82	54
LCSD	81	63
Limits:	60-140	20-120

Analysis Name: 21b PCBs and PCTs 8082A
Batch number: 133450007A

	Tetrachloro-m-xylene	Decachlorobiphenyl
7306298	97	66
7306300	98	44*
Blank	96	80
LCS	101	57
LCSD	96	47
Limits:	45-120	45-120

Analysis Name: 24b Herbicides by EPA 8151A
Batch number: 133450017A

	2,4-Dichlorophenylacetic acid
7306299	90
7306300	100
Blank	131
LCS	141
LCSD	141
Limits:	50-150

Analysis Name: 21a Herbicides by EPA 8151A
Batch number: 133450034A

	2,4-Dichlorophenylacetic acid
7306301	83
7306302	66
7306303	99
7306304	105
7306305	92
7306306	86
7306307	87
Blank	82
LCS	98
MS	99
MSD	105
Limits:	50-150

Analysis Name: 20a Pesticides by EPA 8081B
Batch number: 133470015A

	Tetrachloro-m-xylene	Decachlorobiphenyl
7306306	93	91
7306307	93	94

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1439434
Reported: 01/09/14 at 01:32 PM

Surrogate Quality Control

7306308	79	85
7306309	85	102
7306310	92	99
Blank	100	111
LCS	109	120
MS	101	115
MSD	107	116
Limits:	50-130	20-120

Analysis Name: 19a PCBs and PCTs 8082A
Batch number: 133480008A

	Tetrachloro-m-xylene	Decachlorobiphenyl
7306308	114	97
7306309	107	96
7306310	113	104
Blank	124*	118
LCS	122*	114
LCSD	123*	118
MS	113	101
MSD	111	96
Limits:	45-120	45-120

Analysis Name: 10b TPH by EPA 8015B (DRO)
Batch number: 133450013A

	Chlorobenzene	Orthoterphenyl
7306298	103	93
7306299	100	89
7306300	102	93
Blank	101	88
LCS	104	86
LCSD	99	88
Limits:	45-126	69-119

Analysis Name: 10a TPH by EPA 8015B (DRO)
Batch number: 133500018A

	Chlorobenzene	Orthoterphenyl
7306301	89	91
7306302	87	88
7306303	93	98
7306304	92	92
7306305	88	86
7306306	94	91
7306307	91	86
Blank	86	79
LCS	88	92
MS	93	98
MSD	92	92
Limits:	37-125	66-123

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1439434
Reported: 01/09/14 at 01:32 PM

Surrogate Quality Control

Analysis Name: 23a Dioxin/Furan by EPA 1613B
Batch number: 13347003

	13C12-2378-TCDD	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF	13C12-234678-HxCDF	13C12-123789-HxCDF
7306308	76	68	78	83	81	81
7306309	68	64	73	78	77	77
7306310	73	64	75	80	78	80
Blank	74	75	84	87	88	96
MS	82	73	80	82	86	99
MSD	77	70	79	79	82	81
OPR	68	68	75	79	81	84
Limits:	25-164	21-178	26-152	26-123	28-136	29-147

	13C12-1234678-HpCDF	13C12-1234789-HpCDF	13C12-OCDF	13C12-12378-PeCDD	13C12-123478-HxCDD	13C12-123678-HxCDD
7306308	72	65	57	70	85	84
7306309	74	60	53	69	83	82
7306310	75	60	50	67	83	83
Blank	85	69	60	78	91	92
MS	80	69	62	75	88	88
MSD	73	62	55	72	83	84
OPR	80	62	54	71	83	82
Limits:	28-143	26-138	17-157	25-181	32-141	28-130

	13C12-123789-HxCDD	13C12-1234678-HpCDD	13C12-OCDD	13C12-2378-TCDF	13C12-12378-PeCDF
7306308	84	70	60	71	69
7306309	80	69	61	63	65
7306310	85	67	56	67	65
Blank	89	77	66	69	75
MS	87	76	66	73	75
MSD	83	68	58	72	71
OPR	82	71	61	60	70
Limits:	28-130	23-140	17-157	24-169	24-185

Analysis Name: 17b Dioxin/Furan by EPA 1613B
Batch number: 13350003

	13C12-2378-TCDD	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF	13C12-234678-HxCDF	13C12-123789-HxCDF
7306298	63	59	77	78	76	70
7306299	77	68	96	98	90	79
7306300	77	81	96	94	92	92
Blank	59	55	73	74	71	64
OPR	66	58	82	82	77	69
Limits:	25-164	21-178	26-152	26-123	28-136	29-147

	13C12-1234678-HpCDF	13C12-1234789-HpCDF	13C12-OCDF	13C12-12378-PeCDD	13C12-123478-HxCDD	13C12-123678-HxCDD
7306298	63	52	42	55	75	76
7306299	73	58	45	64	89	92
7306300	90	82	83	75	87	85
Blank	61	49	42	53	70	72

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1439434
Reported: 01/09/14 at 01:32 PM

Surrogate Quality Control

OPR	64	53	42	56	75	78
Limits:	28-143	26-138	17-157	25-181	32-141	28-130

	13C12-123789-HxCDD	13C12-1234678-HpCDD	13C12-OCDD	13C12-2378-TCDF	13C12-12378-PeCDF
7306298	71	56	43	65	61
7306299	87	65	45	78	68
7306300	83	80	77	77	84
Blank	67	55	43	61	57
OPR	76	58	43	68	59
Limits:	28-130	23-140	17-157	24-169	24-185

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

13013 1439434 7306298-310

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 12/5/2013
CarrierName: FedEx
AirbillNo: 797324756363

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20131205-01
Cooler #: 1
Lab: Lancaster
Lab Phone: 717-556-7259
Lab Address: 2425 New Holland Pike
Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Total Nitrogen ASTM D5373	TOC ASTM D5310	Grain Size ASTM 2488-09a	Other Analysis/Notes
EB1-120513	12/5/13 14:30	WQ	None	2 - 1 L Amber	10 day									X																										
EB1-120513	12/5/13 14:30	WQ	HCl	2 - 1 L Amber	10 day																					X														
EB2-120513	12/5/13 15:00	WQ	None	2 - 1 L Amber	10 day									X																										
EB2-120513	12/5/13 15:00	WQ	HCl	2 - 1 L Amber	10 day																					X														

Special Instructions:

Sampler: Pam Hartman

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
Stephanie Myers	12/05/2013	1600									
									CEsh	12/9/13	0910

COC Rev 3

COC 20131205-01, Page 1 of 1

13013 1439434 7306298-310

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 12/5/2013
CarrierName: FedEx
AirbillNo: 797324756363

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20131205-02
Cooler #: 2
Lab: Lancaster
Lab Phone: 717-556-7259
Lab Address: 2425 New Holland Pike, Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Total Nitrogen ASTM D5373	TOC ASTM D5310	Grain Size ASTM 2488-09a	Other Analysis/Notes
EB2-120513	12/5/13 15:00	WQ	None	2 - 1 L Amber	10 day																X																			
EB3-120513	12/5/13 15:30	WQ	None	4 - 1 L Amber	10 day									X							X																			
EB3-120513	12/5/13 15:30	WQ	HCl	2 - 1 L Amber	10 day																					X														

Special Instructions:

Sampler: Pam Hartman

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
[illegible]	12/05/2013	1600									
									[illegible]	12/9/13	0910

COC Rev 3

COC: 20131205-02, Page 1 of 1

13013 1439434 7306298-310

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 12/5/2013
CarrierName: FedEx
AirbillNo: 797324756363

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20131205-03
Cooler #: 3
Lab: Lancaster
Lab Phone: 717-556-7259
Lab Address: 2425 New Holland Pike, Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Total Nitrogen ASTM D5373	TOC ASTM D5310	Grain Size ASTM 2488-09a	Other Analysis/Notes
EB1-120513	12/5/13 14:30	WQ	None	3 - 250 mL Amber	10 day							X			X							X																		
EB1-120513	12/5/13 14:30	WQ	HCl	3 - 40 mL Vial	10 day																				X															
EB1-120513	12/5/13 14:30	WQ	None	1 - 250 mL Poly	10 day														X																					
EB2-120513	12/5/13 15:00	WQ	None	2 - 250 mL Amber	10 day							X										X																		
EB2-120513	12/5/13 15:00	WQ	HCl	3 - 40 mL Vial	10 day																				X															
EB2-120513	12/5/13 15:00	WQ	HNO3 pH<2	1 - 250 mL Poly	10 day	X		X																																
EB2-120513	12/5/13 15:00	WQ	None	1 - 250 mL Poly	10 day														X																					
EB3-120513	12/5/13 15:30	WQ	HNO3 pH<2	1 - 250 mL Poly	10 day	X		X																																
EB3-120513	12/5/13 15:30	WQ	None	3 - 250 mL Amber	10 day							X			X							X																		
EB3-120513	12/5/13 15:30	WQ	None	1 - 250 mL Poly	10 day														X																					
EB3-120513	12/5/13 15:30	WQ	NaOH	1 - 250 mL Poly	10 day																											X								
EB3-120513	12/5/13 15:30	WQ	None	2 - 40 mL Vial	10 day																								X											
EB3-120513	12/5/13 15:30	WQ	HCl	3 - 40 mL Vial	10 day																				X															

Special Instructions:

Sampler: Pam Hartman

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
Shay Myers	12/05/2013	1600									
									[illegible]	12/6/13	0910

SSFL Phase 3 Chain of Custody

13013 1439434 7306298-310

CDM Smith

DateShipped: 12/5/2013
CarrierName: FedEx
AirbillNo: 797324756363

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20131205-04
Cooler #: 4
Lab: Lancaster
Lab Phone: 717-556-7259
Lab Address: 2425 New Holland Pike, Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Total Nitrogen ASTM D5373	TOC ASTM D5310	Grain Size ASTM 2488-09a	Other Analysis/Notes
TB-120513	12/5/13 08:00	WQ	HCl	3 - 40 mL Vial	10 day																				X															
SL-525-NBZ-SB-0.0-0.5	12/5/13 09:30	SO	None	1 - SS-Sleeve	10 day																X					X														
SL-525-NBZ-SB-4.0-5.0MS	12/5/13 10:45	SO	None	3 - SS-Sleeve	10 day																X					X														MS/MSD
SL-525-NBZ-SB-4.0-5.0MS	12/5/13 10:45	SO	None	6 - Encore	10 day																				X															MS/MSD
SL-825-NBZ-SB-4.0-5.0	12/5/13 11:00	SO	None	1 - SS-Sleeve	10 day																X					X														
SL-825-NBZ-SB-4.0-5.0	12/5/13 11:00	SO	None	2 - Encore	10 day																				X															
SL-526-NBZ-SB-0.0-0.5	12/5/13 11:30	SO	None	1 - SS-Sleeve	10 day																X	X				X														
SL-526-NBZ-SB-2.5-3.5	12/5/13 12:00	SO	None	1 - SS-Sleeve	10 day																X	X				X														
SL-526-NBZ-SB-2.5-3.5	12/5/13 12:00	SO	None	2 - Encore	10 day																				X															
SL-527-NBZ-SB-0.0-0.5	12/5/13 10:45	SO	None	2 - SS-Sleeve	10 day							X		X	X							X																		
SL-528-NBZ-SB-0.0-0.5	12/5/13 12:05	SO	None	2 - SS-Sleeve	10 day							X		X	X							X																		
SL-529-NBZ-SB-0.0-0.5	12/5/13 13:00	SO	None	2 - SS-Sleeve	10 day							X		X	X							X																		

Special Instructions:

Sampler:

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
[signature]	12/05/2013	1600									
									[signature]	12/9/13	0910

Nicole Maljovec

From: Zakowski, Cherie [ZakowskiCA@cdmsmith.com]
Sent: Monday, December 09, 2013 11:41 AM
To: Nicole Maljovec
Subject: RE: SSFL 12/05/2013 COC- Coolers Delayed

No trip blank either. Thanks!

Cherie Zakowski
Project Manager/Scientist
CDM Smith
555 17th Street, Suite 1100
Denver, CO 80202
Direct Phone: 720-264-1109
Main Phone: 303-383-2300
Fax: 303-308-3003

-----Original Message-----
From: Nicole Maljovec [mailto:nmaljovec@lancasterlabs.com]
Sent: Monday, December 09, 2013 9:33 AM
To: Zakowski, Cherie
Cc: Burgesser, Todd; Hartman, Pamela; Mysel, Stefanie
Subject: RE: SSFL 12/05/2013 COC- Coolers Delayed

Hi all,
The coolers arrived this morning. The temperature blanks were at 0.7-2.3°C. Based on the rules below, we're going to discard the encores and won't run Nitrate on the equipment blanks.

Do you still want to analyze the three EBs and TB for GRO since none of the soils are being analyzed for GRO now?

Thanks,
Nicole

Nicole Maljovec
Eurofins Lancaster Labs
Phone: 717-556-7259

-----Original Message-----
From: Zakowski, Cherie [mailto:ZakowskiCA@cdmsmith.com]
Sent: Friday, December 06, 2013 5:33 PM
To: Nicole Maljovec
Cc: Burgesser, Todd; Hartman, Pamela; Mysel, Stefanie
Subject: RE: SSFL 12/05/2013 COC- Coolers Delayed

Here's the plan:

1) If you get the Encore samples on Saturday we are ok.
2) If you get the Encore samples on Monday and they aren't frozen (Maybe the coolers in a very cold place) then you can't run them. The results would be rejected.
3) If you get Nitrates on Saturday you ok - but Monday - they won't work
4) If the temperature is below 11 Degrees all is good.
5) If the temperature is above level degrees the Encores would be rejected but all else is ok (just estimated)

Nicole, please let us know when you get the coolers.

Thanks

Cherie Zakowski
Project Manager/Scientist
CDM Smith
555 17th Street, Suite 1100
Denver, CO 80202

Nicole Maljovec

From: Hartman, Pamela [HartmanPM@cdmsmith.com]
Sent: Monday, December 09, 2013 11:37 AM
To: Zakowski, Cherie; Nicole Maljovec
Cc: Burgesser, Todd; Mysel, Stefanie
Subject: RE: SSFL 12/05/2013 COC- Coolers Delayed

Yes, I would think we would drop the GRO EB for last week.

Pamela Hartman
CDM Smith
523 West Sixth Street Suite 400
Los Angeles, CA 90014
714 900 0916 (Cell)

From: Zakowski, Cherie
Sent: Monday, December 09, 2013 8:34 AM
To: Nicole Maljovec
Cc: Burgesser, Todd; Hartman, Pamela; Mysel, Stefanie
Subject: RE: SSFL 12/05/2013 COC- Coolers Delayed

Pam - I think that would be a waste correct? You will have to resample the soils anyway? Do you agree?

Cherie Zakowski
Project Manager/Scientist
CDM Smith
555 17th Street, Suite 1100
Denver, CO 80202
Direct Phone: 720-264-1109
Main Phone: 303-383-2300
Fax: 303-308-3003

-----Original Message-----
From: Nicole Maljovec [mailto:nmaljovec@lancasterlabs.com]
Sent: Monday, December 09, 2013 9:33 AM
To: Zakowski, Cherie
Cc: Burgesser, Todd; Hartman, Pamela; Mysel, Stefanie
Subject: RE: SSFL 12/05/2013 COC- Coolers Delayed

Hi all,
The coolers arrived this morning. The temperature blanks were at 0.7-2.3°C. Based on the rules below, we're going to discard the encores and won't run Nitrate on the equipment blanks.

Do you still want to analyze the three EBs and TB for GRO since none of the soils are being analyzed for GRO now?

Thanks,
Nicole

Nicole Maljovec
Eurofins Lancaster Labs
Phone: 717-556-7259

-----Original Message-----
From: Zakowski, Cherie [mailto:ZakowskiCA@cdmsmith.com]
Sent: Friday, December 06, 2013 5:33 PM
To: Nicole Maljovec
Cc: Burgesser, Todd; Hartman, Pamela; Mysel, Stefanie
Subject: RE: SSFL 12/05/2013 COC- Coolers Delayed

Here's the plan:

1) If you get the Encore samples on Saturday we are ok.
2) If you get the Encore samples on Monday and they aren't frozen (Maybe the coolers in a very cold place) then you can't run them. The results would be rejected.

3) If you get Nitrates on Saturday you ok - but Monday - they won't work
4) If the temperature is below 11 Degrees all is good.
5) If the temperature is above level degrees the Encores would be rejected but all else is ok (just estimated)

Nicole, please let us know when you get the coolers.

Thanks

Cherie Zakowski
Project Manager/Scientist
CDM Smith
555 17th Street, Suite 1100
Denver, CO 80202
Direct Phone: 720-264-1109
Main Phone: 303-383-2300
Fax: 303-308-3003

-----Original Message-----
From: Nicole Maljovec [mailto:nmaljovec@lancasterlabs.com]
Sent: Friday, December 06, 2013 2:24 PM
To: Zakowski, Cherie
Subject: RE: SSFL 12/05/2013 COC- Coolers Delayed

Sure! Here you go.

Nicole Maljovec
Eurofins Lancaster Labs
Phone: 717-556-7259

-----Original Message-----
From: Zakowski, Cherie [mailto:ZakowskiCA@cdmsmith.com]
Sent: Friday, December 06, 2013 4:18 PM
To: Nicole Maljovec
Subject: RE: SSFL 12/05/2013 COC- Coolers Delayed

Hi Nicole: Do you have the list of analyses? I wasn't included on the original email so I didn't get the excel spread sheet thing.

Thanks

Cherie Zakowski
Project Manager/Scientist
CDM Smith
555 17th Street, Suite 1100
Denver, CO 80202
Direct Phone: 720-264-1109
Main Phone: 303-383-2300
Fax: 303-308-3003

-----Original Message-----
From: Nicole Maljovec [mailto:nmaljovec@lancasterlabs.com]
Sent: Friday, December 06, 2013 1:30 PM
To: Mysel, Stefanie; Burgesser, Todd; Zakowski, Cherie
Cc: Hartman, Pamela
Subject: RE: SSFL 12/05/2013 COC- Coolers Delayed

One more thing! The entry people reminded me that an EB with Nitrate is included in the delayed coolers. Ok to run past hold when it gets here?
I'm being proactive in case the coolers arrive on Saturday.

Nicole Maljovec
Eurofins Lancaster Labs

Phone: 717-556-7259

-----Original Message-----
From: Nicole Maljovec
Sent: Friday, December 06, 2013 1:37 PM
To: 'Mysel, Stefanie'; Burgesser, Todd
Cc: Hartman, Pamela
Subject: SSFL 12/05/2013 COC- Coolers Delayed

Hi all,
The 4 coolers for today are delayed in Indiana due to inclement weather.
We're assuming the coolers won't make it here until tomorrow or Monday.

If the temperature is above 6.0C should we log the samples in?

Thanks!
Nicole

Nicole Maljovec
Eurofins Lancaster Labs
Phone: 717-556-7259

-----Original Message-----
From: Mysel, Stefanie [mailto:MyselSJ@cdmsmith.com]
Sent: Thursday, December 05, 2013 5:42 PM
To: !US19_SSFLShip; Burgesser, Todd
Cc: Hartman, Pamela; Mysel, Stefanie
Subject: SSFL 12/05/2013 COC

4 coolers were shipped to your lab for delivery tomorrow. These samples are from today's sampling. Samples were collected from NBZ. The airbill number for today's shipment is 797324756363. Let me know if you have any questions or issues. Attached is an excel table with sample names, dates and times from today's sampling. Tomorrow's samples will be Saturday delivery.

Regards,

Stefanie

Stefanie J. Mysel
Geologist

CDM Smith
111 Academy Way
Suite 150
Irvine, CA 92617
Direct: 949-930-9877
Main: 949-752-5452
Cell: 949-579-0634
Email: myselsj@cdmsmith.com<mailto:myselsj@cdmsmith.com>

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Environmental Sample Administration Receipt Documentation Log

1439434

Client/Project: CDM Smith

Date of Receipt: 12/9/13

Time of Receipt: 0910

Source Code: 50-1

Shipping Container Sealed: YES NO

Custody Seal Present * : YES NO

* Custody seal was intact unless otherwise noted in the discrepancy section

Package: Chilled Not Chilled

Temperature of Shipping Containers							
Cooler #	Thermometer ID	Temperature (°C)	Temp Bottle (TB) or Surface Temp (ST)	Wet Ice (WI) or Dry Ice (DI) or Ice Packs (IP)	Ice Present? Y/N	Loose (L) Bagged Ice (B) or NA	Comments
1	DT131	1.0	TB	WI	Y	B	
2	↓	1.5	↓	↓	↓	↓	
3	↓	0.7	↓	↓	↓	↓	
4	↓	2.3	↓	↓	↓	↓	
5							
6							

Number of Trip Blanks received NOT listed on chain of custody: Ø

Paperwork Discrepancy/Unpacking Problems:

Unpacker Signature/Emp#: [signature] 3647 **Date/Time:** 12/9/13 1125

Issued by Dept. 6042 Management

2174.06

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Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	**BMQL**	Below Minimum Quantitation Level
N.D.	none detected	**MPN**	Most Probable Number
TNTC	Too Numerous To Count	**CP Units**	cobalt-chloroplatinate units
IU	International Units	**NTU**	nephelometric turbidity units
umhos/cm	micromhos/cm	**ng**	nanogram(s)
C	degrees Celsius	**F**	degrees Fahrenheit
meq	milliequivalents	**lb.**	pound(s)
g	gram(s)	**kg**	kilogram(s)
µg	microgram(s)	**mg**	milligram(s)
mL	milliliter(s)	**L**	liter(s)
m3	cubic meter(s)	**µL**	microliter(s)
		pg/L	picogram/liter

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Data Qualifiers:

C – result confirmed by reanalysis.

J - estimated value – The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	**B**	Value is <CRDL, but ≥IDL
B	Analyte was also detected in the blank	**E**	Estimated due to interference
C	Pesticide result confirmed by GC/MS	**M**	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	**N**	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	**S**	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	**U**	Compound was not detected
P	Concentration difference between primary and confirmation columns >25%	**W**	Post digestion spike out of control limits
U	Compound was not detected	*****	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	**+**	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as “analyze immediately” are not performed within 15 minutes.

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ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

December 31, 2013

Project: SSFL Phase 3 Sampling

Submittal Date: 12/07/2013
Group Number: 1439273
SDG: PH141
PO Number: 1204-002-001-AL
State of Sample Origin: CA

Client Sample Description	Lancaster Labs (LL) #
SL-512-NBZ-SB-0.0-0.5 Soil	7305591
SL-534-NBZ-SB-0.0-0.5 Soil	7305592
SL-535-NBZ-SB-0.0-0.5 Soil	7305593
SL-501-NBZ-SB-0.0-0.5 Soil	7305594
SL-537-NBZ-SB-0.0-0.5 Soil	7305595
SL-538-NBZ-SB-0.0-0.5 Soil	7305596
SL-556-NBZ-SB-0.0-0.5 Soil	7305597
SL-556-NBZ-SB-4.0-5.0 Soil	7305598
TB-120613 Water	7305599

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO Eurofins Lancaster Labs Env Attn: Nicole Maljovec

Respectfully Submitted,

Nicole L. Maljovec
Principal Specialist Group Leader

(717) 556-7259

Sample Description: SL-512-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7305591
LL Group # 1439273
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/06/2013 09:25

Submitted: 12/07/2013 10:50
Reported: 12/31/2013 14:30

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

512-- SDG#: PH141-01

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.67	1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.34	1
12969	Anthracene	120-12-7	1.7	U	1.7	0.34	1
12969	Benzo(a)anthracene	56-55-3	1.7	U	1.7	0.67	1
12969	Benzo(a)pyrene	50-32-8	1.7	U	1.7	0.67	1
12969	Benzo(b)fluoranthene	205-99-2	0.88	J	1.7	0.67	1
12969	Benzo(e)pyrene	192-97-2	17	U	17	3.4	1
12969	Benzo(g,h,i)perylene	191-24-2	1.7	U	1.7	0.67	1
12969	Benzo(k)fluoranthene	207-08-9	1.7	U	1.7	0.67	1
12969	Butylbenzylphthalate	85-68-7	18	U	18	6.0	1
12969	Di-n-butylphthalate	84-74-2	18	U	18	6.0	1
12969	Chrysene	218-01-9	0.68	J	1.7	0.34	1
12969	Dibenz(a,h)anthracene	53-70-3	1.7	U	1.7	0.67	1
12969	Diethylphthalate	84-66-2	18	U	18	6.0	1
12969	Dimethylphthalate	131-11-3	18	U	18	6.0	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	18	U	18	6.0	1
12969	Fluoranthene	206-44-0	0.77	J	1.7	0.67	1
12969	Fluorene	86-73-7	1.7	U	1.7	0.67	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.7	U	1.7	0.67	1
12969	1-Methylnaphthalene	90-12-0	1.7	U	1.7	0.67	1
12969	2-Methylnaphthalene	91-57-6	1.7	U	1.7	0.67	1
12969	Naphthalene	91-20-3	1.7	U	1.7	0.67	1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.67	1
12969	Di-n-octylphthalate	117-84-0	18	U	18	6.0	1
12969	Phenanthrene	85-01-8	1.7	U	1.7	0.67	1
12969	Pyrene	129-00-0	0.74	J	1.7	0.67	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.1	U	5.1	2.0	1
12952	EFH (C15-C20)	n.a.	2.4	J	5.1	2.0	1
12952	EFH (C21-C30)	n.a.	12		5.1	2.0	1
12952	EFH (C30-C40)	n.a.	38		10	4.1	1
12952	EFH (C8-C11)	n.a.	5.1	U	5.1	2.0	1
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	11,700		39.6	7.14	1
06944	Antimony	7440-36-0	3.96	U	3.96	0.733	1
06935	Arsenic	7440-38-2	19.7		3.96	0.693	1
06946	Barium	7440-39-3	61.3		0.991	0.0327	1
06947	Beryllium	7440-41-7	0.514	J	0.991	0.0664	1
07914	Boron	7440-42-8	9.91	U	9.91	0.832	1
06949	Cadmium	7440-43-9	0.372	J	0.991	0.0753	1
01650	Calcium	7440-70-2	1,980		19.8	3.31	1
06951	Chromium	7440-47-3	14.9		2.97	0.159	1
06952	Cobalt	7440-48-4	4.67		0.991	0.0981	1
06953	Copper	7440-50-8	1.74	J	1.98	0.287	1
01654	Iron	7439-89-6	18,200		39.6	3.59	1
06955	Lead	7439-92-1	7.30		2.97	0.495	1
01656	Lithium	7439-93-2	29.1		4.0	0.34	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-512-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7305591
LL Group # 1439273
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/06/2013 09:25

Submitted: 12/07/2013 10:50
Reported: 12/31/2013 14:30

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

512-- SDG#: PH141-01

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01657	Magnesium	7439-95-4	4,720		9.91	1.65	1
06958	Manganese	7439-96-5	257		0.991	0.0822	1
06960	Molybdenum	7439-98-7	1.98	U	1.98	0.168	1
06961	Nickel	7440-02-0	9.40		1.98	0.129	1
10145	Phosphorus	7723-14-0	458		9.91	2.86	1
01662	Potassium	7440-09-7	3,290		99.1	8.26	1
01667	Sodium	7440-23-5	64.2	J	99.1	16.5	1
06969	Tin	7440-31-5	2.71	J	9.91	0.218	1
06970	Titanium	7440-32-6	1,110		0.991	0.168	1
06971	Vanadium	7440-62-2	29.3		0.991	0.129	1
06972	Zinc	7440-66-6	52.9		3.96	0.198	1
10146	Zirconium	7440-67-7	1.48	J	4.95	0.832	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.396	U	0.396	0.0991	2
06142	Silver	7440-22-4	0.198	U	0.198	0.0258	2
06144	Strontium	7440-24-6	8.81		0.396	0.0674	2
06145	Thallium	7440-28-0	0.227		0.198	0.0297	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0167	U	0.0167	0.0100	1
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	2.0		0.10	0.10	1

Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

*=This limit was used in the evaluation of the final result

Sample Description: SL-512-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7305591
LL Group # 1439273
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/06/2013 09:25

Submitted: 12/07/2013 10:50
Reported: 12/31/2013 14:30

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512-- SDG#: PH141-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.999 U	0.999	0.0394	1
11031	12378-PeCDD	40321-76-4	0.0420 JBQ	5.00	0.0294	1
11031	123478-HxCDD	39227-28-6	0.0452 JBQ	5.00	0.0280	1
11031	123678-HxCDD	57653-85-7	0.0917 JBQ	5.00	0.0294	1
11031	123789-HxCDD	19408-74-3	0.0856 JBQ	5.00	0.0268	1
11031	1234678-HpCDD	35822-46-9	1.13 JB	5.00	0.0299	1
11031	OCDD	3268-87-9	8.50 JB	9.99	0.0279	1
11031	2378-TCDF	51207-31-9	0.0559 JBQ	0.999	0.0439	1
11031	12378-PeCDF	57117-41-6	0.0868 JB	5.00	0.0202	1
11031	23478-PeCDF	57117-31-4	0.0828 JBQ	5.00	0.0198	1
11031	123478-HxCDF	70648-26-9	0.0570 JB	5.00	0.0239	1
11031	123678-HxCDF	57117-44-9	0.0490 JB	5.00	0.0237	1
11031	123789-HxCDF	72918-21-9	0.0616 JBQ	5.00	0.0232	1
11031	234678-HxCDF	60851-34-5	0.0502 JB	5.00	0.0223	1
11031	1234678-HpCDF	67562-39-4	0.282 JB	5.00	0.0160	1
11031	1234789-HpCDF	55673-89-7	0.0494 JBQ	5.00	0.0217	1
11031	OCDF	39001-02-0	0.669 JB	9.99	0.0339	1
D/F Toxic Equivalents	**EPA 1613B**		ng/kg	ng/kg	ng/kg	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.0352			1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	65	25 - 164
13C12-12378-PeCDD	65	25 - 181
13C12-123478-HxCDD	82	32 - 141
13C12-123678-HxCDD	80	28 - 130
13C12-123789-HxCDD	80	28 - 130
13C12-1234678-HpCDD	70	23 - 140
13C12-OCDD	57	17 - 157
13C12-2378-TCDF	59	24 - 169
13C12-12378-PeCDF	64	24 - 185
13C12-23478-PeCDF	63	21 - 178
13C12-123478-HxCDF	74	26 - 152
13C12-123678-HxCDF	77	26 - 123
13C12-234678-HxCDF	77	28 - 136
13C12-123789-HxCDF	82	29 - 147
13C12-1234678-HpCDF	75	28 - 143
13C12-1234789-HpCDF	63	26 - 138
13C12-OCDF	52	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column

*=This limit was used in the evaluation of the final result

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Lancaster Laboratories Environmental

Analysis Report

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Sample Description: SL-512-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7305591
LL Group # 1439273
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/06/2013 09:25

Submitted: 12/07/2013 10:50
Reported: 12/31/2013 14:30

CDM Federal Programs Corp.
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Suite 400
Fairfax VA 22030

512-- SDG#: PH141-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-512-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7305591
LL Group # 1439273
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/06/2013 09:25

Submitted: 12/07/2013 10:50
Reported: 12/31/2013 14:30

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

512-- SDG#: PH141-01

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13348SLG026	12/27/2013	13:50	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	13348SLG026	12/16/2013	09:50	Katheryne V Sponheimer	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	133450021A	12/13/2013	01:35	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	133450021A	12/12/2013	03:00	Sherry L Morrow	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13347003	12/17/2013	08:40	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13347003	12/13/2013	11:30	Chin F Ly	1
01643	Aluminum	SW-846 6010C	1	133470637001	12/16/2013	18:27	Katlin N Cataldi	1
06944	Antimony	SW-846 6010C	1	133470637001	12/16/2013	18:27	Katlin N Cataldi	1
06935	Arsenic	SW-846 6010C	1	133470637001	12/16/2013	18:27	Katlin N Cataldi	1
06946	Barium	SW-846 6010C	1	133470637001	12/16/2013	18:27	Katlin N Cataldi	1
06947	Beryllium	SW-846 6010C	1	133470637001	12/16/2013	18:27	Katlin N Cataldi	1
07914	Boron	SW-846 6010C	1	133470637001	12/16/2013	18:27	Katlin N Cataldi	1
06949	Cadmium	SW-846 6010C	1	133470637001	12/16/2013	18:27	Katlin N Cataldi	1
01650	Calcium	SW-846 6010C	1	133470637001	12/16/2013	18:27	Katlin N Cataldi	1
06951	Chromium	SW-846 6010C	1	133470637001	12/16/2013	18:27	Katlin N Cataldi	1
06952	Cobalt	SW-846 6010C	1	133470637001	12/16/2013	18:27	Katlin N Cataldi	1
06953	Copper	SW-846 6010C	1	133470637001	12/16/2013	18:27	Katlin N Cataldi	1
01654	Iron	SW-846 6010C	1	133470637001	12/16/2013	18:27	Katlin N Cataldi	1
06955	Lead	SW-846 6010C	1	133470637001	12/16/2013	18:27	Katlin N Cataldi	1
01656	Lithium	SW-846 6010C	1	133470637001	12/16/2013	18:27	Katlin N Cataldi	1
01657	Magnesium	SW-846 6010C	1	133470637001	12/16/2013	18:27	Katlin N Cataldi	1
06958	Manganese	SW-846 6010C	1	133470637001	12/16/2013	18:27	Katlin N Cataldi	1
06960	Molybdenum	SW-846 6010C	1	133470637001	12/16/2013	18:27	Katlin N Cataldi	1
06961	Nickel	SW-846 6010C	1	133470637001	12/16/2013	18:27	Katlin N Cataldi	1
10145	Phosphorus	SW-846 6010C	1	133470637001	12/16/2013	18:27	Katlin N Cataldi	1
01662	Potassium	SW-846 6010C	1	133470637001	12/16/2013	18:27	Katlin N Cataldi	1
01667	Sodium	SW-846 6010C	1	133470637001	12/16/2013	18:27	Katlin N Cataldi	1
06969	Tin	SW-846 6010C	1	133470637001	12/16/2013	18:27	Katlin N Cataldi	1
06970	Titanium	SW-846 6010C	1	133470637001	12/16/2013	18:27	Katlin N Cataldi	1
06971	Vanadium	SW-846 6010C	1	133470637001	12/16/2013	18:27	Katlin N Cataldi	1
06972	Zinc	SW-846 6010C	1	133470637001	12/16/2013	18:27	Katlin N Cataldi	1
10146	Zirconium	SW-846 6010C	1	133470637001	12/16/2013	18:27	Katlin N Cataldi	1
06141	Selenium	SW-846 6020A	1	133470637001B	12/17/2013	18:38	John P Hook	2
06142	Silver	SW-846 6020A	1	133470637001A	12/17/2013	18:38	John P Hook	2
06144	Strontium	SW-846 6020A	1	133470637001A	12/17/2013	18:38	John P Hook	2
06145	Thallium	SW-846 6020A	1	133470637001A	12/17/2013	18:38	John P Hook	2
00159	3a Mercury 7471A	SW-846 7471B	1	133470638001	12/17/2013	07:42	Damary Valentin	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-512-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7305591
LL Group # 1439273
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/06/2013 09:25

Submitted: 12/07/2013 10:50
Reported: 12/31/2013 14:30

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

512-- SDG#: PH141-01

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	133470637001	12/15/2013 23:55	Annamaria Kuhns	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	133470638001	12/16/2013 02:30	Annamaria Kuhns	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13347162401A	12/13/2013 22:59	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-534-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7305592
LL Group # 1439273
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/06/2013 09:10

Submitted: 12/07/2013 10:50
Reported: 12/31/2013 14:30

CDM Federal Programs Corp.
3201 Jermantown Road
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-534- SDG#: PH141-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.1	U	5.1	2.0	1
12952	EFH (C15-C20)	n.a.	2.5	J	5.1	2.0	1
12952	EFH (C21-C30)	n.a.	18		5.1	2.0	1
12952	EFH (C30-C40)	n.a.	42		10	4.1	1
12952	EFH (C8-C11)	n.a.	5.1	U	5.1	2.0	1
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	2.2		0.10	0.10	1

Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	133450021A	12/13/2013 02:18	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	133450021A	12/12/2013 03:00	Sherry L Morrow	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13347162401A	12/13/2013 22:59	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-535-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7305593
LL Group # 1439273
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/06/2013 10:10

Submitted: 12/07/2013 10:50
Reported: 12/31/2013 14:30

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

-535- SDG#: PH141-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	6.0	U	6.0	2.4	1
12952	EFH (C15-C20)	n.a.	7.0		6.0	2.4	1
12952	EFH (C21-C30)	n.a.	36		6.0	2.4	1
12952	EFH (C30-C40)	n.a.	85		12	4.8	1
12952	EFH (C8-C11)	n.a.	6.0	U	6.0	2.4	1
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	16.0		0.10	0.10	1

Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	133450021A	12/13/2013 02:40	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	133450021A	12/12/2013 03:00	Sherry L Morrow	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13347162401A	12/13/2013 22:59	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-501-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7305594
LL Group # 1439273
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/06/2013 12:50

Submitted: 12/07/2013 10:50
Reported: 12/31/2013 14:30

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

-501- SDG#: PH141-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	13,400		39.5	7.11	1
06944	Antimony	7440-36-0	3.95	U	3.95	0.730	1
06935	Arsenic	7440-38-2	3.19	J	3.95	0.691	1
06946	Barium	7440-39-3	87.6		0.987	0.0326	1
06947	Beryllium	7440-41-7	0.496	J	0.987	0.0661	1
07914	Boron	7440-42-8	9.87	U	9.87	0.829	1
06949	Cadmium	7440-43-9	0.425	J	0.987	0.0750	1
01650	Calcium	7440-70-2	2,460		19.7	3.30	1
06951	Chromium	7440-47-3	17.8		2.96	0.158	1
06952	Cobalt	7440-48-4	5.64		0.987	0.0977	1
06953	Copper	7440-50-8	3.26		1.97	0.286	1
01654	Iron	7439-89-6	21,500		39.5	3.57	1
06955	Lead	7439-92-1	10.7		2.96	0.493	1
01656	Lithium	7439-93-2	29.0		3.9	0.34	1
01657	Magnesium	7439-95-4	5,500		9.87	1.65	1
06958	Manganese	7439-96-5	330		0.987	0.0819	1
06960	Molybdenum	7439-98-7	0.197	J	1.97	0.168	1
06961	Nickel	7440-02-0	11.2		1.97	0.128	1
10145	Phosphorus	7723-14-0	472		9.87	2.85	1
01662	Potassium	7440-09-7	3,520		98.7	8.23	1
01667	Sodium	7440-23-5	84.2	J	98.7	16.5	1
06969	Tin	7440-31-5	2.70	J	9.87	0.217	1
06970	Titanium	7440-32-6	1,180		0.987	0.168	1
06971	Vanadium	7440-62-2	36.4		0.987	0.128	1
06972	Zinc	7440-66-6	60.9		3.95	0.197	1
10146	Zirconium	7440-67-7	0.897	J	4.93	0.829	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.104	J	0.395	0.0987	2
06142	Silver	7440-22-4	0.0322	J	0.197	0.0257	2
06144	Strontium	7440-24-6	14.7		0.395	0.0671	2
06145	Thallium	7440-28-0	0.238		0.197	0.0296	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0129	J	0.0166	0.0099	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045D	n.a.	6.98		0.0100	0.0100	1
	The pH was measured in water at 19.4 C.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	1.6		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-501-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7305594
LL Group # 1439273
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/06/2013 12:50

Submitted: 12/07/2013 10:50
Reported: 12/31/2013 14:30

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

-501- SDG#: PH141-04

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01643	Aluminum	SW-846 6010C	1	133470637001	12/16/2013 18:30	Katlin N Cataldi	1
06944	Antimony	SW-846 6010C	1	133470637001	12/16/2013 18:30	Katlin N Cataldi	1
06935	Arsenic	SW-846 6010C	1	133470637001	12/16/2013 18:30	Katlin N Cataldi	1
06946	Barium	SW-846 6010C	1	133470637001	12/16/2013 18:30	Katlin N Cataldi	1
06947	Beryllium	SW-846 6010C	1	133470637001	12/16/2013 18:30	Katlin N Cataldi	1
07914	Boron	SW-846 6010C	1	133470637001	12/16/2013 18:30	Katlin N Cataldi	1
06949	Cadmium	SW-846 6010C	1	133470637001	12/16/2013 18:30	Katlin N Cataldi	1
01650	Calcium	SW-846 6010C	1	133470637001	12/16/2013 18:30	Katlin N Cataldi	1
06951	Chromium	SW-846 6010C	1	133470637001	12/16/2013 18:30	Katlin N Cataldi	1
06952	Cobalt	SW-846 6010C	1	133470637001	12/16/2013 18:30	Katlin N Cataldi	1
06953	Copper	SW-846 6010C	1	133470637001	12/16/2013 18:30	Katlin N Cataldi	1
01654	Iron	SW-846 6010C	1	133470637001	12/16/2013 18:30	Katlin N Cataldi	1
06955	Lead	SW-846 6010C	1	133470637001	12/16/2013 18:30	Katlin N Cataldi	1
01656	Lithium	SW-846 6010C	1	133470637001	12/16/2013 18:30	Katlin N Cataldi	1
01657	Magnesium	SW-846 6010C	1	133470637001	12/16/2013 18:30	Katlin N Cataldi	1
06958	Manganese	SW-846 6010C	1	133470637001	12/16/2013 18:30	Katlin N Cataldi	1
06960	Molybdenum	SW-846 6010C	1	133470637001	12/16/2013 18:30	Katlin N Cataldi	1
06961	Nickel	SW-846 6010C	1	133470637001	12/16/2013 18:30	Katlin N Cataldi	1
10145	Phosphorus	SW-846 6010C	1	133470637001	12/16/2013 18:30	Katlin N Cataldi	1
01662	Potassium	SW-846 6010C	1	133470637001	12/16/2013 18:30	Katlin N Cataldi	1
01667	Sodium	SW-846 6010C	1	133470637001	12/16/2013 18:30	Katlin N Cataldi	1
06969	Tin	SW-846 6010C	1	133470637001	12/16/2013 18:30	Katlin N Cataldi	1
06970	Titanium	SW-846 6010C	1	133470637001	12/16/2013 18:30	Katlin N Cataldi	1
06971	Vanadium	SW-846 6010C	1	133470637001	12/16/2013 18:30	Katlin N Cataldi	1
06972	Zinc	SW-846 6010C	1	133470637001	12/16/2013 18:30	Katlin N Cataldi	1
10146	Zirconium	SW-846 6010C	1	133470637001	12/16/2013 18:30	Katlin N Cataldi	1
06141	Selenium	SW-846 6020A	1	133470637001B	12/17/2013 18:41	John P Hook	2
06142	Silver	SW-846 6020A	1	133470637001A	12/17/2013 18:41	John P Hook	2
06144	Strontium	SW-846 6020A	1	133470637001A	12/17/2013 18:41	John P Hook	2
06145	Thallium	SW-846 6020A	1	133470637001A	12/17/2013 18:41	John P Hook	2
00159	3a Mercury 7471A	SW-846 7471B	1	133470638001	12/17/2013 07:44	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	133470637001	12/15/2013 23:55	Annamaria Kuhns	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	133470638001	12/16/2013 02:30	Annamaria Kuhns	1
00394	15a pH by 9045D	SW-846 9045D modified	1	13341039401A	12/07/2013 15:05	Noah M Rainbow	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13347162401A	12/13/2013 22:59	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-537-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7305595
LL Group # 1439273
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/06/2013 12:55

Submitted: 12/07/2013 10:50
Reported: 12/31/2013 14:30

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

-537- SDG#: PH141-05

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs	**SW-846 8081B**		**ug/kg**		**ug/kg**	**ug/kg**	
10590	Aldrin	309-00-2	0.86	U	0.86	0.18	1
10590	Alpha BHC	319-84-6	0.86	U	0.86	0.18	1
10590	Beta BHC	319-85-7	2.0	U	2.0	0.99	1
10590	Gamma BHC - Lindane	58-89-9	0.86	U	0.86	0.18	1
10590	Chlordane	57-74-9	18	U	18	4.1	1
10590	p,p-DDD	72-54-8	1.8	U	1.8	0.34	1
10590	p,p-DDE	72-55-9	0.89	J	1.8	0.34	1
10590	p,p-DDT	50-29-3	0.86	J	1.8	0.36	1
10590	Delta BHC	319-86-8	0.86	U	0.86	0.46	1
10590	Dieldrin	60-57-1	1.9	U	1.9	1.9	1
10590	Endosulfan I	959-98-8	0.86	U	0.86	0.23	1
10590	Endosulfan II	33213-65-9	1.8	U	1.8	0.34	1
10590	Endosulfan Sulfate	1031-07-8	1.8	U	1.8	0.34	1
10590	Endrin	72-20-8	1.8	U	1.8	0.34	1
10590	Endrin Aldehyde	7421-93-4	1.8	U	1.8	0.34	1
10590	Endrin Ketone	53494-70-5	1.9	U	1.9	0.62	1
10590	Heptachlor	76-44-8	0.86	U	0.86	0.18	1
10590	Heptachlor Epoxide	1024-57-3	0.86	U	0.86	0.18	1
10590	Methoxychlor	72-43-5	6.9	U	6.9	1.8	1
10590	Mirex	2385-85-5	1.8	U	1.8	0.36	1
10590	Toxaphene	8001-35-2	34	U	34	14	1
Reporting limits were raised due to interference from the sample matrix.							
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	10	U	10	4.1	2
12952	EFH (C15-C20)	n.a.	8.1	J	10	4.1	2
12952	EFH (C21-C30)	n.a.	43		10	4.1	2
12952	EFH (C30-C40)	n.a.	140		21	8.2	2
12952	EFH (C8-C11)	n.a.	10	U	10	4.1	2
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	3.0		0.10	0.10	1
Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.							

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-537-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7305595
LL Group # 1439273
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/06/2013 12:55

Submitted: 12/07/2013 10:50
Reported: 12/31/2013 14:30

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

-537- SDG#: PH141-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0995 JBQ	0.996	0.0792	1
11031	12378-PeCDD	40321-76-4	0.143 JBQ	4.98	0.0548	1
11031	123478-HxCDD	39227-28-6	0.0843 JB	4.98	0.0516	1
11031	123678-HxCDD	57653-85-7	0.272 JB	4.98	0.0541	1
11031	123789-HxCDD	19408-74-3	0.228 JBQ	4.98	0.0504	1
11031	1234678-HpCDD	35822-46-9	2.71 JB	4.98	0.0582	1
11031	OCDD	3268-87-9	19.3 B	9.96	0.0507	1
11031	2378-TCDF	51207-31-9	0.194 JBQ	0.996	0.0894	1
11031	12378-PeCDF	57117-41-6	0.190 JB	4.98	0.0500	1
11031	23478-PeCDF	57117-31-4	0.405 JB	4.98	0.0473	1
11031	123478-HxCDF	70648-26-9	0.161 JB	4.98	0.0536	1
11031	123678-HxCDF	57117-44-9	0.182 JB	4.98	0.0514	1
11031	123789-HxCDF	72918-21-9	0.0541 JBQ	4.98	0.0518	1
11031	234678-HxCDF	60851-34-5	0.181 JB	4.98	0.0491	1
11031	1234678-HpCDF	67562-39-4	0.633 JB	4.98	0.0379	1
11031	1234789-HpCDF	55673-89-7	0.0524 JBQ	4.98	0.0468	1
11031	OCDF	39001-02-0	1.35 JB	9.96	0.0730	1
D/F Toxic Equivalents	**EPA 1613B**		ng/kg	ng/kg	ng/kg	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.255			1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	72	25 - 164
13C12-12378-PeCDD	73	25 - 181
13C12-123478-HxCDD	86	32 - 141
13C12-123678-HxCDD	85	28 - 130
13C12-123789-HxCDD	86	28 - 130
13C12-1234678-HpCDD	73	23 - 140
13C12-OCDD	61	17 - 157
13C12-2378-TCDF	66	24 - 169
13C12-12378-PeCDF	70	24 - 185
13C12-23478-PeCDF	69	21 - 178
13C12-123478-HxCDF	78	26 - 152
13C12-123678-HxCDF	80	26 - 123
13C12-234678-HxCDF	82	28 - 136
13C12-123789-HxCDF	86	29 - 147
13C12-1234678-HpCDF	77	28 - 143
13C12-1234789-HpCDF	65	26 - 138
13C12-OCDF	56	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column

*=This limit was used in the evaluation of the final result

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Lancaster Laboratories
Environmental

Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: SL-537-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7305595
LL Group # 1439273
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/06/2013 12:55

Submitted: 12/07/2013 10:50
Reported: 12/31/2013 14:30

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

-537- SDG#: PH141-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

Q EMPC - Estimated Maximum Possible Concentration
F Interference is present
S Saturation of detection signal

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-537-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7305595
LL Group # 1439273
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/06/2013 12:55

Submitted: 12/07/2013 10:50
Reported: 12/31/2013 14:30

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

-537- SDG#: PH141-05

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10590	20a Pesticides by EPA 8081B	SW-846 8081B	1	133470015A	12/16/2013 22:24	Jamie L Brillhart	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	133470015A	12/13/2013 17:50	Sally L Appleyard	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	133450021A	12/13/2013 21:17	Heather E Williams	2
12959	EFH soil ext.(microwave)	SW-846 3546	1	133450021A	12/12/2013 03:00	Sherry L Morrow	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13347003	12/17/2013 09:37	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13347003	12/13/2013 11:30	Chin F Ly	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13347162401A	12/13/2013 22:59	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

eurofins
Lancaster Laboratories Environmental
2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Analysis Report

Sample Description: SL-538-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7305596
LL Group # 1439273
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/06/2013 14:05

Submitted: 12/07/2013 10:50
Reported: 12/31/2013 14:30

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

-538- SDG#: PH141-06

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.67	1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.34	1
12969	Anthracene	120-12-7	1.7	U	1.7	0.34	1
12969	Benzo(a)anthracene	56-55-3	1.7	U	1.7	0.67	1
12969	Benzo(a)pyrene	50-32-8	1.7	U	1.7	0.67	1
12969	Benzo(b)fluoranthene	205-99-2	0.78	J	1.7	0.67	1
12969	Benzo(e)pyrene	192-97-2	17	U	17	3.4	1
12969	Benzo(g,h,i)perylene	191-24-2	1.7	U	1.7	0.67	1
12969	Benzo(k)fluoranthene	207-08-9	1.7	U	1.7	0.67	1
12969	Butylbenzylphthalate	85-68-7	18	U	18	6.1	1
12969	Di-n-butylphthalate	84-74-2	18	U	18	6.1	1
12969	Chrysene	218-01-9	0.71	J	1.7	0.34	1
12969	Dibenz(a,h)anthracene	53-70-3	1.7	U	1.7	0.67	1
12969	Diethylphthalate	84-66-2	18	U	18	6.1	1
12969	Dimethylphthalate	131-11-3	18	U	18	6.1	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	18	U	18	6.1	1
12969	Fluoranthene	206-44-0	0.72	J	1.7	0.67	1
12969	Fluorene	86-73-7	1.7	U	1.7	0.67	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.7	U	1.7	0.67	1
12969	1-Methylnaphthalene	90-12-0	1.7	U	1.7	0.67	1
12969	2-Methylnaphthalene	91-57-6	1.7	U	1.7	0.67	1
12969	Naphthalene	91-20-3	1.7	U	1.7	0.67	1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.67	1
12969	Di-n-octylphthalate	117-84-0	18	U	18	6.1	1
12969	Phenanthrene	85-01-8	1.7	U	1.7	0.67	1
12969	Pyrene	129-00-0	0.88	J	1.7	0.67	1
Pesticides/PCBs	**SW-846 8081B**		**ug/kg**		**ug/kg**	**ug/kg**	
10590	Aldrin	309-00-2	0.84	U	0.84	0.17	1
10590	Alpha BHC	319-84-6	0.84	U	0.84	0.17	1
10590	Beta BHC	319-85-7	1.9	U	1.9	0.98	1
10590	Gamma BHC - Lindane	58-89-9	0.84	U	0.84	0.17	1
10590	Chlordane	57-74-9	17	U	17	4.1	1
10590	p,p-DDD	72-54-8	1.7	U	1.7	0.34	1
10590	p,p-DDE	72-55-9	1.7	U	1.7	0.34	1
10590	p,p-DDT	50-29-3	1.7	U	1.7	0.36	1
10590	Delta BHC	319-86-8	0.84	U	0.84	0.46	1
10590	Dieldrin	60-57-1	1.7	U	1.7	0.34	1
10590	Endosulfan I	959-98-8	0.84	U	0.84	0.22	1
10590	Endosulfan II	33213-65-9	1.7	U	1.7	0.34	1
10590	Endosulfan Sulfate	1031-07-8	1.7	U	1.7	0.34	1
10590	Endrin	72-20-8	1.7	U	1.7	0.34	1
10590	Endrin Aldehyde	7421-93-4	1.7	U	1.7	0.34	1
10590	Endrin Ketone	53494-70-5	1.8	U	1.8	0.61	1
10590	Heptachlor	76-44-8	0.84	U	0.84	0.17	1
10590	Heptachlor Epoxide	1024-57-3	0.84	U	0.84	0.17	1
10590	Methoxychlor	72-43-5	6.8	U	6.8	1.7	1
10590	Mirex	2385-85-5	1.7	U	1.7	0.36	1
10590	Toxaphene	8001-35-2	34	U	34	14	1

*=This limit was used in the evaluation of the final result

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Analysis Report

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Sample Description: SL-538-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7305596
LL Group # 1439273
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/06/2013 14:05

Submitted: 12/07/2013 10:50
Reported: 12/31/2013 14:30

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

-538- SDG#: PH141-06

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.1	U	5.1	2.0	1
12952	EFH (C15-C20)	n.a.	2.2	J	5.1	2.0	1
12952	EFH (C21-C30)	n.a.	11		5.1	2.0	1
12952	EFH (C30-C40)	n.a.	19		10	4.1	1
12952	EFH (C8-C11)	n.a.	5.1	U	5.1	2.0	1
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	1.6		0.10	0.10	1

Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

*=This limit was used in the evaluation of the final result

Sample Description: SL-538-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7305596
LL Group # 1439273
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/06/2013 14:05

Submitted: 12/07/2013 10:50
Reported: 12/31/2013 14:30

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

-538- SDG#: PH141-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.972 U	0.972	0.0611	1
11031	12378-PeCDD	40321-76-4	0.0529 JBQ	4.86	0.0382	1
11031	123478-HxCDD	39227-28-6	0.0417 JBQ	4.86	0.0311	1
11031	123678-HxCDD	57653-85-7	0.102 JBQ	4.86	0.0321	1
11031	123789-HxCDD	19408-74-3	0.0911 JB	4.86	0.0305	1
11031	1234678-HpCDD	35822-46-9	0.929 JB	4.86	0.0434	1
11031	OCDD	3268-87-9	6.81 JB	9.72	0.0394	1
11031	2378-TCDF	51207-31-9	0.972 U	0.972	0.0625	1
11031	12378-PeCDF	57117-41-6	0.107 JBQ	4.86	0.0277	1
11031	23478-PeCDF	57117-31-4	0.149 JBQ	4.86	0.0274	1
11031	123478-HxCDF	70648-26-9	0.0688 JB	4.86	0.0354	1
11031	123678-HxCDF	57117-44-9	0.0572 JB	4.86	0.0334	1
11031	123789-HxCDF	72918-21-9	0.102 JBQ	4.86	0.0366	1
11031	234678-HxCDF	60851-34-5	0.0814 JBQ	4.86	0.0326	1
11031	1234678-HpCDF	67562-39-4	0.270 JB	4.86	0.0212	1
11031	1234789-HpCDF	55673-89-7	0.0407 JBQ	4.86	0.0284	1
11031	OCDF	39001-02-0	0.626 JB	9.72	0.0629	1
D/F Toxic Equivalents	**EPA 1613B**		ng/kg	ng/kg	ng/kg	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.0360			1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	68	25 - 164
13C12-12378-PeCDD	70	25 - 181
13C12-123478-HxCDD	84	32 - 141
13C12-123678-HxCDD	85	28 - 130
13C12-123789-HxCDD	83	28 - 130
13C12-1234678-HpCDD	68	23 - 140
13C12-OCDD	56	17 - 157
13C12-2378-TCDF	62	24 - 169
13C12-12378-PeCDF	67	24 - 185
13C12-23478-PeCDF	65	21 - 178
13C12-123478-HxCDF	75	26 - 152
13C12-123678-HxCDF	79	26 - 123
13C12-234678-HxCDF	80	28 - 136
13C12-123789-HxCDF	78	29 - 147
13C12-1234678-HpCDF	74	28 - 143
13C12-1234789-HpCDF	59	26 - 138
13C12-OCDF	50	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column

*=This limit was used in the evaluation of the final result

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Environmental

Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: SL-538-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7305596
LL Group # 1439273
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/06/2013 14:05

Submitted: 12/07/2013 10:50
Reported: 12/31/2013 14:30

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

-538- SDG#: PH141-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-538-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7305596
LL Group # 1439273
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/06/2013 14:05

Submitted: 12/07/2013 10:50
Reported: 12/31/2013 14:30

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

-538- SDG#: PH141-06

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13348SLG026	12/27/2013 14:23	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	13348SLG026	12/16/2013 09:50	Katheryne V Sponheimer	1
10590	20a Pesticides by EPA 8081B	SW-846 8081B	1	133470015A	12/16/2013 22:39	Jamie L Brillhart	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	133470015A	12/13/2013 17:50	Sally L Appleyard	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	133450021A	12/13/2013 00:30	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	133450021A	12/12/2013 03:00	Sherry L Morrow	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13347003	12/17/2013 10:34	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13347003	12/13/2013 11:30	Chin F Ly	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13347162401A	12/13/2013 22:59	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-556-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7305597
LL Group # 1439273
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/06/2013 14:00

Submitted: 12/07/2013 10:50
Reported: 12/31/2013 14:30

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

-556- SDG#: PH141-07

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Herbicides	**SW-846 8151A**		**ug/kg**		**ug/kg**	**ug/kg**	
10401	2,4-D	94-75-7	37	U	37	12	1
10401	Dalapon	75-99-0	92	U	92	53	1
10401	2,4-DB	94-82-6	26	U	26	26	1
10401	Dicamba	1918-00-9	12	U	12	4.1	1
10401	Dinoseb	88-85-7	25	U	25	9.2	1
	The QC window for dinoseb is advisory due to the erratic performance of the analyte using this method.						
10401	2,4-DP (Dichlorprop)	120-36-5	17	U	17	9.2	1
10401	MCPA	94-74-6	2,600	U	2,600	780	1
10401	MCPP (Mecoprop)	93-65-2	2,600	U	2,600	770	1
10401	2,4,5-T	93-76-5	2.0		1.7	0.84	1
10401	2,4,5-TP	93-72-1	0.97	J	1.7	0.77	1
	Reporting limits were raised due to interference from the sample matrix.						
Pesticides/PCBs	**SW-846 8081B**		**ug/kg**		**ug/kg**	**ug/kg**	
10590	Aldrin	309-00-2	0.86	U	0.86	0.18	1
10590	Alpha BHC	319-84-6	0.86	U	0.86	0.18	1
10590	Beta BHC	319-85-7	2.0	U	2.0	0.99	1
10590	Gamma BHC - Lindane	58-89-9	0.86	U	0.86	0.18	1
10590	Chlordane	57-74-9	18	U	18	4.1	1
10590	p,p-DDD	72-54-8	1.8	U	1.8	0.34	1
10590	p,p-DDE	72-55-9	2.7		1.8	0.34	1
10590	p,p-DDT	50-29-3	2.6		1.8	0.36	1
10590	Delta BHC	319-86-8	0.86	U	0.86	0.47	1
10590	Dieldrin	60-57-1	1.8	U	1.8	0.34	1
10590	Endosulfan I	959-98-8	0.86	U	0.86	0.23	1
10590	Endosulfan II	33213-65-9	1.8	U	1.8	0.34	1
10590	Endosulfan Sulfate	1031-07-8	1.8	U	1.8	0.34	1
10590	Endrin	72-20-8	1.8	U	1.8	0.34	1
10590	Endrin Aldehyde	7421-93-4	0.40	J	1.8	0.34	1
10590	Endrin Ketone	53494-70-5	1.9	U	1.9	0.62	1
10590	Heptachlor	76-44-8	0.86	U	0.86	0.18	1
10590	Heptachlor Epoxide	1024-57-3	0.86	U	0.86	0.18	1
10590	Methoxychlor	72-43-5	6.9	U	6.9	1.8	1
10590	Mirex	2385-85-5	1.8	U	1.8	0.36	1
10590	Toxaphene	8001-35-2	34	U	34	14	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	26	U	26	10	5
12952	EFH (C15-C20)	n.a.	28		26	10	5
12952	EFH (C21-C30)	n.a.	180		26	10	5
12952	EFH (C30-C40)	n.a.	490		52	21	5
12952	EFH (C8-C11)	n.a.	26	U	26	10	5
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	3.4		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

*=This limit was used in the evaluation of the final result

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Lancaster Laboratories Environmental
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Analysis Report

Sample Description: SL-556-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7305597
LL Group # 1439273
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/06/2013 14:00

Submitted: 12/07/2013 10:50
Reported: 12/31/2013 14:30

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

-556- SDG#: PH141-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10401	21a Herbicides by EPA 8151A	SW-846 8151A	1	133450034A	12/15/2013 22:36	Melissa McDermott	1
10590	20a Pesticides by EPA 8081B	SW-846 8081B	1	133470015A	12/16/2013 22:54	Jamie L Brillhart	1
10590	20a Pesticides by EPA 8081B	SW-846 8081B	1	133470015A	12/17/2013 12:47	Jamie L Brillhart	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	133470015A	12/13/2013 17:50	Sally L Appleyard	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	133450034A	12/12/2013 06:45	Kerrie A Freeburn	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	133450021A	12/13/2013 20:12	Heather E Williams	5
12959	EFH soil ext.(microwave)	SW-846 3546	1	133450021A	12/12/2013 03:00	Sherry L Morrow	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13347162401A	12/13/2013 22:59	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-556-NBZ-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7305598
LL Group # 1439273
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/06/2013 14:30

Submitted: 12/07/2013 10:50
Reported: 12/31/2013 14:30

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

556-4 SDG#: PH141-08

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	1.0	U	1.0	0.2	25.1
Herbicides	**SW-846 8151A**		**ug/kg**		**ug/kg**	**ug/kg**	
10401	2,4-D	94-75-7	37	U	37	12	1
10401	Dalapon	75-99-0	100	U	100	100	1
10401	2,4-DB	94-82-6	17	U	17	12	1
10401	Dicamba	1918-00-9	12	U	12	4.1	1
10401	Dinoseb	88-85-7	25	U	25	9.2	1
	The QC window for dinoseb is advisory due to the erratic performance of the analyte using this method.						
10401	2,4-DP (Dichlorprop)	120-36-5	17	U	17	9.2	1
10401	MCPA	94-74-6	2,600	U	2,600	780	1
10401	MCPP (Mecoprop)	93-65-2	2,600	U	2,600	770	1
10401	2,4,5-T	93-76-5	1.7	U	1.7	0.84	1
10401	2,4,5-TP	93-72-1	1.7	U	1.7	0.77	1
	Reporting limits were raised due to interference from the sample matrix.						
Pesticides/PCBs	**SW-846 8081B**		**ug/kg**		**ug/kg**	**ug/kg**	
10590	Aldrin	309-00-2	0.86	U	0.86	0.18	1
10590	Alpha BHC	319-84-6	0.86	U	0.86	0.18	1
10590	Beta BHC	319-85-7	2.0	U	2.0	1.0	1
10590	Gamma BHC - Lindane	58-89-9	0.86	U	0.86	0.18	1
10590	Chlordane	57-74-9	18	U	18	4.1	1
10590	p,p-DDD	72-54-8	1.8	U	1.8	0.34	1
10590	p,p-DDE	72-55-9	1.8	U	1.8	0.34	1
10590	p,p-DDT	50-29-3	1.8	U	1.8	0.36	1
10590	Delta BHC	319-86-8	0.86	U	0.86	0.47	1
10590	Dieldrin	60-57-1	1.8	U	1.8	0.34	1
10590	Endosulfan I	959-98-8	0.86	U	0.86	0.23	1
10590	Endosulfan II	33213-65-9	1.8	U	1.8	0.34	1
10590	Endosulfan Sulfate	1031-07-8	1.8	U	1.8	0.34	1
10590	Endrin	72-20-8	1.8	U	1.8	0.34	1
10590	Endrin Aldehyde	7421-93-4	1.8	U	1.8	0.34	1
10590	Endrin Ketone	53494-70-5	1.9	U	1.9	0.62	1
10590	Heptachlor	76-44-8	0.86	U	0.86	0.18	1
10590	Heptachlor Epoxide	1024-57-3	0.86	U	0.86	0.18	1
10590	Methoxychlor	72-43-5	7.0	U	7.0	1.8	1
10590	Mirex	2385-85-5	1.8	U	1.8	0.36	1
10590	Toxaphene	8001-35-2	34	U	34	15	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.2	U	5.2	2.1	1
12952	EFH (C15-C20)	n.a.	5.2		5.2	2.1	1
12952	EFH (C21-C30)	n.a.	30		5.2	2.1	1
12952	EFH (C30-C40)	n.a.	74		10	4.1	1
12952	EFH (C8-C11)	n.a.	5.2	U	5.2	2.1	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-556-NBZ-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7305598
LL Group # 1439273
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/06/2013 14:30

Submitted: 12/07/2013 10:50
Reported: 12/31/2013 14:30

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

556-4 SDG#: PH141-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Wet Chemistry	**EPA 160.3 modified**		%	%	%	
11624	14a Moisture Content by 160.3	n.a.	3.6	0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.					

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	13347A16A	12/16/2013 22:05	Marie D Beamenderfer	25.1
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201334133368	12/07/2013 14:16	Mitchell R Washel	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201334133368	12/07/2013 14:17	Mitchell R Washel	n.a.
10401	21a Herbicides by EPA 8151A	SW-846 8151A	1	133450034A	12/15/2013 23:57	Melissa McDermott	1
10590	20a Pesticides by EPA 8081B	SW-846 8081B	1	133470015A	12/16/2013 23:09	Jamie L Brillhart	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	133470015A	12/13/2013 17:50	Sally L Appleyard	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	133450034A	12/12/2013 06:45	Kerrie A Freeburn	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	133450021A	12/13/2013 03:02	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	133450021A	12/12/2013 03:00	Sherry L Morrow	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13347162401A	12/13/2013 22:59	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

eurofins
Lancaster Laboratories Environmental
2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Analysis Report

Sample Description: TB-120613 Water
SSFL Phase 3 Subarea NBZ

LL Sample # WW 7305599
LL Group # 1439273
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/06/2013 08:00

Submitted: 12/07/2013 10:50
Reported: 12/31/2013 14:30

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

TBPHA SDG#: PH141-09TB*

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC Volatiles	**TPH GRO SW-8015B**		**ug/l**		**ug/l**	**ug/l**	
08229	TPH-GRO S.CA water C5-C12	n.a.	50	U	50	20	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08229	11b TPH by EPA 8015B GRO	TPH GRO SW-8015B	1	13346A20A	12/13/2013 19:14	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	13346A20A	12/13/2013 19:14	Marie D Beamenderfer	1

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1439273
Reported: 12/31/13 at 02:30 PM

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 13348SLG026	Sample number(s): 7305591,7305596									
Acenaphthene	1.7	U	1.7	0.67	ug/kg	95		77-116		
Acenaphthylene	1.7	U	1.7	0.33	ug/kg	97		78-120		
Anthracene	1.7	U	1.7	0.33	ug/kg	100		80-116		
Benzo(a)anthracene	1.7	U	1.7	0.67	ug/kg	111		83-119		
Benzo(a)pyrene	1.7	U	1.7	0.67	ug/kg	108		80-122		
Benzo(b)fluoranthene	1.7	U	1.7	0.67	ug/kg	126		82-135		
Benzo(e)pyrene	17	U	17.	3.3	ug/kg	101		81-110		
Benzo(g,h,i)perylene	1.7	U	1.7	0.67	ug/kg	109		79-121		
Benzo(k)fluoranthene	1.7	U	1.7	0.67	ug/kg	104		79-123		
Butylbenzylphthalate	18	U	18.	6.0	ug/kg	101		77-123		
Di-n-butylphthalate	18	U	18.	6.0	ug/kg	97		78-125		
Chrysene	1.7	U	1.7	0.33	ug/kg	110		84-113		
Dibenz(a,h)anthracene	1.7	U	1.7	0.67	ug/kg	103		78-124		
Diethylphthalate	18	U	18.	6.0	ug/kg	100		77-130		
Dimethylphthalate	18	U	18.	6.0	ug/kg	103		85-122		
Bis(2-Ethylhexyl)phthalate	18	U	18.	6.0	ug/kg	101		79-121		
Fluoranthene	1.7	U	1.7	0.67	ug/kg	103		85-116		
Fluorene	1.7	U	1.7	0.67	ug/kg	100		81-126		
Indeno(1,2,3-cd)pyrene	1.7	U	1.7	0.67	ug/kg	108		77-124		
1-Methylnaphthalene	1.7	U	1.7	0.67	ug/kg	109		78-119		
2-Methylnaphthalene	1.7	U	1.7	0.67	ug/kg	109		78-121		
Naphthalene	1.7	U	1.7	0.67	ug/kg	97		79-113		
N-Nitrosodimethylamine	1.7	U	1.7	0.67	ug/kg	93		71-124		
Di-n-octylphthalate	18	U	18.	6.0	ug/kg	109		76-131		
Phenanthrene	1.7	U	1.7	0.67	ug/kg	99		72-110		
Pyrene	1.7	U	1.7	0.67	ug/kg	112		79-112		
Batch number: 13346A20A	Sample number(s): 7305599									
TPH-GRO S.CA water C5-C12	50	U	50.	20	ug/l	97	100	75-135	3	30
Batch number: 13347A16A	Sample number(s): 7305598									
11a TPH by EPA 8015B GRO	1.0	U	1.0	0.2	mg/kg	83	87	67-119	4	30
Batch number: 133450034A	Sample number(s): 7305597-7305598									
2,4-D	36	U	36.	12	ug/kg	136*		59-122		
Dalapon	90	U	90.	44	ug/kg	71		25-100		
2,4-DB	17	U	17.	6.2	ug/kg	135*		54-131		
Dicamba	12	U	12.	4.0	ug/kg	102		55-138		
Dinoseb	24	U	24.	9.0	ug/kg	13		10-56		
2,4-DP (Dichlorprop)	17	U	17.	9.0	ug/kg	153		65-158		
MCPA	2,500	U	2,500.	760	ug/kg	97		56-133		
MCPP (Mecoprop)	2,500		2,500.	750	ug/kg	96		54-134		

*- Outside of specification
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(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1439273
Reported: 12/31/13 at 02:30 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
	U									
2,4,5-T	1.7	U	1.7	0.82	ug/kg	112		58-135		
2,4,5-TP	1.7	U	1.7	0.75	ug/kg	125		63-130		
Batch number: 133470015A	Sample number(s): 7305595-7305598									
Aldrin	0.83	U	0.83	0.17	ug/kg	103		60-118		
Alpha BHC	0.83	U	0.83	0.17	ug/kg	109		62-128		
Beta BHC	1.9	U	1.9	0.96	ug/kg	107		69-121		
Gamma BHC - Lindane	0.83	U	0.83	0.17	ug/kg	114		64-130		
Chlordane	17	U	17.	4.0	ug/kg					
p,p-DDD	1.7	U	1.7	0.33	ug/kg	109		69-141		
p,p-DDE	1.7	U	1.7	0.33	ug/kg	115		69-130		
p,p-DDT	1.7	U	1.7	0.35	ug/kg	114		64-139		
Delta BHC	0.83	U	0.83	0.45	ug/kg	110		51-141		
Dieldrin	1.7	U	1.7	0.33	ug/kg	103		73-135		
Endosulfan I	0.83	U	0.83	0.22	ug/kg	87		64-130		
Endosulfan II	1.7	U	1.7	0.33	ug/kg	93		68-128		
Endosulfan Sulfate	1.7	U	1.7	0.33	ug/kg	109		71-132		
Endrin	1.7	U	1.7	0.33	ug/kg	101		70-132		
Endrin Aldehyde	1.7	U	1.7	0.33	ug/kg	97		60-120		
Endrin Ketone	1.8	U	1.8	0.60	ug/kg	103		74-127		
Heptachlor	0.83	U	0.83	0.17	ug/kg	101		62-127		
Heptachlor Epoxide	0.83	U	0.83	0.17	ug/kg	105		69-125		
Methoxychlor	6.7	U	6.7	1.7	ug/kg	107		67-136		
Mirex	1.7	U	1.7	0.35	ug/kg					
Toxaphene	33	U	33.	14	ug/kg					
Batch number: 133450021A	Sample number(s): 7305591-7305593,7305595-7305598									
EFH (C12-C14)	5.0	U	5.0	2.0	mg/kg	101		76-115		
EFH (C15-C20)	5.0	U	5.0	2.0	mg/kg	107		78-127		
EFH (C21-C30)	5.0	U	5.0	2.0	mg/kg	105		77-127		
EFH (C30-C40)	10	U	10.	4.0	mg/kg	57		44-134		
EFH (C8-C11)	5.0	U	5.0	2.0	mg/kg	83		60-115		
Batch number: 133470637001	Sample number(s): 7305591,7305594									
Aluminum	40.0	U	40.0	7.21	mg/kg	102		80-120		
Antimony	4.00	U	4.00	0.740	mg/kg	105		80-120		
Arsenic	4.00	U	4.00	0.700	mg/kg	105		80-120		
Barium	1.00	U	1.00	0.0330	mg/kg	103		80-120		
Beryllium	1.00	U	1.00	0.0670	mg/kg	103		80-120		
Boron	10.0	U	10.0	0.840	mg/kg	96		80-120		
Cadmium	1.00	U	1.00	0.0760	mg/kg	110		80-120		
Calcium	4.84	J	20.0	3.34	mg/kg	103		80-120		
Chromium	3.00	U	3.00	0.160	mg/kg	97		80-120		
Cobalt	1.00	U	1.00	0.0990	mg/kg	109		80-120		
Copper	2.00	U	2.00	0.290	mg/kg	106		80-120		
Iron	40.0	U	40.0	3.62	mg/kg	106		80-120		
Lead	3.00	U	3.00	0.500	mg/kg	112		80-120		
Lithium	4.0	U	4.0	0.34	mg/kg	105		80-120		
Magnesium	2.30	J	10.0	1.67	mg/kg	104		80-120		
Manganese	1.00	U	1.00	0.0830	mg/kg	106		80-120		
Molybdenum	2.00	U	2.00	0.170	mg/kg	103		80-120		
Nickel	2.00	U	2.00	0.130	mg/kg	114		80-120		
Phosphorus	10.0	U	10.0	2.89	mg/kg	110		80-120		
Potassium	100		100.	8.34	mg/kg	103		80-120		
	U									

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1439273
Reported: 12/31/13 at 02:30 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Sodium	100		100.	16.7	mg/kg	102		80-120		
	U									
Tin	1.63	J	10.0	0.220	mg/kg	101		80-120		
Titanium	1.00	U	1.00	0.170	mg/kg	100		80-120		
Vanadium	1.00	U	1.00	0.130	mg/kg	99		80-120		
Zinc	0.233	J	4.00	0.200	mg/kg	108		80-120		
Zirconium	5.00	U	5.00	0.840	mg/kg	98		80-120		
Batch number: 133470637001A	Sample number(s): 7305591,7305594									
Silver	0.200	U	0.200	0.0260	mg/kg	109		80-120		
Strontium	0.400	U	0.400	0.0680	mg/kg	106		80-120		
Thallium	0.200	U	0.200	0.0300	mg/kg	109		80-120		
Batch number: 133470637001B	Sample number(s): 7305591,7305594									
Selenium	0.400	U	0.400	0.100	mg/kg	114		80-120		
Batch number: 133470638001	Sample number(s): 7305591,7305594									
3a Mercury 7471A	0.0167	U	0.0167	0.0100	mg/kg	112		85-120		
Batch number: 13341039401A	Sample number(s): 7305594									
15a pH by 9045D						100		95-105		
Batch number: 13347162401A	Sample number(s): 7305591-7305598									
14a Moisture Content by 160.3						99		80-120		

Analysis Name	Blank Result		Blank MRL**	Blank EDL	Report Units	OPR %REC	OPRD %REC	OPR/OPRD Limits	RPD	RPD Max
Batch number: 13347003	Sample number(s): 7305591,7305595-7305596									
2378-TCDD	0.0842	J	1.00	0.0450	ng/kg	93		67-158		
12378-PeCDD	0.186	J	5.00	0.0305	ng/kg	95		70-142		
123478-HxCDD	0.164	J	5.00	0.0285	ng/kg	100		70-164		
123678-HxCDD	0.174	J	5.00	0.0294	ng/kg	101		76-134		
123789-HxCDD	0.220	J	5.00	0.0273	ng/kg	100		64-162		
1234678-HpCDD	0.255	J	5.00	0.0234	ng/kg	100		70-140		
OCDD	0.606	J	10.0	0.0277	ng/kg	97		78-144		
2378-TCDF	0.0670	J	1.00	0.0481	ng/kg	96		75-158		
12378-PeCDF	0.219	J	5.00	0.0214	ng/kg	99		80-134		
23478-PeCDF	0.287	J	5.00	0.0200	ng/kg	100		68-160		
123478-HxCDF	0.187	J	5.00	0.0280	ng/kg	102		72-134		
123678-HxCDF	0.183	J	5.00	0.0270	ng/kg	101		84-130		
123789-HxCDF	0.333	J	5.00	0.0260	ng/kg	102		78-130		
234678-HxCDF	0.271	J	5.00	0.0256	ng/kg	101		70-156		
1234678-HpCDF	0.219	J	5.00	0.0126	ng/kg	99		82-122		
1234789-HpCDF	0.237	J	5.00	0.0167	ng/kg	103		78-138		
OCDF	0.588	J	10.0	0.0393	ng/kg	100		63-170		
TEQ WHO 2005 - EDLx0.0	0.325				ng/kg					

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1439273
Reported: 12/31/13 at 02:30 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 13348SLG026	Sample number(s): 7305591,7305596 UNSPK: P307349								
Acenaphthene	84	90	48-127	7	30				
Acenaphthylene	84	90	49-121	7	30				
Anthracene	84	94	52-126	11	30				
Benzo(a)anthracene	90	99	44-143	10	30				
Benzo(a)pyrene	80	101	44-140	23	30				
Benzo(b)fluoranthene	99	134	26-142	29	30				
Benzo(e)pyrene	81	101	70-130	23	30				
Benzo(g,h,i)perylene	40	48	33-141	18	30				
Benzo(k)fluoranthene	94	114	54-142	20	30				
Butylbenzylphthalate	98	115	49-151	16	30				
Di-n-butylphthalate	89	98	52-147	9	30				
Chrysene	88	106	29-148	18	30				
Dibenz(a,h)anthracene	50	57	20-137	13	30				
Diethylphthalate	90	99	43-145	10	30				
Dimethylphthalate	93	104	58-129	12	30				
Bis(2-Ethylhexyl)phthalate	101	124	39-167	21	30				
Fluoranthene	84	101	40-148	18	30				
Fluorene	87	95	51-137	10	30				
Indeno(1,2,3-cd)pyrene	48	57	17-136	18	30				
1-Methylnaphthalene	100	115	50-131	14	30				
2-Methylnaphthalene	96	112	35-152	15	30				
Naphthalene	87	112	31-148	24	30				
N-Nitrosodimethylamine	82	95	48-113	15	30				
Di-n-octylphthalate	134	171*	52-162	25	30				
Phenanthrene	84	106	29-142	23	30				
Pyrene	90	111	26-143	21	30				
Batch number: 133450034A	Sample number(s): 7305597-7305598 UNSPK: P306302								
2,4-D	142	151*	42-143	6	35				
Dalapon	62	57	16-98	8	50				
2,4-DB	144	152	10-179	5	50				
Dicamba	106	115	55-133	8	50				
Dinoseb	25	28	10-52	12	35				
2,4-DP (Dichlorprop)	154	161	32-171	4	50				
MCPA	101	110	23-169	9	50				
MCPP (Mecoprop)	95	97	24-164	2	50				
2,4,5-T	124	177*	12-172	35	35				
2,4,5-TP	128	131	10-142	2	35				
Batch number: 133470015A	Sample number(s): 7305595-7305598 UNSPK: P300108								
Aldrin	104	103	16-126	1	50				
Alpha BHC	108	111	14-140	3	50				
Beta BHC	106	107	42-133	1	50				
Gamma BHC - Lindane	114	117	30-137	2	50				
p,p-DDD	111	112	43-149	1	50				
p,p-DDE	114	116	35-152	2	50				
p,p-DDT	115	116	12-193	1	50				
Delta BHC	110	112	13-153	1	50				
Dieldrin	104	106	41-153	2	50				
Endosulfan I	88	90	26-146	1	50				

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1439273
Reported: 12/31/13 at 02:30 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Endosulfan II	94	96	34-141	3	50				
Endosulfan Sulfate	111	111	10-181	0	50				
Endrin	102	104	30-152	2	50				
Endrin Aldehyde	96	98	23-138	2	50				
Endrin Ketone	103	103	30-148	0	50				
Heptachlor	101	101	16-152	0	50				
Heptachlor Epoxide	103	107	33-144	4	50				
Methoxychlor	108	109	41-161	1	50				
Batch number: 133450021A	Sample number(s): 7305591-7305593,7305595-7305598 UNSPK: P301926								
EFH (C12-C14)	0*	0*	49-123	0	20				
EFH (C15-C20)	-98 (2)	54 (2)	49-123	38*	20				
EFH (C21-C30)	-219 (2)	-79 (2)	49-123	14	20				
EFH (C30-C40)	-386 (2)	248 (2)	49-123	29*	20				
EFH (C8-C11)	0*	0*	49-123	0	20				
Batch number: 133470637001	Sample number(s): 7305591,7305594 UNSPK: P301926 BKG: P301926								
Aluminum	1409 (2)	1052 (2)	75-125	5	20	11,200	9,940	12	20
Antimony	63*	62*	75-125	1	20	3.92 U	3.92 U	0 (1)	20
Arsenic	104	98	75-125	4	20	3.00 J	2.85 J	5 (1)	20
Barium	104	101	75-125	2	20	66.1	63.8	4	20
Beryllium	104	102	75-125	2	20	0.441 J	0.393 J	12 (1)	20
Boron	97	95	75-125	1	20	4.43 J	4.34 J	2 (1)	20
Cadmium	102	98	75-125	3	20	0.414 J	0.389 J	6 (1)	20
Calcium	252 (2)	220 (2)	75-125	2	20	4,690	4,740	1	20
Chromium	101	92	75-125	5	20	15.5	15.0	3	20
Cobalt	100	97	75-125	3	20	4.44	4.03	10 (1)	20
Copper	100	97	75-125	2	20	4.45	4.03	10 (1)	20
Iron	1112 (2)	38 (2)	75-125	6	20	17,100	15,900	7	20
Lead	104	94	75-125	5	20	13.7	12.4	10 (1)	20
Lithium	105	101	75-125	3	20	21.0	19.2	9 (1)	20
Magnesium	233 (2)	129 (2)	75-125	5	20	3,920	3,720	5	20
Manganese	141 (2)	114 (2)	75-125	4	20	262	240	8	20
Molybdenum	95	93	75-125	2	20	0.924 J	0.381 J	83* (1)	20
Nickel	103	99	75-125	3	20	9.93	9.06	9 (1)	20
Phosphorus	85 (2)	56 (2)	75-125	6	20	399	358	11	20
Potassium	124	109	75-125	3	20	3,230	3,040	6	20
Sodium	100	97	75-125	3	20	72.5 J	68.1 J	6 (1)	20
Tin	89	87	75-125	2	20	2.63 J	2.73 J	4 (1)	20
Titanium	293 (2)	271 (2)	75-125	2	20	934	817	13	20
Vanadium	103	97	75-125	4	20	28.8	26.5	9	20
Zinc	106	100	75-125	3	20	52.9	49.8	6	20
Zirconium	90	87	75-125	3	20	1.54 J	1.46 J	5 (1)	20
Batch number: 133470637001A	Sample number(s): 7305591,7305594 UNSPK: P301926 BKG: P301926								
Silver	105	102	75-125	2	20	0.186 J	0.204	9 (1)	20
Strontium	124	196*	75-125	16	20	23.4	24.1	3	20
Thallium	97	98	75-125	1	20	0.197	0.188 J	4 (1)	20

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1439273
Reported: 12/31/13 at 02:30 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 133470637001B	Sample number(s): 7305591,7305594 UNSPK: P301926 BKG: P301926								
Selenium	104	110	75-125	5	20	0.188 J	0.188 J	0 (1)	20
Batch number: 133470638001	Sample number(s): 7305591,7305594 UNSPK: P301926 BKG: P301926								
3a Mercury 7471A	95	112	65-135	8	20	0.169	0.151	11	20
Batch number: 13341039401A	Sample number(s): 7305594 BKG: 7305594								
15a pH by 9045D						6.98	6.97	0	3
Batch number: 13347162401A	Sample number(s): 7305591-7305598 BKG: P306302								
14a Moisture Content by 160.3						2.6	2.5	4	20
Batch number: 13347003	Sample number(s): 7305591,7305595-7305596 UNSPK: P301926								
2378-TCDD	87	89	40-135	1	20				
12378-PeCDD	93	95	40-135	1	20				
123478-HxCDD	98	100	40-135	1	20				
123678-HxCDD	99	98	40-135	2	20				
123789-HxCDD	99	97	40-135	3	20				
1234678-HpCDD	91	90	40-135	2	20				
OCDD	76	58	40-135	14	20				
2378-TCDF	92	92	40-135	1	20				
12378-PeCDF	98	99	40-135	0	20				
23478-PeCDF	101	99	40-135	3	20				
123478-HxCDF	101	101	40-135	1	20				
123678-HxCDF	102	101	40-135	2	20				
123789-HxCDF	101	103	40-135	1	20				
234678-HxCDF	99	101	40-135	0	20				
1234678-HpCDF	99	99	40-135	1	20				
1234789-HpCDF	101	102	40-135	0	20				
OCDF	97	96	40-135	2	20				

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 7a SVOC SIM EPA 8270D
Batch number: 13348SLG026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
7305591	84	86	104
7305596	87	89	104
Blank	82	88	101
LCS	84	86	101
MS	74	68	93
MSD	81	81	102

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1439273
Reported: 12/31/13 at 02:30 PM

Surrogate Quality Control

Limits: 54-129 59-125 61-125

Analysis Name: 11b TPH by EPA 8015B GRO
Batch number: 13346A20A

	Trifluorotoluene-F
7305599	75
Blank	81
LCS	86
LCSD	88
Limits:	63-135

Analysis Name: 11a TPH by EPA 8015B GRO
Batch number: 13347A16A

	Trifluorotoluene-F
7305598	85
Blank	90
LCS	96
LCSD	99
Limits:	50-142

Analysis Name: 21a Herbicides by EPA 8151A
Batch number: 133450034A

	2,4-Dichlorophenylacetic acid
7305597	95
7305598	88
Blank	82
LCS	98
MS	99
MSD	105
Limits:	50-150

Analysis Name: 20a Pesticides by EPA 8081B
Batch number: 133470015A

	Tetrachloro-m-xylene	Decachlorobiphenyl
7305595	85	93
7305596	87	102
7305597	80	102
7305598	97	98
Blank	100	111
LCS	109	120
MS	101	115
MSD	107	116
Limits:	50-130	20-120

Analysis Name: 10a TPH by EPA 8015B (DRO)
Batch number: 133450021A

	Chlorobenzene	Orthoterphenyl

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1439273
Reported: 12/31/13 at 02:30 PM

Surrogate Quality Control

7305591	105	109
7305592	102	96
7305593	98	98
7305595	99	104
7305596	100	98
7305597	101	105
7305598	98	89
Blank	105	100
LCS	97	96
MS	103	111
MSD	105	109
Limits:	37-125	66-123

Analysis Name: 23a Dioxin/Furan by EPA 1613B
Batch number: 13347003

	13C12-2378-TCDD	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF	13C12-234678-HxCDF	13C12-123789-HxCDF
7305591	65	63	74	77	77	82
7305595	72	69	78	80	82	86
7305596	68	65	75	79	80	78
Blank	74	75	84	87	88	96
MS	82	73	80	82	86	99
MSD	77	70	79	79	82	81
OPR	68	68	75	79	81	84
Limits:	25-164	21-178	26-152	26-123	28-136	29-147

	13C12-1234678-HpCDF	13C12-1234789-HpCDF	13C12-OCDF	13C12-12378-PeCDD	13C12-123478-HxCDD	13C12-123678-HxCDD
7305591	75	63	52	65	82	80
7305595	77	65	56	73	86	85
7305596	74	59	50	70	84	85
Blank	85	69	60	78	91	92
MS	80	69	62	75	88	88
MSD	73	62	55	72	83	84
OPR	80	62	54	71	83	82
Limits:	28-143	26-138	17-157	25-181	32-141	28-130

	13C12-123789-HxCDD	13C12-1234678-HpCDD	13C12-OCDD	13C12-2378-TCDF	13C12-12378-PeCDF
7305591	80	70	57	59	64
7305595	86	73	61	66	70
7305596	83	68	56	62	67
Blank	89	77	66	69	75
MS	87	76	66	73	75
MSD	83	68	58	72	71
OPR	82	71	61	60	70
Limits:	28-130	23-140	17-157	24-169	24-185

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 12/6/2013 A-13013
CarrierName: FedEx G-1439273
AirbillNo: 797337756282 S-7305591-99

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20131206-01
Cooler #: 1
Lab: Lancaster
Lab Phone: 717-556-7259
Lab Address 2425 New Holland Pike
Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Total Nitrogen ASTM D5373	TOC ASTM D5310	Grain Size ASTM 2488-09a	Other Analysis/Notes
SL-512-NBZ-SB-0.0-0.5	12/6/13 09:25	SO	None	2 - SS-Sleeve	10 day	X	X					X		X												X														
SL-534-NBZ-SB-0.0-0.5	12/6/13 09:10	SO	None	1 - SS-Sleeve	10 day																					X														
SL-535-NBZ-SB-0.0-0.5	12/6/13 10:10	SO	None	1 - SS-Sleeve	10 day																					X														
SL-501-NBZ-SB-0.0-0.5	12/6/13 12:50	SO	None	1 - SS-Sleeve	10 day	X	X																																	
SL-501-NBZ-SB-0.0-0.5	12/6/13 12:50	SO	None	1 - 4 oz glass	10 day													X																						
SL-537-NBZ-SB-0.0-0.5	12/6/13 12:55	SO	None	1 - SS-Sleeve	10 day									X								X				X														
SL-538-NBZ-SB-0.0-0.5	12/6/13 14:05	SO	None	2 - SS-Sleeve	10 day							X		X								X				X														
SL-556-NBZ-SB-0.0-0.5	12/6/13 14:00	SO	None	1 - SS-Sleeve	10 day																X	X				X														
SL-556-NBZ-SB-4.0-5.0	12/6/13 14:30	SO	None	1 - SS-Sleeve	10 day																X	X				X														
SL-556-NBZ-SB-4.0-5.0	12/6/13 14:30	SO	None	2 - Encore	10 day																				X															
TB-120613	12/6/13 08:00	WQ	HCl	3 - 40 mL Vial	10 day																				X															

Special Instructions:

Sampler:

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
[illegible]	12/06/2013	1600									
									[illegible]	12/7/13	1050

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G-1439273

Environmental Sample Administration
Receipt Documentation Log

Client/Project: DM Smith

Date of Receipt: 12/7/13

Time of Receipt: 1050

Source Code: 50

Shipping Container Sealed: YES NO

Custody Seal Present * : YES NO

* Custody seal was intact unless otherwise noted in the discrepancy section

Package: Chilled Not Chilled

Temperature of Shipping Containers							
Cooler #	Thermometer ID	Temperature (°C)	Temp Bottle (TB) or Surface Temp (ST)	Wet Ice (WI) or Dry Ice (DI) or Ice Packs (IP)	Ice Present? Y/N	Loose (L) Bagged Ice (B) or NA	Comments
1	D131	1.1	TB	WI	Y	B	
2							
3							
4							
5							
6							

Number of Trip Blanks received NOT listed on chain of custody: Ø

Paperwork Discrepancy/Unpacking Problems:

Unpacker Signature/Emp#: 5200 **Date/Time:** 12/7/13 1145

Issued by Dept. 6042 Management

2174.06

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Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	**BMQL**	Below Minimum Quantitation Level
N.D.	none detected	**MPN**	Most Probable Number
TNTC	Too Numerous To Count	**CP Units**	cobalt-chloroplatinate units
IU	International Units	**NTU**	nephelometric turbidity units
umhos/cm	micromhos/cm	**ng**	nanogram(s)
C	degrees Celsius	**F**	degrees Fahrenheit
meq	milliequivalents	**lb.**	pound(s)
g	gram(s)	**kg**	kilogram(s)
µg	microgram(s)	**mg**	milligram(s)
mL	milliliter(s)	**L**	liter(s)
m3	cubic meter(s)	**µL**	microliter(s)
		pg/L	picogram/liter

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Data Qualifiers:

C – result confirmed by reanalysis.

J - estimated value – The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
C	Pesticide result confirmed by GC/MS
D	Compound quantitated on a diluted sample
E	Concentration exceeds the calibration range of the instrument
N	Presumptive evidence of a compound (TICs only)
P	Concentration difference between primary and confirmation columns >25%
U	Compound was not detected
X,Y,Z	Defined in case narrative

Inorganic Qualifiers

B	Value is <CRDL, but ≥IDL
E	Estimated due to interference
M	Duplicate injection precision not met
N	Spike sample not within control limits
S	Method of standard additions (MSA) used for calculation
U	Compound was not detected
W	Post digestion spike out of control limits
*****	Duplicate analysis not within control limits
+	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as “analyze immediately” are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

December 31, 2013

Project: SSFL Phase 3 Sampling

Submittal Date: 12/10/2013
Group Number: 1439666
SDG: PH142
PO Number: 1204-002-001-AL
State of Sample Origin: CA

Client Sample Description	Lancaster Labs (LL) #
TB-120913 Water	7307341
SL-514-NBZ-SB-0.0-0.5 Soil	7307342
SL-515-NBZ-SB-0.0-0.5 Soil	7307343
SL-516-NBZ-SB-0.0-0.5 Soil	7307344
SL-516-NBZ-SB-4.0-5.0 Soil	7307345
SL-513-NBZ-SB-0.0-0.5 Soil	7307346
SL-522-NBZ-SB-0.0-0.5 Soil	7307347
SL-523-NBZ-SB-0.0-0.5 Soil	7307348
SL-524-NBZ-SB-0.0-0.5 Soil	7307349
SL-524-NBZ-SB-0.0-0.5MS Soil	7307350
SL-524-NBZ-SB-0.0-0.5MSD Soil	7307351
SL-524-NBZ-SB-0.0-0.5DUP Soil	7307352
SL-824-NBZ-SB-0.0-0.5 Soil	7307353
SL-522-NBZ-SB-2.5-3.5 Soil	7307354

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO Eurofins Lancaster Labs Env Attn: Nicole Maljovec

Respectfully Submitted,

Nicole L. Maljovec
Principal Specialist Group Leader

(717) 556-7259

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Lancaster Laboratories Environmental
2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Analysis Report

Sample Description: TB-120913 Water
SSFL Phase 3 Subarea 8

LL Sample # WW 7307341
LL Group # 1439666
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/09/2013 08:00

Submitted: 12/10/2013 11:35
Reported: 12/31/2013 14:32

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

TBD9- SDG#: PH142-01TB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC Volatiles	**TPH GRO SW-8015B**		**ug/l**		**ug/l**	**ug/l**	
08229	TPH-GRO S.CA water C5-C12	n.a.	50	U	50	20	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08229	11b TPH by EPA 8015B GRO	TPH GRO SW-8015B	1	13346A20A	12/13/2013 19:36	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	13346A20A	12/13/2013 19:36	Marie D Beamenderfer	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-514-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7307342
LL Group # 1439666
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/09/2013 12:00 by EL

Submitted: 12/10/2013 11:35
Reported: 12/31/2013 14:32

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51400 SDG#: PH142-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs	**SW-846 8081B**		**ug/kg**		**ug/kg**	**ug/kg**	
10590	Aldrin	309-00-2	0.90	U	0.90	0.18	1
10590	Alpha BHC	319-84-6	0.90	U	0.90	0.18	1
10590	Beta BHC	319-85-7	2.1	U	2.1	1.0	1
10590	Gamma BHC - Lindane	58-89-9	0.90	U	0.90	0.22	1
10590	Chlordane	57-74-9	18	U	18	4.3	1
10590	p,p-DDD	72-54-8	1.8	U	1.8	0.36	1
10590	p,p-DDE	72-55-9	0.85	J	1.8	0.36	1
10590	p,p-DDT	50-29-3	0.61	J	1.8	0.38	1
10590	Delta BHC	319-86-8	0.90	U	0.90	0.49	1
10590	Dieldrin	60-57-1	1.8	U	1.8	0.36	1
10590	Endosulfan I	959-98-8	0.42	J	0.90	0.24	1
10590	Endosulfan II	33213-65-9	1.8	U	1.8	0.36	1
10590	Endosulfan Sulfate	1031-07-8	1.8	U	1.8	0.36	1
10590	Endrin	72-20-8	1.8	U	1.8	0.36	1
10590	Endrin Aldehyde	7421-93-4	0.50	J	1.8	0.36	1
10590	Endrin Ketone	53494-70-5	2.0	U	2.0	0.65	1
10590	Heptachlor	76-44-8	0.90	U	0.90	0.18	1
10590	Heptachlor Epoxide	1024-57-3	0.90	U	0.90	0.18	1
10590	Methoxychlor	72-43-5	7.3	U	7.3	1.8	1
10590	Mirex	2385-85-5	1.8	U	1.8	0.38	1
10590	Toxaphene	8001-35-2	36	U	36	15	1
	Reporting limits were raised due to interference from the sample matrix.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	8.0		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10590	20a Pesticides by EPA 8081B	SW-846 8081B	1	133470015A	12/17/2013 00:41	Jamie L Brillhart	1
10590	20a Pesticides by EPA 8081B	SW-846 8081B	1	133470015A	12/17/2013 13:02	Jamie L Brillhart	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	133470015A	12/13/2013 17:50	Sally L Appleyard	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13351162401A	12/17/2013 23:21	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-515-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7307343
LL Group # 1439666
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/09/2013 13:00 by EL

Submitted: 12/10/2013 11:35
Reported: 12/31/2013 14:32

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51500 SDG#: PH142-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs	**SW-846 8081B**		**ug/kg**		**ug/kg**	**ug/kg**	
10590	Aldrin	309-00-2	0.91	U	0.91	0.19	1
10590	Alpha BHC	319-84-6	0.91	U	0.91	0.19	1
10590	Beta BHC	319-85-7	2.1	U	2.1	1.1	1
10590	Gamma BHC - Lindane	58-89-9	0.91	U	0.91	0.19	1
10590	Chlordane	57-74-9	19	U	19	4.4	1
10590	p,p-DDD	72-54-8	1.9	U	1.9	0.36	1
10590	p,p-DDE	72-55-9	1.0	J	1.9	0.36	1
10590	p,p-DDT	50-29-3	1.2	J	1.9	0.39	1
10590	Delta BHC	319-86-8	0.91	U	0.91	0.50	1
10590	Dieldrin	60-57-1	1.9	U	1.9	0.36	1
10590	Endosulfan I	959-98-8	0.91	U	0.91	0.24	1
10590	Endosulfan II	33213-65-9	1.9	U	1.9	0.36	1
10590	Endosulfan Sulfate	1031-07-8	1.9	U	1.9	0.36	1
10590	Endrin	72-20-8	1.9	U	1.9	0.61	1
10590	Endrin Aldehyde	7421-93-4	1.9	U	1.9	0.36	1
10590	Endrin Ketone	53494-70-5	2.0	U	2.0	0.66	1
10590	Heptachlor	76-44-8	0.91	U	0.91	0.19	1
10590	Heptachlor Epoxide	1024-57-3	0.91	U	0.91	0.19	1
10590	Methoxychlor	72-43-5	7.4	U	7.4	1.9	1
10590	Mirex	2385-85-5	1.9	U	1.9	0.39	1
10590	Toxaphene	8001-35-2	36	U	36	15	1
	Reporting limits were raised due to interference from the sample matrix.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	9.2		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10590	20a Pesticides by EPA 8081B	SW-846 8081B	1	133470015A	12/17/2013 00:56	Jamie L Brillhart	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	133470015A	12/13/2013 17:50	Sally L Appleyard	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13351162401A	12/17/2013 23:21	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-516-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7307344
LL Group # 1439666
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/09/2013 10:30 by EL

Submitted: 12/10/2013 11:35
Reported: 12/31/2013 14:32

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51600 SDG#: PH142-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.8	U	1.8	0.71	1
12969	Acenaphthylene	208-96-8	1.8	U	1.8	0.35	1
12969	Anthracene	120-12-7	1.8	U	1.8	0.35	1
12969	Benzo(a)anthracene	56-55-3	1.1	J	1.8	0.71	1
12969	Benzo(a)pyrene	50-32-8	1.2	J	1.8	0.71	1
12969	Benzo(b)fluoranthene	205-99-2	3.3		1.8	0.71	1
12969	Benzo(e)pyrene	192-97-2	18	U	18	3.5	1
12969	Benzo(g,h,i)perylene	191-24-2	1.0	J	1.8	0.71	1
12969	Benzo(k)fluoranthene	207-08-9	1.0	J	1.8	0.71	1
12969	Butylbenzylphthalate	85-68-7	19	U	19	6.3	1
12969	Di-n-butylphthalate	84-74-2	19	U	19	6.3	1
12969	Chrysene	218-01-9	2.8		1.8	0.35	1
12969	Dibenz(a,h)anthracene	53-70-3	1.8	U	1.8	0.71	1
12969	Diethylphthalate	84-66-2	19	U	19	6.3	1
12969	Dimethylphthalate	131-11-3	19	U	19	6.3	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	19	U	19	6.3	1
12969	Fluoranthene	206-44-0	2.3		1.8	0.71	1
12969	Fluorene	86-73-7	1.8	U	1.8	0.71	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	0.82	J	1.8	0.71	1
12969	1-Methylnaphthalene	90-12-0	1.1	J	1.8	0.71	1
12969	2-Methylnaphthalene	91-57-6	1.1	J	1.8	0.71	1
12969	Naphthalene	91-20-3	2.4		1.8	0.71	1
12969	N-Nitrosodimethylamine	62-75-9	1.8	U	1.8	0.71	1
12969	Di-n-octylphthalate	117-84-0	19	U	19	6.3	1
12969	Phenanthrene	85-01-8	1.7	J	1.8	0.71	1
12969	Pyrene	129-00-0	2.4		1.8	0.71	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.3	U	5.3	2.1	1
12952	EFH (C15-C20)	n.a.	5.3	U	5.3	2.1	1
12952	EFH (C21-C30)	n.a.	14		5.3	2.1	1
12952	EFH (C30-C40)	n.a.	21		11	4.2	1
12952	EFH (C8-C11)	n.a.	5.3	U	5.3	2.1	1
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	15,700		41.5	7.48	1
06944	Antimony	7440-36-0	4.15	U	4.15	0.768	1
06935	Arsenic	7440-38-2	4.19		4.15	0.726	1
06946	Barium	7440-39-3	90.6		1.04	0.0342	1
06947	Beryllium	7440-41-7	0.658	J	1.04	0.0695	1
07914	Boron	7440-42-8	2.00	J	10.4	0.871	1
06949	Cadmium	7440-43-9	0.430	J	1.04	0.0788	1
01650	Calcium	7440-70-2	3,780		20.7	3.46	1
06951	Chromium	7440-47-3	20.6		3.11	0.166	1
06952	Cobalt	7440-48-4	6.89		1.04	0.103	1
06953	Copper	7440-50-8	6.04		2.07	0.301	1
01654	Iron	7439-89-6	23,500		41.5	3.75	1
06955	Lead	7439-92-1	11.8		3.11	0.519	1
01656	Lithium	7439-93-2	29.5		4.1	0.35	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-516-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7307344
LL Group # 1439666
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/09/2013 10:30 by EL

Submitted: 12/10/2013 11:35
Reported: 12/31/2013 14:32

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51600 SDG#: PH142-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01657	Magnesium	7439-95-4	5,340		10.4	1.73	1
06958	Manganese	7439-96-5	348		1.04	0.0861	1
06960	Molybdenum	7439-98-7	2.07	U	2.07	0.176	1
06961	Nickel	7440-02-0	12.9		2.07	0.135	1
10145	Phosphorus	7723-14-0	565		10.4	3.00	1
01662	Potassium	7440-09-7	4,550		104	8.65	1
01667	Sodium	7440-23-5	71.7	J	104	17.3	1
06969	Tin	7440-31-5	3.17	J	10.4	0.228	1
06970	Titanium	7440-32-6	1,170		1.04	0.176	1
06971	Vanadium	7440-62-2	37.8		1.04	0.135	1
06972	Zinc	7440-66-6	69.8		4.15	0.207	1
10146	Zirconium	7440-67-7	2.35	J	5.19	0.871	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.184	J	0.415	0.104	2
06142	Silver	7440-22-4	0.0598	J	0.207	0.0270	2
06144	Strontium	7440-24-6	18.9		0.415	0.0705	2
06145	Thallium	7440-28-0	0.297		0.207	0.0311	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0162	J	0.0176	0.0105	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045D	n.a.	6.87		0.0100	0.0100	1
	The pH was measured in water at 19.6 C.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	6.4		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

*=This limit was used in the evaluation of the final result

Sample Description: SL-516-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7307344
LL Group # 1439666
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/09/2013 10:30 by EL

Submitted: 12/10/2013 11:35
Reported: 12/31/2013 14:32

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51600 SDG#: PH142-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	1.03	U	1.03	0.0924	1
11031	12378-PeCDD	40321-76-4	5.15	U	5.15	0.0589	1
11031	123478-HxCDD	39227-28-6	5.15	U	5.15	0.0405	1
11031	123678-HxCDD	57653-85-7	0.144	J	5.15	0.0420	1
11031	123789-HxCDD	19408-74-3	0.140	JQ	5.15	0.0394	1
11031	1234678-HpCDD	35822-46-9	1.52	JB	5.15	0.0422	1
11031	OCDD	3268-87-9	10.3	B	10.3	0.0236	1
11031	2378-TCDF	51207-31-9	0.115	JQ	1.03	0.0896	1
11031	12378-PeCDF	57117-41-6	0.231	JBQ	5.15	0.0381	1
11031	23478-PeCDF	57117-31-4	0.300	JQ	5.15	0.0343	1
11031	123478-HxCDF	70648-26-9	0.156	JBQ	5.15	0.0353	1
11031	123678-HxCDF	57117-44-9	0.101	JB	5.15	0.0339	1
11031	123789-HxCDF	72918-21-9	0.129	JB	5.15	0.0402	1
11031	234678-HxCDF	60851-34-5	0.153	J	5.15	0.0355	1
11031	1234678-HpCDF	67562-39-4	0.411	JB	5.15	0.0239	1
11031	1234789-HpCDF	55673-89-7	0.0540	JBQ	5.15	0.0295	1
11031	OCDF	39001-02-0	0.775	JB	10.3	0.0434	1
D/F Toxic Equivalents	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.0752				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	55	25 - 164
13C12-12378-PeCDD	60	25 - 181
13C12-123478-HxCDD	74	32 - 141
13C12-123678-HxCDD	74	28 - 130
13C12-123789-HxCDD	74	28 - 130
13C12-1234678-HpCDD	79	23 - 140
13C12-OCDD	90	17 - 157
13C12-2378-TCDF	53	24 - 169
13C12-12378-PeCDF	58	24 - 185
13C12-23478-PeCDF	59	21 - 178
13C12-123478-HxCDF	71	26 - 152
13C12-123678-HxCDF	72	26 - 123
13C12-234678-HxCDF	70	28 - 136
13C12-123789-HxCDF	70	29 - 147
13C12-1234678-HpCDF	83	28 - 143
13C12-1234789-HpCDF	75	26 - 138
13C12-OCDF	85	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column

*=This limit was used in the evaluation of the final result

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Lancaster Laboratories
Environmental

Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: SL-516-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7307344
LL Group # 1439666
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/09/2013 10:30 by EL

Submitted: 12/10/2013 11:35
Reported: 12/31/2013 14:32

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51600 SDG#: PH142-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

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Lancaster Laboratories Environmental
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Analysis Report

Sample Description: SL-516-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7307344
LL Group # 1439666
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/09/2013 10:30 by EL

Submitted: 12/10/2013 11:35
Reported: 12/31/2013 14:32

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51600 SDG#: PH142-04

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13348SLG026	12/29/2013	09:31	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	13348SLG026	12/16/2013	09:50	Katheryne V Sponheimer	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	133500024A	12/18/2013	06:10	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	133500024A	12/17/2013	08:40	Katheryne V Sponheimer	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13348002	12/17/2013	10:23	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13348002	12/14/2013	09:00	Chin F Ly	1
01643	Aluminum	SW-846 6010C	1	133470637001	12/16/2013	18:34	Katlin N Cataldi	1
06944	Antimony	SW-846 6010C	1	133470637001	12/16/2013	18:34	Katlin N Cataldi	1
06935	Arsenic	SW-846 6010C	1	133470637001	12/16/2013	18:34	Katlin N Cataldi	1
06946	Barium	SW-846 6010C	1	133470637001	12/16/2013	18:34	Katlin N Cataldi	1
06947	Beryllium	SW-846 6010C	1	133470637001	12/16/2013	18:34	Katlin N Cataldi	1
07914	Boron	SW-846 6010C	1	133470637001	12/16/2013	18:34	Katlin N Cataldi	1
06949	Cadmium	SW-846 6010C	1	133470637001	12/16/2013	18:34	Katlin N Cataldi	1
01650	Calcium	SW-846 6010C	1	133470637001	12/16/2013	18:34	Katlin N Cataldi	1
06951	Chromium	SW-846 6010C	1	133470637001	12/16/2013	18:34	Katlin N Cataldi	1
06952	Cobalt	SW-846 6010C	1	133470637001	12/16/2013	18:34	Katlin N Cataldi	1
06953	Copper	SW-846 6010C	1	133470637001	12/16/2013	18:34	Katlin N Cataldi	1
01654	Iron	SW-846 6010C	1	133470637001	12/16/2013	18:34	Katlin N Cataldi	1
06955	Lead	SW-846 6010C	1	133470637001	12/16/2013	18:34	Katlin N Cataldi	1
01656	Lithium	SW-846 6010C	1	133470637001	12/16/2013	18:34	Katlin N Cataldi	1
01657	Magnesium	SW-846 6010C	1	133470637001	12/16/2013	18:34	Katlin N Cataldi	1
06958	Manganese	SW-846 6010C	1	133470637001	12/16/2013	18:34	Katlin N Cataldi	1
06960	Molybdenum	SW-846 6010C	1	133470637001	12/16/2013	18:34	Katlin N Cataldi	1
06961	Nickel	SW-846 6010C	1	133470637001	12/16/2013	18:34	Katlin N Cataldi	1
10145	Phosphorus	SW-846 6010C	1	133470637001	12/16/2013	18:34	Katlin N Cataldi	1
01662	Potassium	SW-846 6010C	1	133470637001	12/16/2013	18:34	Katlin N Cataldi	1
01667	Sodium	SW-846 6010C	1	133470637001	12/16/2013	18:34	Katlin N Cataldi	1
06969	Tin	SW-846 6010C	1	133470637001	12/16/2013	18:34	Katlin N Cataldi	1
06970	Titanium	SW-846 6010C	1	133470637001	12/16/2013	18:34	Katlin N Cataldi	1
06971	Vanadium	SW-846 6010C	1	133470637001	12/16/2013	18:34	Katlin N Cataldi	1
06972	Zinc	SW-846 6010C	1	133470637001	12/16/2013	18:34	Katlin N Cataldi	1
10146	Zirconium	SW-846 6010C	1	133470637001	12/16/2013	18:34	Katlin N Cataldi	1
06141	Selenium	SW-846 6020A	1	133470637001B	12/17/2013	18:43	John P Hook	2
06142	Silver	SW-846 6020A	1	133470637001A	12/17/2013	18:43	John P Hook	2
06144	Strontium	SW-846 6020A	1	133470637001A	12/17/2013	18:43	John P Hook	2
06145	Thallium	SW-846 6020A	1	133470637001A	12/17/2013	18:43	John P Hook	2
00159	3a Mercury 7471A	SW-846 7471B	1	133470638001	12/17/2013	07:46	Damary Valentin	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-516-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7307344
LL Group # 1439666
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/09/2013 10:30 by EL

Submitted: 12/10/2013 11:35
Reported: 12/31/2013 14:32

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51600 SDG#: PH142-04

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	133470637001	12/15/2013 23:55	Annamaria Kuhns	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	133470638001	12/16/2013 02:30	Annamaria Kuhns	1
00394	15a pH by 9045D	SW-846 9045D modified	1	13344039402A	12/10/2013 16:00	Carolyn M Mastropietro	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13351162401A	12/17/2013 23:21	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-516-NBZ-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7307345
LL Group # 1439666
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/09/2013 11:00 by EL

Submitted: 12/10/2013 11:35
Reported: 12/31/2013 14:32

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51640 SDG#: PH142-05

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.69	1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.34	1
12969	Anthracene	120-12-7	1.7	U	1.7	0.34	1
12969	Benzo(a)anthracene	56-55-3	1.7	U	1.7	0.69	1
12969	Benzo(a)pyrene	50-32-8	1.7	U	1.7	0.69	1
12969	Benzo(b)fluoranthene	205-99-2	1.7	U	1.7	0.69	1
12969	Benzo(e)pyrene	192-97-2	17	U	17	3.4	1
12969	Benzo(g,h,i)perylene	191-24-2	1.7	U	1.7	0.69	1
12969	Benzo(k)fluoranthene	207-08-9	1.7	U	1.7	0.69	1
12969	Butylbenzylphthalate	85-68-7	19	U	19	6.2	1
12969	Di-n-butylphthalate	84-74-2	19	U	19	6.2	1
12969	Chrysene	218-01-9	1.7	U	1.7	0.34	1
12969	Dibenz(a,h)anthracene	53-70-3	1.7	U	1.7	0.69	1
12969	Diethylphthalate	84-66-2	19	U	19	6.2	1
12969	Dimethylphthalate	131-11-3	19	U	19	6.2	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	19	U	19	6.2	1
12969	Fluoranthene	206-44-0	1.7	U	1.7	0.69	1
12969	Fluorene	86-73-7	1.7	U	1.7	0.69	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.7	U	1.7	0.69	1
12969	1-Methylnaphthalene	90-12-0	1.7	U	1.7	0.69	1
12969	2-Methylnaphthalene	91-57-6	1.7	U	1.7	0.69	1
12969	Naphthalene	91-20-3	1.4	J	1.7	0.69	1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.69	1
12969	Di-n-octylphthalate	117-84-0	19	U	19	6.2	1
12969	Phenanthrene	85-01-8	1.7	U	1.7	0.69	1
12969	Pyrene	129-00-0	1.7	U	1.7	0.69	1
GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	1.0	U	1.0	0.2	24.51
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.1	U	5.1	2.0	1
12952	EFH (C15-C20)	n.a.	5.1	U	5.1	2.0	1
12952	EFH (C21-C30)	n.a.	5.1	U	5.1	2.0	1
12952	EFH (C30-C40)	n.a.	10	U	10	4.1	1
12952	EFH (C8-C11)	n.a.	5.1	U	5.1	2.0	1
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	13,400		41.3	7.44	1
06944	Antimony	7440-36-0	4.13	U	4.13	0.764	1
06935	Arsenic	7440-38-2	2.81	J	4.13	0.722	1
06946	Barium	7440-39-3	56.3		1.03	0.0341	1
06947	Beryllium	7440-41-7	0.577	J	1.03	0.0691	1
07914	Boron	7440-42-8	1.24	J	10.3	0.867	1
06949	Cadmium	7440-43-9	0.303	J	1.03	0.0784	1
01650	Calcium	7440-70-2	2,200		20.6	3.45	1
06951	Chromium	7440-47-3	13.6		3.10	0.165	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-516-NBZ-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7307345
LL Group # 1439666
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/09/2013 11:00 by EL

Submitted: 12/10/2013 11:35
Reported: 12/31/2013 14:32

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51640 SDG#: PH142-05

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
06952	Cobalt	7440-48-4	4.53		1.03	0.102	1
06953	Copper	7440-50-8	1.31	J	2.06	0.299	1
01654	Iron	7439-89-6	17,900		41.3	3.74	1
06955	Lead	7439-92-1	5.65		3.10	0.516	1
01656	Lithium	7439-93-2	27.4		4.1	0.35	1
01657	Magnesium	7439-95-4	4,480		10.3	1.72	1
06958	Manganese	7439-96-5	237		1.03	0.0857	1
06960	Molybdenum	7439-98-7	2.06	U	2.06	0.175	1
06961	Nickel	7440-02-0	7.91		2.06	0.134	1
10145	Phosphorus	7723-14-0	280		10.3	2.98	1
01662	Potassium	7440-09-7	2,490		103	8.61	1
01667	Sodium	7440-23-5	58.9	J	103	17.2	1
06969	Tin	7440-31-5	2.93	J	10.3	0.227	1
06970	Titanium	7440-32-6	994		1.03	0.175	1
06971	Vanadium	7440-62-2	28.2		1.03	0.134	1
06972	Zinc	7440-66-6	44.2		4.13	0.206	1
10146	Zirconium	7440-67-7	3.65	J	5.16	0.867	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.413	U	0.413	0.103	2
06142	Silver	7440-22-4	0.206	U	0.206	0.0268	2
06144	Strontium	7440-24-6	10.7		0.413	0.0702	2
06145	Thallium	7440-28-0	0.218		0.206	0.0310	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0166	U	0.0166	0.010	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045D	n.a.	7.09		0.0100	0.0100	1
	The pH was measured in water at 18.6 C.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	3.1		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

*=This limit was used in the evaluation of the final result

Sample Description: SL-516-NBZ-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7307345
LL Group # 1439666
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/09/2013 11:00 by EL

Submitted: 12/10/2013 11:35
Reported: 12/31/2013 14:32

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51640 SDG#: PH142-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		**ng/kg**	**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	1.02 U	1.02	0.0819	1
11031	12378-PeCDD	40321-76-4	0.0392 JBQ	5.10	0.0390	1
11031	123478-HxCDD	39227-28-6	5.10 U	5.10	0.0230	1
11031	123678-HxCDD	57653-85-7	5.10 U	5.10	0.0246	1
11031	123789-HxCDD	19408-74-3	0.0337 JQ	5.10	0.0229	1
11031	1234678-HpCDD	35822-46-9	0.0566 JBQ	5.10	0.0271	1
11031	OCDD	3268-87-9	0.285 JB	10.2	0.0217	1
11031	2378-TCDF	51207-31-9	1.02 U	1.02	0.0570	1
11031	12378-PeCDF	57117-41-6	0.0646 JBQ	5.10	0.0292	1
11031	23478-PeCDF	57117-31-4	5.10 U	5.10	0.0261	1
11031	123478-HxCDF	70648-26-9	0.0296 JBQ	5.10	0.0194	1
11031	123678-HxCDF	57117-44-9	5.10 U	5.10	0.0187	1
11031	123789-HxCDF	72918-21-9	0.0225 JBQ	5.10	0.0205	1
11031	234678-HxCDF	60851-34-5	5.10 U	5.10	0.0192	1
11031	1234678-HpCDF	67562-39-4	0.0309 JBQ	5.10	0.0118	1
11031	1234789-HpCDF	55673-89-7	0.0275 JBQ	5.10	0.0137	1
11031	OCDF	39001-02-0	0.118 JBQ	10.2	0.0303	1
D/F Toxic Equivalents	**EPA 1613B**		**ng/kg**	**ng/kg**	**ng/kg**	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.000103			1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	57	25 - 164
13C12-12378-PeCDD	70	25 - 181
13C12-123478-HxCDD	81	32 - 141
13C12-123678-HxCDD	81	28 - 130
13C12-123789-HxCDD	82	28 - 130
13C12-1234678-HpCDD	90	23 - 140
13C12-OCDD	96	17 - 157
13C12-2378-TCDF	54	24 - 169
13C12-12378-PeCDF	64	24 - 185
13C12-23478-PeCDF	66	21 - 178
13C12-123478-HxCDF	73	26 - 152
13C12-123678-HxCDF	75	26 - 123
13C12-234678-HxCDF	74	28 - 136
13C12-123789-HxCDF	77	29 - 147
13C12-1234678-HpCDF	87	28 - 143
13C12-1234789-HpCDF	82	26 - 138
13C12-OCDF	88	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column

*=This limit was used in the evaluation of the final result

Sample Description: SL-516-NBZ-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7307345
LL Group # 1439666
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/09/2013 11:00 by EL

Submitted: 12/10/2013 11:35
Reported: 12/31/2013 14:32

CDM Federal Programs Corp.
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Suite 400
Fairfax VA 22030

51640 SDG#: PH142-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-516-NBZ-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7307345
LL Group # 1439666
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/09/2013 11:00 by EL

Submitted: 12/10/2013 11:35
Reported: 12/31/2013 14:32

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51640 SDG#: PH142-05

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13348SLG026	12/29/2013	06:45	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	13348SLG026	12/16/2013	09:50	Katheryne V Sponheimer	1
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	13347A16A	12/16/2013	22:42	Marie D Beamenderfer	24.51
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201334433386	12/10/2013	17:02	Lisa J Cooke	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201334433386	12/10/2013	17:03	Lisa J Cooke	n.a.
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	133500024A	12/18/2013	05:27	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	133500024A	12/17/2013	08:40	Katheryne V Sponheimer	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13348002	12/17/2013	11:19	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13348002	12/14/2013	09:00	Chin F Ly	1
01643	Aluminum	SW-846 6010C	1	133470637001	12/16/2013	18:38	Katlin N Cataldi	1
06944	Antimony	SW-846 6010C	1	133470637001	12/16/2013	18:38	Katlin N Cataldi	1
06935	Arsenic	SW-846 6010C	1	133470637001	12/16/2013	18:38	Katlin N Cataldi	1
06946	Barium	SW-846 6010C	1	133470637001	12/16/2013	18:38	Katlin N Cataldi	1
06947	Beryllium	SW-846 6010C	1	133470637001	12/16/2013	18:38	Katlin N Cataldi	1
07914	Boron	SW-846 6010C	1	133470637001	12/16/2013	18:38	Katlin N Cataldi	1
06949	Cadmium	SW-846 6010C	1	133470637001	12/16/2013	18:38	Katlin N Cataldi	1
01650	Calcium	SW-846 6010C	1	133470637001	12/16/2013	18:38	Katlin N Cataldi	1
06951	Chromium	SW-846 6010C	1	133470637001	12/16/2013	18:38	Katlin N Cataldi	1
06952	Cobalt	SW-846 6010C	1	133470637001	12/16/2013	18:38	Katlin N Cataldi	1
06953	Copper	SW-846 6010C	1	133470637001	12/16/2013	18:38	Katlin N Cataldi	1
01654	Iron	SW-846 6010C	1	133470637001	12/16/2013	18:38	Katlin N Cataldi	1
06955	Lead	SW-846 6010C	1	133470637001	12/16/2013	18:38	Katlin N Cataldi	1
01656	Lithium	SW-846 6010C	1	133470637001	12/16/2013	18:38	Katlin N Cataldi	1
01657	Magnesium	SW-846 6010C	1	133470637001	12/16/2013	18:38	Katlin N Cataldi	1
06958	Manganese	SW-846 6010C	1	133470637001	12/16/2013	18:38	Katlin N Cataldi	1
06960	Molybdenum	SW-846 6010C	1	133470637001	12/16/2013	18:38	Katlin N Cataldi	1
06961	Nickel	SW-846 6010C	1	133470637001	12/16/2013	18:38	Katlin N Cataldi	1
10145	Phosphorus	SW-846 6010C	1	133470637001	12/16/2013	18:38	Katlin N Cataldi	1
01662	Potassium	SW-846 6010C	1	133470637001	12/16/2013	18:38	Katlin N Cataldi	1
01667	Sodium	SW-846 6010C	1	133470637001	12/16/2013	18:38	Katlin N Cataldi	1
06969	Tin	SW-846 6010C	1	133470637001	12/16/2013	18:38	Katlin N Cataldi	1
06970	Titanium	SW-846 6010C	1	133470637001	12/16/2013	18:38	Katlin N Cataldi	1
06971	Vanadium	SW-846 6010C	1	133470637001	12/16/2013	18:38	Katlin N Cataldi	1
06972	Zinc	SW-846 6010C	1	133470637001	12/16/2013	18:38	Katlin N Cataldi	1
10146	Zirconium	SW-846 6010C	1	133470637001	12/16/2013	18:38	Katlin N Cataldi	1
06141	Selenium	SW-846 6020A	1	133470637001B	12/17/2013	18:45	John P Hook	2
06142	Silver	SW-846 6020A	1	133470637001A	12/17/2013	18:45	John P Hook	2

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-516-NBZ-SB-4.0-5.0 Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7307345
LL Group # 1439666
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/09/2013 11:00 by EL

Submitted: 12/10/2013 11:35
Reported: 12/31/2013 14:32

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51640 SDG#: PH142-05

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06144	Strontium	SW-846 6020A	1	133470637001A	12/17/2013 18:45	John P Hook	2
06145	Thallium	SW-846 6020A	1	133470637001A	12/17/2013 18:45	John P Hook	2
00159	3a Mercury 7471A	SW-846 7471B	1	133470638001	12/17/2013 07:48	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	133470637001	12/15/2013 23:55	Annamaria Kuhns	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	133470638001	12/16/2013 02:30	Annamaria Kuhns	1
00394	15a pH by 9045D	SW-846 9045D modified	1	13344039402A	12/10/2013 16:00	Carolyn M Mastropietro	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13351162401A	12/17/2013 23:21	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-513-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7307346
LL Group # 1439666
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/09/2013 10:10 by EL

Submitted: 12/10/2013 11:35
Reported: 12/31/2013 14:32

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

52200 SDG#: PH142-06

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	11	U	11	4.3	2
12952	EFH (C15-C20)	n.a.	12		11	4.3	2
12952	EFH (C21-C30)	n.a.	47		11	4.3	2
12952	EFH (C30-C40)	n.a.	120		21	8.6	2
12952	EFH (C8-C11)	n.a.	11	U	11	4.3	2
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	6.6		0.10	0.10	1

Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	133500024A	12/19/2013 01:47	Heather E Williams	2
12959	EFH soil ext.(microwave)	SW-846 3546	1	133500024A	12/17/2013 08:40	Katheryne V Sponheimer	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13351162401A	12/17/2013 23:21	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-522-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7307347
LL Group # 1439666
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/09/2013 11:05 by EL

Submitted: 12/10/2013 11:35
Reported: 12/31/2013 14:32

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51300 SDG#: PH142-07

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.69	1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.35	1
12969	Anthracene	120-12-7	1.7	U	1.7	0.35	1
12969	Benzo(a)anthracene	56-55-3	1.7	U	1.7	0.69	1
12969	Benzo(a)pyrene	50-32-8	1.7	U	1.7	0.69	1
12969	Benzo(b)fluoranthene	205-99-2	1.8		1.7	0.69	1
12969	Benzo(e)pyrene	192-97-2	18	U	18	3.5	1
12969	Benzo(g,h,i)perylene	191-24-2	0.93	J	1.7	0.69	1
12969	Benzo(k)fluoranthene	207-08-9	1.7	U	1.7	0.69	1
12969	Butylbenzylphthalate	85-68-7	19	U	19	6.2	1
12969	Di-n-butylphthalate	84-74-2	19	U	19	6.2	1
12969	Chrysene	218-01-9	2.0		1.7	0.35	1
12969	Dibenz(a,h)anthracene	53-70-3	1.7	U	1.7	0.69	1
12969	Diethylphthalate	84-66-2	19	U	19	6.2	1
12969	Dimethylphthalate	131-11-3	19	U	19	6.2	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	19	U	19	6.2	1
12969	Fluoranthene	206-44-0	1.3	J	1.7	0.69	1
12969	Fluorene	86-73-7	1.7	U	1.7	0.69	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	0.77	J	1.7	0.69	1
12969	1-Methylnaphthalene	90-12-0	1.7	U	1.7	0.69	1
12969	2-Methylnaphthalene	91-57-6	1.7	U	1.7	0.69	1
12969	Naphthalene	91-20-3	0.78	J	1.7	0.69	1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.69	1
12969	Di-n-octylphthalate	117-84-0	19	U	19	6.2	1
12969	Phenanthrene	85-01-8	1.1	J	1.7	0.69	1
12969	Pyrene	129-00-0	1.4	J	1.7	0.69	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.2	U	5.2	2.1	1
12952	EFH (C15-C20)	n.a.	2.7	J	5.2	2.1	1
12952	EFH (C21-C30)	n.a.	23		5.2	2.1	1
12952	EFH (C30-C40)	n.a.	43		10	4.1	1
12952	EFH (C8-C11)	n.a.	5.2	U	5.2	2.1	1
Wet Chemistry	**EPA 300.0**		**mg/kg**		**mg/kg**	**mg/kg**	
07336	1a Anions by 300.0 - Nitrate	14797-55-8	3.2		0.78	0.42	1
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	4.3		0.10	0.10	1

Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-522-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7307347
LL Group # 1439666
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/09/2013 11:05 by EL

Submitted: 12/10/2013 11:35
Reported: 12/31/2013 14:32

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51300 SDG#: PH142-07

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13348SLG026	12/29/2013 07:18	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	13348SLG026	12/16/2013 09:50	Katheryne V Sponheimer	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	133500024A	12/18/2013 06:31	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	133500024A	12/17/2013 08:40	Katheryne V Sponheimer	1
07336	1a Anions by 300.0 - Nitrate	EPA 300.0	1	13353347201A	12/19/2013 07:28	Sandra J Miller	1
01352	1a Anions by 300.0 - Extract.	EPA 300.0	1	13353347201A	12/19/2013 05:00	Sandra J Miller	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13351162401A	12/17/2013 23:21	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-523-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7307348
LL Group # 1439666
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/09/2013 12:45 by EL

Submitted: 12/10/2013 11:35
Reported: 12/31/2013 14:32

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

52300 SDG#: PH142-08

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.70	1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.35	1
12969	Anthracene	120-12-7	1.7	U	1.7	0.35	1
12969	Benzo(a)anthracene	56-55-3	1.0	J	1.7	0.70	1
12969	Benzo(a)pyrene	50-32-8	1.4	J	1.7	0.70	1
12969	Benzo(b)fluoranthene	205-99-2	3.4		1.7	0.70	1
12969	Benzo(e)pyrene	192-97-2	18	U	18	3.5	1
12969	Benzo(g,h,i)perylene	191-24-2	1.1	J	1.7	0.70	1
12969	Benzo(k)fluoranthene	207-08-9	0.87	J	1.7	0.70	1
12969	Butylbenzylphthalate	85-68-7	7.6	J	19	6.3	1
12969	Di-n-butylphthalate	84-74-2	19	U	19	6.3	1
12969	Chrysene	218-01-9	3.0		1.7	0.35	1
12969	Dibenz(a,h)anthracene	53-70-3	1.7	U	1.7	0.70	1
12969	Diethylphthalate	84-66-2	19	U	19	6.3	1
12969	Dimethylphthalate	131-11-3	19	U	19	6.3	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	19		19	6.3	1
12969	Fluoranthene	206-44-0	2.5		1.7	0.70	1
12969	Fluorene	86-73-7	1.7	U	1.7	0.70	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	0.79	J	1.7	0.70	1
12969	1-Methylnaphthalene	90-12-0	1.1	J	1.7	0.70	1
12969	2-Methylnaphthalene	91-57-6	1.6	J	1.7	0.70	1
12969	Naphthalene	91-20-3	2.1		1.7	0.70	1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.70	1
12969	Di-n-octylphthalate	117-84-0	19	U	19	6.3	1
12969	Phenanthrene	85-01-8	1.7	J	1.7	0.70	1
12969	Pyrene	129-00-0	2.5		1.7	0.70	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.2	U	5.2	2.1	1
12952	EFH (C15-C20)	n.a.	3.3	J	5.2	2.1	1
12952	EFH (C21-C30)	n.a.	36		5.2	2.1	1
12952	EFH (C30-C40)	n.a.	72		10	4.2	1
12952	EFH (C8-C11)	n.a.	5.2	U	5.2	2.1	1
Wet Chemistry	**EPA 300.0**		**mg/kg**		**mg/kg**	**mg/kg**	
07336	1a Anions by 300.0 - Nitrate	14797-55-8	8.6		0.78	0.42	1
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	4.5		0.10	0.10	1

Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-523-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7307348
LL Group # 1439666
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/09/2013 12:45 by EL

Submitted: 12/10/2013 11:35
Reported: 12/31/2013 14:32

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

52300 SDG#: PH142-08

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13348SLG026	12/29/2013 10:03	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	13348SLG026	12/16/2013 09:50	Katheryne V Sponheimer	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	133500024A	12/18/2013 09:22	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	133500024A	12/17/2013 08:40	Katheryne V Sponheimer	1
07336	1a Anions by 300.0 - Nitrate	EPA 300.0	1	13353347201A	12/19/2013 07:44	Sandra J Miller	1
01352	1a Anions by 300.0 - Extract.	EPA 300.0	1	13353347201A	12/19/2013 05:00	Sandra J Miller	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13351162401A	12/17/2013 23:21	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-524-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7307349
LL Group # 1439666
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/09/2013 13:40 by EL

Submitted: 12/10/2013 11:35
Reported: 12/31/2013 14:32

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

52400 SDG#: PH142-09BKG

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.69	1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.35	1
12969	Anthracene	120-12-7	1.7	U	1.7	0.35	1
12969	Benzo(a)anthracene	56-55-3	1.7	U	1.7	0.69	1
12969	Benzo(a)pyrene	50-32-8	1.7	U	1.7	0.69	1
12969	Benzo(b)fluoranthene	205-99-2	2.0		1.7	0.69	1
12969	Benzo(e)pyrene	192-97-2	18	U	18	3.5	1
12969	Benzo(g,h,i)perylene	191-24-2	1.7	U	1.7	0.69	1
12969	Benzo(k)fluoranthene	207-08-9	1.7	U	1.7	0.69	1
12969	Butylbenzylphthalate	85-68-7	19	U	19	6.2	1
12969	Di-n-butylphthalate	84-74-2	19	U	19	6.2	1
12969	Chrysene	218-01-9	2.4		1.7	0.35	1
12969	Dibenz(a,h)anthracene	53-70-3	1.7	U	1.7	0.69	1
12969	Diethylphthalate	84-66-2	19	U	19	6.2	1
12969	Dimethylphthalate	131-11-3	19	U	19	6.2	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	19	U	19	6.2	1
12969	Fluoranthene	206-44-0	1.3	J	1.7	0.69	1
12969	Fluorene	86-73-7	1.7	U	1.7	0.69	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.7	U	1.7	0.69	1
12969	1-Methylnaphthalene	90-12-0	1.7	U	1.7	0.69	1
12969	2-Methylnaphthalene	91-57-6	0.87	J	1.7	0.69	1
12969	Naphthalene	91-20-3	1.7		1.7	0.69	1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.69	1
12969	Di-n-octylphthalate	117-84-0	19	U	19	6.2	1
12969	Phenanthrene	85-01-8	2.1		1.7	0.69	1
12969	Pyrene	129-00-0	1.4	J	1.7	0.69	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	10	U	10	4.2	2
12952	EFH (C15-C20)	n.a.	8.4	J	10	4.2	2
12952	EFH (C21-C30)	n.a.	58		10	4.2	2
12952	EFH (C30-C40)	n.a.	120		21	8.4	2
12952	EFH (C8-C11)	n.a.	10	U	10	4.2	2
Wet Chemistry	**EPA 300.0**		**mg/kg**		**mg/kg**	**mg/kg**	
07336	1a Anions by 300.0 - Nitrate	14797-55-8	0.70	J	0.78	0.42	1
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	4.6		0.10	0.10	1

Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-524-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7307349
LL Group # 1439666
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/09/2013 13:40 by EL

Submitted: 12/10/2013 11:35
Reported: 12/31/2013 14:32

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

52400 SDG#: PH142-09BKG

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13348SLG026	12/27/2013 12:11	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	13348SLG026	12/16/2013 09:50	Katheryne V Sponheimer	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	133500024A	12/19/2013 02:09	Heather E Williams	2
12959	EFH soil ext.(microwave)	SW-846 3546	1	133500024A	12/17/2013 08:40	Katheryne V Sponheimer	1
07336	1a Anions by 300.0 - Nitrate	EPA 300.0	1	13353347201A	12/19/2013 08:01	Sandra J Miller	1
01352	1a Anions by 300.0 - Extract.	EPA 300.0	1	13353347201A	12/19/2013 05:00	Sandra J Miller	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13351162401A	12/17/2013 23:21	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-524-NBZ-SB-0.0-0.5MS Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7307350
LL Group # 1439666
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/09/2013 13:40 by EL

Submitted: 12/10/2013 11:35
Reported: 12/31/2013 14:32

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

52400 SDG#: PH142-09MS

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	29		1.7	0.70	1
12969	Acenaphthylene	208-96-8	29		1.7	0.35	1
12969	Anthracene	120-12-7	29		1.7	0.35	1
12969	Benzo(a)anthracene	56-55-3	31		1.7	0.70	1
12969	Benzo(a)pyrene	50-32-8	28		1.7	0.70	1
12969	Benzo(b)fluoranthene	205-99-2	37		1.7	0.70	1
12969	Benzo(e)pyrene	192-97-2	28		18	3.5	1
12969	Benzo(g,h,i)perylene	191-24-2	14		1.7	0.70	1
12969	Benzo(k)fluoranthene	207-08-9	33		1.7	0.70	1
12969	Butylbenzylphthalate	85-68-7	34		19	6.3	1
12969	Di-n-butylphthalate	84-74-2	31		19	6.3	1
12969	Chrysene	218-01-9	33		1.7	0.35	1
12969	Dibenz(a,h)anthracene	53-70-3	17		1.7	0.70	1
12969	Diethylphthalate	84-66-2	31		19	6.3	1
12969	Dimethylphthalate	131-11-3	32		19	6.3	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	35		19	6.3	1
12969	Fluoranthene	206-44-0	31		1.7	0.70	1
12969	Fluorene	86-73-7	30		1.7	0.70	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	17		1.7	0.70	1
12969	1-Methylnaphthalene	90-12-0	35		1.7	0.70	1
12969	2-Methylnaphthalene	91-57-6	34		1.7	0.70	1
12969	Naphthalene	91-20-3	32		1.7	0.70	1
12969	N-Nitrosodimethylamine	62-75-9	29		1.7	0.70	1
12969	Di-n-octylphthalate	117-84-0	47		19	6.3	1
12969	Phenanthrene	85-01-8	31		1.7	0.70	1
12969	Pyrene	129-00-0	33		1.7	0.70	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.3		5.2	2.1	1
12952	EFH (C15-C20)	n.a.	14		5.2	2.1	1
12952	EFH (C21-C30)	n.a.	52		5.2	2.1	1
12952	EFH (C30-C40)	n.a.	89		10	4.2	1
12952	EFH (C8-C11)	n.a.	4.1	J	5.2	2.1	1
Wet Chemistry	**EPA 300.0**		**mg/kg**		**mg/kg**	**mg/kg**	
07336	1a Anions by 300.0 - Nitrate	14797-55-8	7.4		0.78	0.42	1
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11625	14a Moisture Content by 160.3	n.a.	4.6		0.10	0.10	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-524-NBZ-SB-0.0-0.5MS Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7307350
LL Group # 1439666
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/09/2013 13:40 by EL

Submitted: 12/10/2013 11:35
Reported: 12/31/2013 14:32

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

52400 SDG#: PH142-09MS

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13348SLG026	12/27/2013 12:44	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	13348SLG026	12/16/2013 09:50	Katheryne V Sponheimer	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	133500024A	12/18/2013 07:57	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	133500024A	12/17/2013 08:40	Katheryne V Sponheimer	1
07336	1a Anions by 300.0 - Nitrate	EPA 300.0	1	13353347201A	12/19/2013 12:04	Sandra J Miller	1
01352	1a Anions by 300.0 - Extract.	EPA 300.0	1	13353347201A	12/19/2013 05:00	Sandra J Miller	1
11625	14a Moisture Content by 160.3	EPA 160.3 modified	1	13351162401A	12/17/2013 23:21	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-524-NBZ-SB-0.0-0.5MSD Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7307351
LL Group # 1439666
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/09/2013 13:40 by EL

Submitted: 12/10/2013 11:35
Reported: 12/31/2013 14:32

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

52400 SDG#: PH142-09MSD

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	32		1.7	0.70	1
12969	Acenaphthylene	208-96-8	31		1.7	0.35	1
12969	Anthracene	120-12-7	33		1.7	0.35	1
12969	Benzo(a)anthracene	56-55-3	34		1.7	0.70	1
12969	Benzo(a)pyrene	50-32-8	35		1.7	0.70	1
12969	Benzo(b)fluoranthene	205-99-2	49		1.7	0.70	1
12969	Benzo(e)pyrene	192-97-2	35		18	3.5	1
12969	Benzo(g,h,i)perylene	191-24-2	17		1.7	0.70	1
12969	Benzo(k)fluoranthene	207-08-9	40		1.7	0.70	1
12969	Butylbenzylphthalate	85-68-7	40		19	6.3	1
12969	Di-n-butylphthalate	84-74-2	34		19	6.3	1
12969	Chrysene	218-01-9	39		1.7	0.35	1
12969	Dibenz(a,h)anthracene	53-70-3	20		1.7	0.70	1
12969	Diethylphthalate	84-66-2	35		19	6.3	1
12969	Dimethylphthalate	131-11-3	36		19	6.3	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	43		19	6.3	1
12969	Fluoranthene	206-44-0	36		1.7	0.70	1
12969	Fluorene	86-73-7	33		1.7	0.70	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	20		1.7	0.70	1
12969	1-Methylnaphthalene	90-12-0	40		1.7	0.70	1
12969	2-Methylnaphthalene	91-57-6	40		1.7	0.70	1
12969	Naphthalene	91-20-3	41		1.7	0.70	1
12969	N-Nitrosodimethylamine	62-75-9	33		1.7	0.70	1
12969	Di-n-octylphthalate	117-84-0	60		19	6.3	1
12969	Phenanthrene	85-01-8	39		1.7	0.70	1
12969	Pyrene	129-00-0	40		1.7	0.70	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	4.9	J	5.2	2.1	1
12952	EFH (C15-C20)	n.a.	9.5		5.2	2.1	1
12952	EFH (C21-C30)	n.a.	35		5.2	2.1	1
12952	EFH (C30-C40)	n.a.	71		10	4.2	1
12952	EFH (C8-C11)	n.a.	4.3	J	5.2	2.1	1
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11625	14a Moisture Content by 160.3	n.a.	4.6		0.10	0.10	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

*=This limit was used in the evaluation of the final result

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2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Analysis Report

Sample Description: SL-524-NBZ-SB-0.0-0.5MSD Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7307351
LL Group # 1439666
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/09/2013 13:40 by EL

Submitted: 12/10/2013 11:35
Reported: 12/31/2013 14:32

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

52400 SDG#: PH142-09MSD

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13348SLG026	12/27/2013 13:17	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	13348SLG026	12/16/2013 09:50	Katheryne V Sponheimer	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	133500024A	12/18/2013 08:18	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	133500024A	12/17/2013 08:40	Katheryne V Sponheimer	1
11625	14a Moisture Content by 160.3	EPA 160.3 modified	1	13351162401A	12/17/2013 23:21	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-524-NBZ-SB-0.0-0.5DUP Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7307352
LL Group # 1439666
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/09/2013 13:40 by EL

Submitted: 12/10/2013 11:35
Reported: 12/31/2013 14:32

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

52400 SDG#: PH142-09DUP

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Wet Chemistry	**EPA 300.0**		**mg/kg**	**mg/kg**	**mg/kg**	
07336	1a Anions by 300.0 - Nitrate	14797-55-8	0.85	0.78	0.42	1
Wet Chemistry	**EPA 160.3 modified**		**%**	**%**	**%**	
11625	14a Moisture Content by 160.3	n.a.	4.6	0.10	0.10	1
11626	14a Moisture Content by 160.3	n.a.	4.6	0.10	0.10	1

The duplicate moisture value is provided to assess the precision of the moisture test. For comparability purposes, the initial moisture determination is the value used to perform dry weight calculations.

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07336	1a Anions by 300.0 - Nitrate	EPA 300.0	1	13353347201A	12/19/2013 08:17	Sandra J Miller	1
01352	1a Anions by 300.0 - Extract.	EPA 300.0	1	13353347201A	12/19/2013 05:00	Sandra J Miller	1
11625	14a Moisture Content by 160.3	EPA 160.3 modified	1	13351162401A	12/17/2013 23:21	Scott W Freisher	1
11626	14a Moisture Content by 160.3	EPA 160.3 modified	1	13351162401A	12/17/2013 23:21	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-824-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7307353
LL Group # 1439666
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/09/2013 14:30 by EL

Submitted: 12/10/2013 11:35
Reported: 12/31/2013 14:32

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

82400 SDG#: PH142-10

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.8	U	1.8	0.70	1
12969	Acenaphthylene	208-96-8	1.8	U	1.8	0.35	1
12969	Anthracene	120-12-7	0.37	J	1.8	0.35	1
12969	Benzo(a)anthracene	56-55-3	1.7	J	1.8	0.70	1
12969	Benzo(a)pyrene	50-32-8	2.2		1.8	0.70	1
12969	Benzo(b)fluoranthene	205-99-2	5.7		1.8	0.70	1
12969	Benzo(e)pyrene	192-97-2	18	U	18	3.5	1
12969	Benzo(g,h,i)perylene	191-24-2	1.6	J	1.8	0.70	1
12969	Benzo(k)fluoranthene	207-08-9	1.7	J	1.8	0.70	1
12969	Butylbenzylphthalate	85-68-7	12	J	19	6.3	1
12969	Di-n-butylphthalate	84-74-2	19	U	19	6.3	1
12969	Chrysene	218-01-9	5.4		1.8	0.35	1
12969	Dibenz(a,h)anthracene	53-70-3	1.8	U	1.8	0.70	1
12969	Diethylphthalate	84-66-2	19	U	19	6.3	1
12969	Dimethylphthalate	131-11-3	19	U	19	6.3	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	31		19	6.3	1
12969	Fluoranthene	206-44-0	4.1		1.8	0.70	1
12969	Fluorene	86-73-7	0.97	J	1.8	0.70	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.1	J	1.8	0.70	1
12969	1-Methylnaphthalene	90-12-0	1.2	J	1.8	0.70	1
12969	2-Methylnaphthalene	91-57-6	1.4	J	1.8	0.70	1
12969	Naphthalene	91-20-3	2.3		1.8	0.70	1
12969	N-Nitrosodimethylamine	62-75-9	1.8	U	1.8	0.70	1
12969	Di-n-octylphthalate	117-84-0	19	U	19	6.3	1
12969	Phenanthrene	85-01-8	3.3		1.8	0.70	1
12969	Pyrene	129-00-0	4.7		1.8	0.70	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.2	U	5.2	2.1	1
12952	EFH (C15-C20)	n.a.	2.2	J	5.2	2.1	1
12952	EFH (C21-C30)	n.a.	28		5.2	2.1	1
12952	EFH (C30-C40)	n.a.	50		10	4.2	1
12952	EFH (C8-C11)	n.a.	5.2	U	5.2	2.1	1
Wet Chemistry	**EPA 300.0**		**mg/kg**		**mg/kg**	**mg/kg**	
07336	1a Anions by 300.0 - Nitrate	14797-55-8	5.8		0.79	0.42	1
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	5.4		0.10	0.10	1

Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-824-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7307353
LL Group # 1439666
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/09/2013 14:30 by EL

Submitted: 12/10/2013 11:35
Reported: 12/31/2013 14:32

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

82400 SDG#: PH142-10

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13348SLG026	12/29/2013 10:36	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	13348SLG026	12/16/2013 09:50	Katheryne V Sponheimer	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	133500024A	12/18/2013 06:52	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	133500024A	12/17/2013 08:40	Katheryne V Sponheimer	1
07336	1a Anions by 300.0 - Nitrate	EPA 300.0	1	13353347201A	12/19/2013 08:49	Sandra J Miller	1
01352	1a Anions by 300.0 - Extract.	EPA 300.0	1	13353347201A	12/19/2013 05:00	Sandra J Miller	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13351162401A	12/17/2013 23:21	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-522-NBZ-SB-2.5-3.5 Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7307354
LL Group # 1439666
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/09/2013 11:40 by EL

Submitted: 12/10/2013 11:35
Reported: 12/31/2013 14:32

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

52225 SDG#: PH142-11*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.69	1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.35	1
12969	Anthracene	120-12-7	1.7	U	1.7	0.35	1
12969	Benzo(a)anthracene	56-55-3	1.7	U	1.7	0.69	1
12969	Benzo(a)pyrene	50-32-8	1.7	U	1.7	0.69	1
12969	Benzo(b)fluoranthene	205-99-2	1.7	U	1.7	0.69	1
12969	Benzo(e)pyrene	192-97-2	18	U	18	3.5	1
12969	Benzo(g,h,i)perylene	191-24-2	1.7	U	1.7	0.69	1
12969	Benzo(k)fluoranthene	207-08-9	1.7	U	1.7	0.69	1
12969	Butylbenzylphthalate	85-68-7	19	U	19	6.2	1
12969	Di-n-butylphthalate	84-74-2	19	U	19	6.2	1
12969	Chrysene	218-01-9	1.7	U	1.7	0.35	1
12969	Dibenz(a,h)anthracene	53-70-3	1.7	U	1.7	0.69	1
12969	Diethylphthalate	84-66-2	19	U	19	6.2	1
12969	Dimethylphthalate	131-11-3	19	U	19	6.2	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	19	U	19	6.2	1
12969	Fluoranthene	206-44-0	1.7	U	1.7	0.69	1
12969	Fluorene	86-73-7	1.7	U	1.7	0.69	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.7	U	1.7	0.69	1
12969	1-Methylnaphthalene	90-12-0	1.7	U	1.7	0.69	1
12969	2-Methylnaphthalene	91-57-6	1.7	U	1.7	0.69	1
12969	Naphthalene	91-20-3	1.7	U	1.7	0.69	1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.69	1
12969	Di-n-octylphthalate	117-84-0	19	U	19	6.2	1
12969	Phenanthrene	85-01-8	1.7	U	1.7	0.69	1
12969	Pyrene	129-00-0	1.7	U	1.7	0.69	1
GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	1.1	U	1.1	0.2	25.99
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.2	U	5.2	2.1	1
12952	EFH (C15-C20)	n.a.	5.2	U	5.2	2.1	1
12952	EFH (C21-C30)	n.a.	5.2	U	5.2	2.1	1
12952	EFH (C30-C40)	n.a.	10	U	10	4.2	1
12952	EFH (C8-C11)	n.a.	5.2	U	5.2	2.1	1
Wet Chemistry	**EPA 300.0**		**mg/kg**		**mg/kg**	**mg/kg**	
07336	1a Anions by 300.0 - Nitrate	14797-55-8	0.61	J	0.79	0.42	1
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	4.8		0.10	0.10	1

Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-522-NBZ-SB-2.5-3.5 Soil
SSFL Phase 3 Subarea 8

LL Sample # SW 7307354
LL Group # 1439666
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/09/2013 11:40 by EL

Submitted: 12/10/2013 11:35
Reported: 12/31/2013 14:32

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

52225 SDG#: PH142-11*

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13348SLG026	12/29/2013 07:52	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	13348SLG026	12/16/2013 09:50	Katheryne V Sponheimer	1
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	13347A16A	12/16/2013 23:20	Marie D Beamenderfer	25.99
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201334433386	12/10/2013 17:04	Lisa J Cooke	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201334433386	12/10/2013 17:04	Lisa J Cooke	n.a.
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	133500024A	12/18/2013 05:48	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	133500024A	12/17/2013 08:40	Katheryne V Sponheimer	1
07336	1a Anions by 300.0 - Nitrate	EPA 300.0	1	13353347201A	12/19/2013 08:33	Sandra J Miller	1
01352	1a Anions by 300.0 - Extract.	EPA 300.0	1	13353347201A	12/19/2013 05:00	Sandra J Miller	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13351162401A	12/17/2013 23:21	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1439666
Reported: 12/31/13 at 02:32 PM

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 13348SLG026	Sample number(s): 7307344-7307345,7307347-7307351,7307353-7307354									
Acenaphthene	1.7	U	1.7	0.67	ug/kg	95		77-116		
Acenaphthylene	1.7	U	1.7	0.33	ug/kg	97		78-120		
Anthracene	1.7	U	1.7	0.33	ug/kg	100		80-116		
Benzo(a)anthracene	1.7	U	1.7	0.67	ug/kg	111		83-119		
Benzo(a)pyrene	1.7	U	1.7	0.67	ug/kg	108		80-122		
Benzo(b)fluoranthene	1.7	U	1.7	0.67	ug/kg	126		82-135		
Benzo(e)pyrene	17	U	17.	3.3	ug/kg	101		81-110		
Benzo(g,h,i)perylene	1.7	U	1.7	0.67	ug/kg	109		79-121		
Benzo(k)fluoranthene	1.7	U	1.7	0.67	ug/kg	104		79-123		
Butylbenzylphthalate	18	U	18.	6.0	ug/kg	101		77-123		
Di-n-butylphthalate	18	U	18.	6.0	ug/kg	97		78-125		
Chrysene	1.7	U	1.7	0.33	ug/kg	110		84-113		
Dibenz(a,h)anthracene	1.7	U	1.7	0.67	ug/kg	103		78-124		
Diethylphthalate	18	U	18.	6.0	ug/kg	100		77-130		
Dimethylphthalate	18	U	18.	6.0	ug/kg	103		85-122		
Bis(2-Ethylhexyl)phthalate	18	U	18.	6.0	ug/kg	101		79-121		
Fluoranthene	1.7	U	1.7	0.67	ug/kg	103		85-116		
Fluorene	1.7	U	1.7	0.67	ug/kg	100		81-126		
Indeno(1,2,3-cd)pyrene	1.7	U	1.7	0.67	ug/kg	108		77-124		
1-Methylnaphthalene	1.7	U	1.7	0.67	ug/kg	109		78-119		
2-Methylnaphthalene	1.7	U	1.7	0.67	ug/kg	109		78-121		
Naphthalene	1.7	U	1.7	0.67	ug/kg	97		79-113		
N-Nitrosodimethylamine	1.7	U	1.7	0.67	ug/kg	93		71-124		
Di-n-octylphthalate	18	U	18.	6.0	ug/kg	109		76-131		
Phenanthrene	1.7	U	1.7	0.67	ug/kg	99		72-110		
Pyrene	1.7	U	1.7	0.67	ug/kg	112		79-112		
Batch number: 13346A20A	Sample number(s): 7307341									
TPH-GRO S.CA water C5-C12	50	U	50.	20	ug/l	97	100	75-135	3	30
Batch number: 13347A16A	Sample number(s): 7307345,7307354									
11a TPH by EPA 8015B GRO	1.0	U	1.0	0.2	mg/kg	83	87	67-119	4	30
Batch number: 133470015A	Sample number(s): 7307342-7307343									
Aldrin	0.83	U	0.83	0.17	ug/kg	103		60-118		
Alpha BHC	0.83	U	0.83	0.17	ug/kg	109		62-128		
Beta BHC	1.9	U	1.9	0.96	ug/kg	107		69-121		
Gamma BHC - Lindane	0.83	U	0.83	0.17	ug/kg	114		64-130		
Chlordane	17	U	17.	4.0	ug/kg					
p,p-DDD	1.7	U	1.7	0.33	ug/kg	109		69-141		
p,p-DDE	1.7	U	1.7	0.33	ug/kg	115		69-130		
p,p-DDT	1.7	U	1.7	0.35	ug/kg	114		64-139		
Delta BHC	0.83	U	0.83	0.45	ug/kg	110		51-141		

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1439666
Reported: 12/31/13 at 02:32 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Dieldrin	1.7	U	1.7	0.33	ug/kg	103		73-135		
Endosulfan I	0.83	U	0.83	0.22	ug/kg	87		64-130		
Endosulfan II	1.7	U	1.7	0.33	ug/kg	93		68-128		
Endosulfan Sulfate	1.7	U	1.7	0.33	ug/kg	109		71-132		
Endrin	1.7	U	1.7	0.33	ug/kg	101		70-132		
Endrin Aldehyde	1.7	U	1.7	0.33	ug/kg	97		60-120		
Endrin Ketone	1.8	U	1.8	0.60	ug/kg	103		74-127		
Heptachlor	0.83	U	0.83	0.17	ug/kg	101		62-127		
Heptachlor Epoxide	0.83	U	0.83	0.17	ug/kg	105		69-125		
Methoxychlor	6.7	U	6.7	1.7	ug/kg	107		67-136		
Mirex	1.7	U	1.7	0.35	ug/kg					
Toxaphene	33	U	33.	14	ug/kg					
Batch number: 133500024A	Sample number(s): 7307344-7307351,7307353-7307354									
EFH (C12-C14)	5.0	U	5.0	2.0	mg/kg	92		76-115		
EFH (C15-C20)	5.0	U	5.0	2.0	mg/kg	95		78-127		
EFH (C21-C30)	5.0	U	5.0	2.0	mg/kg	95		77-127		
EFH (C30-C40)	10	U	10.	4.0	mg/kg	87		44-134		
EFH (C8-C11)	5.0	U	5.0	2.0	mg/kg	75		60-115		
Batch number: 133470637001	Sample number(s): 7307344-7307345									
Aluminum	40.0	U	40.0	7.21	mg/kg	102		80-120		
Antimony	4.00	U	4.00	0.740	mg/kg	105		80-120		
Arsenic	4.00	U	4.00	0.700	mg/kg	105		80-120		
Barium	1.00	U	1.00	0.0330	mg/kg	103		80-120		
Beryllium	1.00	U	1.00	0.0670	mg/kg	103		80-120		
Boron	10.0	U	10.0	0.840	mg/kg	96		80-120		
Cadmium	1.00	U	1.00	0.0760	mg/kg	110		80-120		
Calcium	4.84	J	20.0	3.34	mg/kg	103		80-120		
Chromium	3.00	U	3.00	0.160	mg/kg	97		80-120		
Cobalt	1.00	U	1.00	0.0990	mg/kg	109		80-120		
Copper	2.00	U	2.00	0.290	mg/kg	106		80-120		
Iron	40.0	U	40.0	3.62	mg/kg	106		80-120		
Lead	3.00	U	3.00	0.500	mg/kg	112		80-120		
Lithium	4.0	U	4.0	0.34	mg/kg	105		80-120		
Magnesium	2.30	J	10.0	1.67	mg/kg	104		80-120		
Manganese	1.00	U	1.00	0.0830	mg/kg	106		80-120		
Molybdenum	2.00	U	2.00	0.170	mg/kg	103		80-120		
Nickel	2.00	U	2.00	0.130	mg/kg	114		80-120		
Phosphorus	10.0	U	10.0	2.89	mg/kg	110		80-120		
Potassium	100 U		100.	8.34	mg/kg	103		80-120		
Sodium	100 U		100.	16.7	mg/kg	102		80-120		
Tin	1.63	J	10.0	0.220	mg/kg	101		80-120		
Titanium	1.00	U	1.00	0.170	mg/kg	100		80-120		
Vanadium	1.00	U	1.00	0.130	mg/kg	99		80-120		
Zinc	0.233	J	4.00	0.200	mg/kg	108		80-120		
Zirconium	5.00	U	5.00	0.840	mg/kg	98		80-120		
Batch number: 133470637001A	Sample number(s): 7307344-7307345									
Silver	0.200	U	0.200	0.0260	mg/kg	109		80-120		
Strontium	0.400	U	0.400	0.0680	mg/kg	106		80-120		
Thallium	0.200	U	0.200	0.0300	mg/kg	109		80-120		
Batch number: 133470637001B	Sample number(s): 7307344-7307345									

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1439666
Reported: 12/31/13 at 02:32 PM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Selenium	0.400	U	0.400	0.100	mg/kg	114		80-120		
Batch number: 133470638001	Sample number(s): 7307344-7307345									
3a Mercury 7471A	0.0167	U	0.0167	0.0100	mg/kg	112		85-120		
Batch number: 13353347201A	Sample number(s): 7307347-7307350,7307352-7307354									
1a Anions by 300.0 - Nitrate	0.75	U	0.75	0.40	mg/kg	105		90-110		
Batch number: 13344039402A	Sample number(s): 7307344-7307345									
15a pH by 9045D						100		95-105		
Batch number: 13351162401A	Sample number(s): 7307342-7307354									
14a Moisture Content by 160.3						100		80-120		
14a Moisture Content by 160.3						100		80-120		
14a Moisture Content by 160.3						100		80-120		

Analysis Name	Blank Result		Blank MRL**	Blank EDL	Report Units	OPR %REC	OPRD %REC	OPR/OPRD Limits	RPD	RPD Max
Batch number: 13348002	Sample number(s): 7307344-7307345									
2378-TCDD	1.00	U	1.00	0.0571	ng/kg	92		67-158		
12378-PeCDD	0.0326	J	5.00	0.0325	ng/kg	95		70-142		
123478-HxCDD	0.0259	J	5.00	0.0210	ng/kg	96		70-164		
123678-HxCDD	5.00	U	5.00	0.0215	ng/kg	99		76-134		
123789-HxCDD	5.00	U	5.00	0.0203	ng/kg	96		64-162		
1234678-HpCDD	0.0876	J	5.00	0.0247	ng/kg	95		70-140		
OCDD	0.213	J	10.0	0.0231	ng/kg	94		78-144		
2378-TCDF	1.00	U	1.00	0.0380	ng/kg	96		75-158		
12378-PeCDF	0.0310	J	5.00	0.0186	ng/kg	94		80-134		
23478-PeCDF	5.00	U	5.00	0.0170	ng/kg	94		68-160		
123478-HxCDF	0.0161	J	5.00	0.0154	ng/kg	94		72-134		
123678-HxCDF	0.0232	J	5.00	0.0145	ng/kg	97		84-130		
123789-HxCDF	0.0688	J	5.00	0.0153	ng/kg	96		78-130		
234678-HxCDF	5.00	U	5.00	0.0144	ng/kg	97		70-156		
1234678-HpCDF	0.0437	J	5.00	0.00760	ng/kg	96		82-122		
1234789-HpCDF	0.0211	J	5.00	0.00960	ng/kg	96		78-138		
OCDF	0.125	J	10.0	0.0251	ng/kg	94		63-170		
TEQ WHO 2005 - EDLx0.0	0.0131				ng/kg					

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 13348SLG026	Sample number(s): 7307344-7307345,7307347-7307351,7307353-7307354 UNSPK: 7307349								
Acenaphthene	84	90	48-127	7	30				

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1439666
Reported: 12/31/13 at 02:32 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
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Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Acenaphthylene	84	90	49-121	7	30				
Anthracene	84	94	52-126	11	30				
Benzo(a)anthracene	90	99	44-143	10	30				
Benzo(a)pyrene	80	101	44-140	23	30				
Benzo(b)fluoranthene	99	134	26-142	29	30				
Benzo(e)pyrene	81	101	70-130	23	30				
Benzo(g,h,i)perylene	40	48	33-141	18	30				
Benzo(k)fluoranthene	94	114	54-142	20	30				
Butylbenzylphthalate	98	115	49-151	16	30				
Di-n-butylphthalate	89	98	52-147	9	30				
Chrysene	88	106	29-148	18	30				
Dibenz(a,h)anthracene	50	57	20-137	13	30				
Diethylphthalate	90	99	43-145	10	30				
Dimethylphthalate	93	104	58-129	12	30				
Bis(2-Ethylhexyl)phthalate	101	124	39-167	21	30				
Fluoranthene	84	101	40-148	18	30				
Fluorene	87	95	51-137	10	30				
Indeno(1,2,3-cd)pyrene	48	57	17-136	18	30				
1-Methylnaphthalene	100	115	50-131	14	30				
2-Methylnaphthalene	96	112	35-152	15	30				
Naphthalene	87	112	31-148	24	30				
N-Nitrosodimethylamine	82	95	48-113	15	30				
Di-n-octylphthalate	134	171*	52-162	25	30				
Phenanthrene	84	106	29-142	23	30				
Pyrene	90	111	26-143	21	30				
Batch number: 133470015A	Sample number(s): 7307342-7307343 UNSPK: P300108								
Aldrin	104	103	16-126	1	50				
Alpha BHC	108	111	14-140	3	50				
Beta BHC	106	107	42-133	1	50				
Gamma BHC - Lindane	114	117	30-137	2	50				
p,p-DDD	111	112	43-149	1	50				
p,p-DDE	114	116	35-152	2	50				
p,p-DDT	115	116	12-193	1	50				
Delta BHC	110	112	13-153	1	50				
Dieldrin	104	106	41-153	2	50				
Endosulfan I	88	90	26-146	1	50				
Endosulfan II	94	96	34-141	3	50				
Endosulfan Sulfate	111	111	10-181	0	50				
Endrin	102	104	30-152	2	50				
Endrin Aldehyde	96	98	23-138	2	50				
Endrin Ketone	103	103	30-148	0	50				
Heptachlor	101	101	16-152	0	50				
Heptachlor Epoxide	103	107	33-144	4	50				
Methoxychlor	108	109	41-161	1	50				
Batch number: 133500024A	Sample number(s): 7307344-7307351,7307353-7307354 UNSPK: 7307349								
EFH (C12-C14)	101	94	49-123	8	20				
EFH (C15-C20)	75	15*	49-123	40*	20				
EFH (C21-C30)	-40 (2)	-175 (2)	49-123	40*	20				
EFH (C30-C40)	-178	-294	49-123	23*	20				

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1439666
Reported: 12/31/13 at 02:32 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
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Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
EFH (C8-C11)	79	82	49-123	4	20				
Batch number: 133470637001	Sample number(s): 7307344-7307345 UNSPK: P301926 BKG: P301926								
Aluminum	1409 (2)	1052 (2)	75-125	5	20	11,200	9,940	12	20
Antimony	63*	62*	75-125	1	20	3.92 U	3.92 U	0 (1)	20
Arsenic	104	98	75-125	4	20	3.00 J	2.85 J	5 (1)	20
Barium	104	101	75-125	2	20	66.1	63.8	4	20
Beryllium	104	102	75-125	2	20	0.441 J	0.393 J	12 (1)	20
Boron	97	95	75-125	1	20	4.43 J	4.34 J	2 (1)	20
Cadmium	102	98	75-125	3	20	0.414 J	0.389 J	6 (1)	20
Calcium	252 (2)	220 (2)	75-125	2	20	4,690	4,740	1	20
Chromium	101	92	75-125	5	20	15.5	15.0	3	20
Cobalt	100	97	75-125	3	20	4.44	4.03	10 (1)	20
Copper	100	97	75-125	2	20	4.45	4.03	10 (1)	20
Iron	1112 (2)	38 (2)	75-125	6	20	17,100	15,900	7	20
Lead	104	94	75-125	5	20	13.7	12.4	10 (1)	20
Lithium	105	101	75-125	3	20	21.0	19.2	9 (1)	20
Magnesium	233 (2)	129 (2)	75-125	5	20	3,920	3,720	5	20
Manganese	141 (2)	114 (2)	75-125	4	20	262	240	8	20
Molybdenum	95	93	75-125	2	20	0.924 J	0.381 J	83* (1)	20
Nickel	103	99	75-125	3	20	9.93	9.06	9 (1)	20
Phosphorus	85 (2)	56 (2)	75-125	6	20	399	358	11	20
Potassium	124	109	75-125	3	20	3,230	3,040	6	20
Sodium	100	97	75-125	3	20	72.5 J	68.1 J	6 (1)	20
Tin	89	87	75-125	2	20	2.63 J	2.73 J	4 (1)	20
Titanium	293 (2)	271 (2)	75-125	2	20	934	817	13	20
Vanadium	103	97	75-125	4	20	28.8	26.5	9	20
Zinc	106	100	75-125	3	20	52.9	49.8	6	20
Zirconium	90	87	75-125	3	20	1.54 J	1.46 J	5 (1)	20
Batch number: 133470637001A	Sample number(s): 7307344-7307345 UNSPK: P301926 BKG: P301926								
Silver	105	102	75-125	2	20	0.186 J	0.204	9 (1)	20
Strontium	124	196*	75-125	16	20	23.4	24.1	3	20
Thallium	97	98	75-125	1	20	0.197	0.188 J	4 (1)	20
Batch number: 133470637001B	Sample number(s): 7307344-7307345 UNSPK: P301926 BKG: P301926								
Selenium	104	110	75-125	5	20	0.188 J	0.188 J	0 (1)	20
Batch number: 133470638001	Sample number(s): 7307344-7307345 UNSPK: P301926 BKG: P301926								
3a Mercury 7471A	95	112	65-135	8	20	0.169	0.151	11	20
Batch number: 13353347201A	Sample number(s): 7307347-7307350,7307352-7307354 UNSPK: 7307349 BKG: 7307349								
1a Anions by 300.0 - Nitrate	129*		80-120			0.67 J	0.81	19 (1)	20
Batch number: 13344039402A	Sample number(s): 7307344-7307345 BKG: 7307345								
15a pH by 9045D						7.09	6.95	2	3
Batch number: 13351162401A	Sample number(s): 7307342-7307354 BKG: 7307349								
14a Moisture Content by 160.3						4.6	4.6	1	20

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Sample Matrix Quality Control

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Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
14a Moisture Content by 160.3						4.6	4.6	1	20
14a Moisture Content by 160.3						4.6	4.6	1	20

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 7a SVOC SIM EPA 8270D
Batch number: 13348SLG026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
7307344	84	87	106
7307345	81	81	97
7307347	75	73	92
7307348	79	82	99
7307349	84	82	105
7307350	74	68	93
7307351	81	81	102
7307353	74	73	92
7307354	73	71	90
Blank	82	88	101
LCS	84	86	101
MS	74	68	93
MSD	81	81	102
Limits:	54-129	59-125	61-125

Analysis Name: 11b TPH by EPA 8015B GRO
Batch number: 13346A20A

	Trifluorotoluene-F
7307341	77
Blank	81
LCS	86
LCSD	88
Limits:	63-135

Analysis Name: 11a TPH by EPA 8015B GRO
Batch number: 13347A16A

	Trifluorotoluene-F
7307345	90
7307354	82
Blank	90
LCS	96

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Surrogate Quality Control

LCSD	99					
Limits:	50-142					

Analysis Name: 20a Pesticides by EPA 8081B
Batch number: 133470015A

	Tetrachloro-m-xylene	Decachlorobiphenyl
7307342	84	94
7307343	79	86
Blank	100	111
LCS	109	120
MS	101	115
MSD	107	116
Limits:	50-130	20-120

Analysis Name: 10a TPH by EPA 8015B (DRO)
Batch number: 133500024A

	Chlorobenzene	Orthoterphenyl
7307344	82	85
7307345	84	90
7307346	90	96
7307347	85	86
7307348	79	83
7307349	84	89
7307350	83	81
7307351	86	89
7307353	81	86
7307354	88	90
Blank	87	90
LCS	86	91
MS	83	81
MSD	86	89
Limits:	37-125	66-123

Analysis Name: 23a Dioxin/Furan by EPA 1613B
Batch number: 13348002

	13C12-2378-TCDD	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF	13C12-234678-HxCDF	13C12-123789-HxCDF
7307344	55	59	71	72	70	70
7307345	57	66	73	75	74	77
Blank	52	57	65	68	68	71
OPR	53	61	68	72	71	72
Limits:	25-164	21-178	26-152	26-123	28-136	29-147

	13C12-1234678-HpCDF	13C12-1234789-HpCDF	13C12-OCDF	13C12-12378-PeCDD	13C12-123478-HxCDD	13C12-123678-HxCDD
7307344	83	75	85	60	74	74
7307345	87	82	88	70	81	81
Blank	82	74	79	61	74	73
OPR	88	74	76	66	76	77

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Surrogate Quality Control

	13C12-123789-HxCDD	13C12-1234678-HpCDD	13C12-OCDD	13C12-2378-TCDF	13C12-12378-PeCDF	
Limits:	28-143	26-138	17-157	25-181	32-141	28-130
7307344	74	79	90	53	58	
7307345	82	90	96	54	64	
Blank	75	81	87	49	55	
OPR	77	83	87	49	61	
Limits:	28-130	23-140	17-157	24-169	24-185	

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SSFL Phase 3 Chain of Custody

A-13013

CDM Smith

DateShipped: 12/9/2013 G-1439666

CarrierName: FedEx S-7307341-54

AirbillNo: 797351083442

Contact Name: Pam Hartman

Contact Phone: (818)466-8007

COC No: 20131209-01

Cooler #: 1

Lab: Lancaster

Lab Phone: 717-556-7259

Lab Address: 2425 New Holland Pike, Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Total Nitrogen ASTM D5373	TOC ASTM D5310	Grain Size ASTM 2488-09a	Other Analysis/Notes
TB-120913	12/9/13 08:00	WQ	HCl	3 - 40 mL Vial	10 day																				X															
SL-514-NBZ-SB-0.0-0.5	12/9/13 12:00	SO	None	1 - SS-Sleeve	10 day																	X																		
SL-515-NBZ-SB-0.0-0.5	12/9/13 13:00	SO	None	1 - SS-Sleeve	10 day																	X																		
SL-516-NBZ-SB-0.0-0.5	12/9/13 10:30	SO	None	2 - SS-Sleeve	10 day	X	X					X		X												X														
SL-516-NBZ-SB-0.0-0.5	12/9/13 10:30	SO	None	1 - 4 oz glass	10 day													X																						
SL-516-NBZ-SB-4.0-5.0 -	12/9/13 11:00	SO	None	2 - SS-Sleeve	10 day	X	X					X		X												X														
SL-516-NBZ-SB-4.0-5.0	12/9/13 11:00	SO	None	1 - 4 oz glass	10 day													X																						
SL-516-NBZ-SB-4.0-5.0	12/9/13 11:00	SO	None	2 - Encore	10 day																				X															
SL-513-NBZ-SB-0.0-0.5	12/9/13 10:10	SO	None	1 - SS-Sleeve	10 day																					X														
SL-522-NBZ-SB-0.0-0.5	12/9/13 11:05	SO	None	1 - SS-Sleeve	10 day							X														X				X										
SL-523-NBZ-SB-0.0-0.5	12/9/13 12:45	SO	None	1 - SS-Sleeve	10 day							X														X				X										
SL-524-NBZ-SB-0.0-0.5MS	12/9/13 13:40	SO	None	3 - SS-Sleeve	10 day							X														X				X										MS/MSD
SL-824-NBZ-SB-0.0-0.5	12/9/13 14:30	SO	None	1 - SS-Sleeve	10 day							X														X				X										
SL-522-NBZ-SB-2.5-3.5	12/9/13 11:40	SO	None	1 - 16 oz glass	10 day							X														X				X										
SL-522-NBZ-SB-2.5-3.5	12/9/13 11:40	SO	None	2 - Encore	10 day																				X															

Special Instructions:

Sampler: [signature]

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
[signature]	12/09/2013	1600									
									[signature]	12/10/13	1135

COC Rev 3

COC 20131209-01, Page 1 of 1

1 of 1

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G-1439666

Environmental Sample Administration
Receipt Documentation Log

Client/Project: CDM

Date of Receipt: 12/10/13

Time of Receipt: 1135

Source Code: SC-1

Shipping Container Sealed: YES NO

Custody Seal Present * : YES NO

* Custody seal was intact unless otherwise noted in the discrepancy section

Package: Chilled Not Chilled

Temperature of Shipping Containers							
Cooler #	Thermometer ID	Temperature (°C)	Temp Bottle (TB) or Surface Temp (ST)	Wet Ice (WI) or Dry Ice (DI) or Ice Packs (IP)	Ice Present? Y/N	Loose (L) Bagged Ice (B) or NA	Comments
1	DT121	0.8	TB	WI	Y	B	
2							
3							
4							
5							
6							

Number of Trip Blanks received NOT listed on chain of custody: 0

Paperwork Discrepancy/Unpacking Problems:

Unpacker Signature/Emp#: 2308 **Date/Time:** 12/10/13 1230

Issued by Dept. 6042 Management

2174.06

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Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	**BMQL**	Below Minimum Quantitation Level
N.D.	none detected	**MPN**	Most Probable Number
TNTC	Too Numerous To Count	**CP Units**	cobalt-chloroplatinate units
IU	International Units	**NTU**	nephelometric turbidity units
umhos/cm	micromhos/cm	**ng**	nanogram(s)
C	degrees Celsius	**F**	degrees Fahrenheit
meq	milliequivalents	**lb.**	pound(s)
g	gram(s)	**kg**	kilogram(s)
µg	microgram(s)	**mg**	milligram(s)
mL	milliliter(s)	**L**	liter(s)
m3	cubic meter(s)	**µL**	microliter(s)
		pg/L	picogram/liter

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Data Qualifiers:

C – result confirmed by reanalysis.

J - estimated value – The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
C	Pesticide result confirmed by GC/MS
D	Compound quantitated on a diluted sample
E	Concentration exceeds the calibration range of the instrument
N	Presumptive evidence of a compound (TICs only)
P	Concentration difference between primary and confirmation columns >25%
U	Compound was not detected
X,Y,Z	Defined in case narrative

Inorganic Qualifiers

B	Value is <CRDL, but ≥IDL
E	Estimated due to interference
M	Duplicate injection precision not met
N	Spike sample not within control limits
S	Method of standard additions (MSA) used for calculation
U	Compound was not detected
W	Post digestion spike out of control limits
*****	Duplicate analysis not within control limits
+	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as “analyze immediately” are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

December 16, 2013

Project: SSFL Phase 3 Sampling

Submittal Date: 12/11/2013
Group Number: 1439898
SDG: PH143
PO Number: 1204-002-001-AL
State of Sample Origin: CA

Client Sample Description	Lancaster Labs (LL) #
SL-553-NBZ-SB-0.0-0.5 Soil	7308297
SL-554-NBZ-SB-0.0-0.5 Soil	7308298
SL-555-NBZ-SB-0.0-0.5 Soil	7308299

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO Eurofins Lancaster Labs Env Attn: Nicole Maljovec

Respectfully Submitted,

Nicole L. Maljovec
Principal Specialist Group Leader

(717) 556-7259

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Lancaster Laboratories Environmental
2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Analysis Report

Sample Description: SL-553-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7308297
LL Group # 1439898
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/10/2013 11:25

Submitted: 12/11/2013 09:50
Reported: 12/16/2013 17:03

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

553NB SDG#: PH143-01

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs	**SW-846 8082A**		**ug/kg**		**ug/kg**	**ug/kg**	
13099	Aroclor 5432	63496-31-1	35	U	35	11	1
13099	Aroclor 5442	12642-23-8	35	U	35	11	1
13099	Aroclor 5460	11126-42-4	35	U	35	11	1
13099	PCB-1016	12674-11-2	18	U	18	3.5	1
13099	PCB-1221	11104-28-2	18	U	18	5.5	1
13099	PCB-1232	11141-16-5	18	U	18	4.4	1
13099	PCB-1242	53469-21-9	18	U	18	4.4	1
13099	PCB-1248	12672-29-6	18	U	18	3.5	1
13099	PCB-1254	11097-69-1	18	U	18	4.7	1
13099	PCB-1260	11096-82-5	18	U	18	4.2	1
13099	PCB-1262	37324-23-5	18	U	18	3.5	1
13099	PCB-1268	11100-14-4	18	U	18	3.5	1
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	6.9		0.10	0.10	1

Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	133480008A	12/16/2013 12:12	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	133480008A	12/15/2013 20:30	Karen L Beyer	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13347162401B	12/13/2013 22:59	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

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Lancaster Laboratories Environmental
2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Analysis Report

Sample Description: SL-554-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7308298
LL Group # 1439898
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/10/2013 10:35

Submitted: 12/11/2013 09:50
Reported: 12/16/2013 17:03

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

554NB SDG#: PH143-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs	**SW-846 8082A**		ug/kg		ug/kg	ug/kg	
13099	Aroclor 5432	63496-31-1	33	U	33	10	1
13099	Aroclor 5442	12642-23-8	33	U	33	10	1
13099	Aroclor 5460	11126-42-4	33	U	33	10	1
13099	PCB-1016	12674-11-2	17	U	17	3.3	1
13099	PCB-1221	11104-28-2	17	U	17	5.2	1
13099	PCB-1232	11141-16-5	17	U	17	4.1	1
13099	PCB-1242	53469-21-9	17	U	17	4.1	1
13099	PCB-1248	12672-29-6	17	U	17	3.3	1
13099	PCB-1254	11097-69-1	17	U	17	4.5	1
13099	PCB-1260	11096-82-5	17	U	17	3.9	1
13099	PCB-1262	37324-23-5	17	U	17	3.3	1
13099	PCB-1268	11100-14-4	17	U	17	3.3	1
Wet Chemistry	**EPA 160.3 modified**		%		%	%	
11624	14a Moisture Content by 160.3	n.a.	1.2		0.10	0.10	1

Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	133480008A	12/16/2013 12:30	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	133480008A	12/15/2013 20:30	Karen L Beyer	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13347162401B	12/13/2013 22:59	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

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Lancaster Laboratories Environmental
2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Analysis Report

Sample Description: SL-555-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7308299
LL Group # 1439898
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/10/2013 10:05

Submitted: 12/11/2013 09:50
Reported: 12/16/2013 17:03

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

555NB SDG#: PH143-03*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs	**SW-846 8082A**		ug/kg		ug/kg	ug/kg	
13099	Aroclor 5432	63496-31-1	35	U	35	10	1
13099	Aroclor 5442	12642-23-8	35	U	35	10	1
13099	Aroclor 5460	11126-42-4	35	U	35	10	1
13099	PCB-1016	12674-11-2	18	U	18	3.5	1
13099	PCB-1221	11104-28-2	18	U	18	5.3	1
13099	PCB-1232	11141-16-5	18	U	18	4.3	1
13099	PCB-1242	53469-21-9	18	U	18	4.3	1
13099	PCB-1248	12672-29-6	18	U	18	3.5	1
13099	PCB-1254	11097-69-1	18	U	18	4.6	1
13099	PCB-1260	11096-82-5	18	U	18	4.1	1
13099	PCB-1262	37324-23-5	18	U	18	3.5	1
13099	PCB-1268	11100-14-4	18	U	18	3.5	1
Wet Chemistry	**EPA 160.3 modified**		%		%	%	
11624	14a Moisture Content by 160.3	n.a.	4.7		0.10	0.10	1

Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	133480008A	12/16/2013 12:49	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	133480008A	12/15/2013 20:30	Karen L Beyer	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13347162401B	12/13/2013 22:59	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1439898
Reported: 12/16/13 at 05:03 PM

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 133480008A	Sample number(s): 7308297-7308299									
Aroclor 5432	33	U	33.	10	ug/kg					
Aroclor 5442	33	U	33.	10	ug/kg	67	86	36-106	24	30
Aroclor 5460	33	U	33.	10	ug/kg					
PCB-1016	17	U	17.	3.3	ug/kg	105		82-116		
PCB-1221	17	U	17.	5.1	ug/kg					
PCB-1232	17	U	17.	4.1	ug/kg					
PCB-1242	17	U	17.	4.1	ug/kg					
PCB-1248	17	U	17.	3.3	ug/kg					
PCB-1254	17	U	17.	4.4	ug/kg					
PCB-1260	17	U	17.	3.9	ug/kg	114		84-125		
PCB-1262	17	U	17.	3.3	ug/kg					
PCB-1268	17	U	17.	3.3	ug/kg					
Batch number: 13347162401B	Sample number(s): 7308297-7308299									
14a Moisture Content by 160.3						99		80-120		

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 133480008A	Sample number(s): 7308297-7308299 UNSPK: P306308								
PCB-1016	95	95	41-135	0	50				
PCB-1260	100	97	40-134	2	50				
Batch number: 13347162401B	Sample number(s): 7308297-7308299 BKG: 7308297								
14a Moisture Content by 160.3						6.9	6.1	12	20

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 19a PCBs and PCTs 8082A
Batch number: 133480008A

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1439898
Reported: 12/16/13 at 05:03 PM

Surrogate Quality Control

	Tetrachloro-m-xylene	Decachlorobiphenyl
7308297	86	78
7308298	119	109
7308299	110	99
Blank	124*	118
LCS	122*	114
LCSD	123*	118
MS	113	101
MSD	111	96
Limits:	45-120	45-120

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

13013 1439898 7308297-99

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 12/10/2013
CarrierName: FedEx
AirbillNo: 797362493901

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20131210-01
Cooler #: 1
Lab: Lancaster
Lab Phone: 717-556-7259
Lab Address: 2425 New Holland Pike, Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Total Nitrogen ASTM D5373	TOC ASTM D5310	Grain Size ASTM 2488-09a	Other Analysis/Notes
SL-553-NBZ-SB-0.0-0.5	12/10/13 11:25	SO	None	1 - SS-Sleeve	10 day										X																									
SL-554-NBZ-SB-0.0-0.5	12/10/13 10:35	SO	None	1 - SS-Sleeve	10 day										X																									
SL-555-NBZ-SB-0.0-0.5	12/10/13 10:05	SO	None	1 - SS-Sleeve	10 day										X																									

Special Instructions:

Sampler: [signature]

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
[signature]	12/10/2013	1600									
									[signature]	12/11/13	0850

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Environmental Sample Administration Receipt Documentation Log

1439898

Client/Project: CDM Smith

Date of Receipt: 12/11/13

Time of Receipt: 0950

Source Code: 50-1

Shipping Container Sealed: YES NO

Custody Seal Present * : YES NO

* Custody seal was intact unless otherwise noted in the discrepancy section

Package: Chilled Not Chilled

Temperature of Shipping Containers							
Cooler #	Thermometer ID	Temperature (°C)	Temp Bottle (TB) or Surface Temp (ST)	Wet Ice (WI) or Dry Ice (DI) or Ice Packs (IP)	Ice Present? Y/N	Loose (L) Bagged Ice (B) or NA	Comments
1	DT46	0.5	TB	WI	Y	B	
2	↓	0.6	↓	↓	↓	↓	
3							
4							
5							
6							

Number of Trip Blanks received NOT listed on chain of custody: Ø

Paperwork Discrepancy/Unpacking Problems:

Unpacker Signature/Emp#: [illegible] 3647 **Date/Time:** 12/11/13 1025

Issued by Dept. 6042 Management

2174.06

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Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	**BMQL**	Below Minimum Quantitation Level
N.D.	none detected	**MPN**	Most Probable Number
TNTC	Too Numerous To Count	**CP Units**	cobalt-chloroplatinate units
IU	International Units	**NTU**	nephelometric turbidity units
umhos/cm	micromhos/cm	**ng**	nanogram(s)
C	degrees Celsius	**F**	degrees Fahrenheit
meq	milliequivalents	**lb.**	pound(s)
g	gram(s)	**kg**	kilogram(s)
µg	microgram(s)	**mg**	milligram(s)
mL	milliliter(s)	**L**	liter(s)
m3	cubic meter(s)	**µL**	microliter(s)
		pg/L	picogram/liter

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Data Qualifiers:

C – result confirmed by reanalysis.

J - estimated value – The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	**B**	Value is <CRDL, but ≥IDL
B	Analyte was also detected in the blank	**E**	Estimated due to interference
C	Pesticide result confirmed by GC/MS	**M**	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	**N**	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	**S**	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	**U**	Compound was not detected
P	Concentration difference between primary and confirmation columns >25%	**W**	Post digestion spike out of control limits
U	Compound was not detected	*****	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	**+**	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as “analyze immediately” are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

January 03, 2014

Project: SSFL Phase 3 Sampling

Submittal Date: 12/12/2013
Group Number: 1440439
SDG: PH146
PO Number: 1204-002-001-AL
State of Sample Origin: CA

Client Sample Description	Lancaster Labs (LL) #
SL-552-NBZ-SB-0.0-0.5 Soil	7310856
SL-552-NBZ-SB-2.0-3.0 Soil	7310857
EB1-121113 Water	7310858
EB2-121113 Water	7310859

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO Eurofins Lancaster Labs Env Attn: Nicole Maljovec

Respectfully Submitted,

Nicole L. Maljovec
Principal Specialist Group Leader

(717) 556-7259

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Lancaster Laboratories Environmental
2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Analysis Report

Sample Description: SL-552-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7310856
LL Group # 1440439
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/11/2013 14:15

Submitted: 12/12/2013 09:45
Reported: 01/03/2014 09:15

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

55200 SDG#: PH146-01

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	17	U	17	6.8	10
12969	Acenaphthylene	208-96-8	17	U	17	3.4	10
12969	Anthracene	120-12-7	17	U	17	3.4	10
12969	Benzo(a)anthracene	56-55-3	17	U	17	6.8	10
12969	Benzo(a)pyrene	50-32-8	17	U	17	6.8	10
12969	Benzo(b)fluoranthene	205-99-2	17	U	17	6.8	10
12969	Benzo(e)pyrene	192-97-2	170	U	170	34	10
12969	Benzo(g,h,i)perylene	191-24-2	17	U	17	6.8	10
12969	Benzo(k)fluoranthene	207-08-9	17	U	17	6.8	10
12969	Butylbenzylphthalate	85-68-7	180	U	180	61	10
12969	Di-n-butylphthalate	84-74-2	180	U	180	61	10
12969	Chrysene	218-01-9	8.2	J	17	3.4	10
12969	Dibenz(a,h)anthracene	53-70-3	17	U	17	6.8	10
12969	Diethylphthalate	84-66-2	180	U	180	61	10
12969	Dimethylphthalate	131-11-3	180	U	180	61	10
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	74	J	180	61	10
12969	Fluoranthene	206-44-0	17	U	17	6.8	10
12969	Fluorene	86-73-7	17	U	17	6.8	10
12969	Indeno(1,2,3-cd)pyrene	193-39-5	17	U	17	6.8	10
12969	1-Methylnaphthalene	90-12-0	17	U	17	6.8	10
12969	2-Methylnaphthalene	91-57-6	6.8	J	17	6.8	10
12969	Naphthalene	91-20-3	21		17	6.8	10
12969	N-Nitrosodimethylamine	62-75-9	17	U	17	6.8	10
12969	Di-n-octylphthalate	117-84-0	180	U	180	61	10
12969	Phenanthrene	85-01-8	8.2	J	17	6.8	10
12969	Pyrene	129-00-0	17	U	17	6.8	10
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	3.0		0.10	0.10	1

Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13352SLF026	12/29/2013 15:02	Mark A Clark	10
10811	BNA Soil Microwave SIM	SW-846 3546	1	13352SLF026	12/19/2013 09:00	Anna E Stager	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13352162401A	12/18/2013 21:53	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-552-NBZ-SB-2.0-3.0 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7310857
LL Group # 1440439
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/11/2013 15:00

Submitted: 12/12/2013 09:45
Reported: 01/03/2014 09:15

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

55223 SDG#: PH146-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		ug/kg		ug/kg	ug/kg	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.68	1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.34	1
12969	Anthracene	120-12-7	1.7	U	1.7	0.34	1
12969	Benzo(a)anthracene	56-55-3	0.76	J	1.7	0.68	1
12969	Benzo(a)pyrene	50-32-8	1.7	U	1.7	0.68	1
12969	Benzo(b)fluoranthene	205-99-2	0.96	J	1.7	0.68	1
12969	Benzo(e)pyrene	192-97-2	17	U	17	3.4	1
12969	Benzo(g,h,i)perylene	191-24-2	1.7	U	1.7	0.68	1
12969	Benzo(k)fluoranthene	207-08-9	1.7	U	1.7	0.68	1
12969	Butylbenzylphthalate	85-68-7	58		18	6.1	1
12969	Di-n-butylphthalate	84-74-2	18	U	18	6.1	1
12969	Chrysene	218-01-9	1.3	J	1.7	0.34	1
12969	Dibenz(a,h)anthracene	53-70-3	1.7	U	1.7	0.68	1
12969	Diethylphthalate	84-66-2	18	U	18	6.1	1
12969	Dimethylphthalate	131-11-3	18	U	18	6.1	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	16	J	18	6.1	1
12969	Fluoranthene	206-44-0	0.75	J	1.7	0.68	1
12969	Fluorene	86-73-7	1.7	U	1.7	0.68	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.7	U	1.7	0.68	1
12969	1-Methylnaphthalene	90-12-0	1.7	U	1.7	0.68	1
12969	2-Methylnaphthalene	91-57-6	0.88	J	1.7	0.68	1
12969	Naphthalene	91-20-3	2.6		1.7	0.68	1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.68	1
12969	Di-n-octylphthalate	117-84-0	18	U	18	6.1	1
12969	Phenanthrene	85-01-8	0.75	J	1.7	0.68	1
12969	Pyrene	129-00-0	0.73	J	1.7	0.68	1
Wet Chemistry	**EPA 160.3 modified**		%		%	%	
11624	14a Moisture Content by 160.3	n.a.	2.6		0.10	0.10	1

Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13352SLF026	12/31/2013 08:12	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	13352SLF026	12/19/2013 09:00	Anna E Stager	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13352162401A	12/18/2013 21:53	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: EB1-121113 Water
SSFL Phase 3 Subarea NBZ

LL Sample # WW 7310858
LL Group # 1440439
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/11/2013 14:00 by PH

Submitted: 12/12/2013 09:45
Reported: 01/03/2014 09:15

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

NBEB1 SDG#: PH146-03EB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/l**		**ug/l**	**ug/l**	
12971	Acenaphthene	83-32-9	0.050	U	0.050	0.010	1
12971	Acenaphthylene	208-96-8	0.050	U	0.050	0.010	1
12971	Anthracene	120-12-7	0.050	U	0.050	0.010	1
12971	Benzo(a)anthracene	56-55-3	0.050	U	0.050	0.010	1
12971	Benzo(a)pyrene	50-32-8	0.050	U	0.050	0.010	1
12971	Benzo(b)fluoranthene	205-99-2	0.050	U	0.050	0.010	1
12971	Benzo(e)pyrene	192-97-2	0.050	U	0.050	0.010	1
12971	Benzo(g,h,i)perylene	191-24-2	0.050	U	0.050	0.010	1
12971	Benzo(k)fluoranthene	207-08-9	0.050	U	0.050	0.010	1
12971	Butylbenzylphthalate	85-68-7	1.0	U	1.0	0.050	1
12971	Di-n-butylphthalate	84-74-2	0.13	J	1.0	0.050	1
12971	Chrysene	218-01-9	0.050	U	0.050	0.010	1
12971	Dibenz(a,h)anthracene	53-70-3	0.050	U	0.050	0.010	1
12971	Diethylphthalate	84-66-2	0.15	J	1.0	0.050	1
12971	Dimethylphthalate	131-11-3	1.0	U	1.0	0.050	1
12971	Bis(2-Ethylhexyl)phthalate	117-81-7	2.2		1.0	0.050	1
12971	Fluoranthene	206-44-0	0.050	U	0.050	0.010	1
12971	Fluorene	86-73-7	0.050	U	0.050	0.010	1
12971	Indeno(1,2,3-cd)pyrene	193-39-5	0.050	U	0.050	0.010	1
12971	1-Methylnaphthalene	90-12-0	0.050	U	0.050	0.010	1
12971	2-Methylnaphthalene	91-57-6	0.050	U	0.050	0.010	1
12971	Naphthalene	91-20-3	0.050	U	0.050	0.030	1
12971	N-Nitrosodimethylamine	62-75-9	0.050	U	0.050	0.010	1
12971	Di-n-octylphthalate	117-84-0	1.0	U	1.0	0.050	1
12971	Phenanthrene	85-01-8	0.050	U	0.050	0.030	1
12971	Pyrene	129-00-0	0.050	U	0.050	0.010	1

Target analytes were detected in the method blank associated with the samples as noted on the QC Summary. Since the result is within the acceptance range allowed by the method, the data is reported.

GC Volatiles	**TPH GRO SW-8015B**		**ug/l**		**ug/l**	**ug/l**	
08229	TPH-GRO S.CA water C5-C12	n.a.	50	U	50	20	1
Pesticides/PCBs	**SW-846 8081B**		**ug/l**		**ug/l**	**ug/l**	
10589	Aldrin	309-00-2	0.0090	U	0.0090	0.0018	1
10589	Alpha BHC	319-84-6	0.0090	U	0.0090	0.0027	1
10589	Beta BHC	319-85-7	0.0090	U	0.0090	0.0030	1
10589	Gamma BHC - Lindane	58-89-9	0.0090	U	0.0090	0.0018	1
10589	Chlordane	57-74-9	0.45	U	0.45	0.14	1
10589	p,p-DDD	72-54-8	0.018	U	0.018	0.0045	1
10589	p,p-DDE	72-55-9	0.018	U	0.018	0.0045	1
10589	p,p-DDT	50-29-3	0.018	U	0.018	0.0047	1
10589	Delta BHC	319-86-8	0.0090	U	0.0090	0.0030	1
10589	Dieldrin	60-57-1	0.018	U	0.018	0.0048	1
10589	Endosulfan I	959-98-8	0.0090	U	0.0090	0.0039	1
10589	Endosulfan II	33213-65-9	0.018	U	0.018	0.013	1
10589	Endosulfan Sulfate	1031-07-8	0.018	U	0.018	0.0052	1
10589	Endrin	72-20-8	0.018	U	0.018	0.0073	1
10589	Endrin Aldehyde	7421-93-4	0.090	U	0.090	0.018	1
10589	Endrin Ketone	53494-70-5	0.018	U	0.018	0.0045	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: EB1-121113 Water
SSFL Phase 3 Subarea NBZ

LL Sample # WW 7310858
LL Group # 1440439
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/11/2013 14:00 by PH

Submitted: 12/12/2013 09:45
Reported: 01/03/2014 09:15

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

NBEB1 SDG#: PH146-03EB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
Pesticides/PCBs	**SW-846 8081B**		**ug/l**	**ug/l**	**ug/l**	
10589	Heptachlor	76-44-8	0.0090 U	0.0090	0.0018	1
10589	Heptachlor Epoxide	1024-57-3	0.0090 U	0.0090	0.0021	1
10589	Methoxychlor	72-43-5	0.090 U	0.090	0.027	1
10589	Mirex	2385-85-5	0.045 U	0.045	0.0090	1
10589	Toxaphene	8001-35-2	0.90 U	0.90	0.27	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/l**	**mg/l**	**mg/l**	
10365	EFH (C12-C14)	n.a.	0.10 U	0.10	0.051	1
10365	EFH (C15-C20)	n.a.	0.10 U	0.10	0.051	1
10365	EFH (C21-C30)	n.a.	0.10 U	0.10	0.051	1
10365	EFH (C30 - C40)	n.a.	0.51 U	0.51	0.10	1
10365	EFH (C8-C11)	n.a.	0.10 U	0.10	0.051	1
Metals	**SW-846 6010C**		**mg/l**	**mg/l**	**mg/l**	
01743	Aluminum	7429-90-5	0.400 U	0.400	0.0828	1
07044	Antimony	7440-36-0	0.0400 U	0.0400	0.0053	1
07035	Arsenic	7440-38-2	0.0400 U	0.0400	0.0068	1
07046	Barium	7440-39-3	0.0100 U	0.0100	0.00033	1
07047	Beryllium	7440-41-7	0.0100 U	0.0100	0.00067	1
08014	Boron	7440-42-8	0.100 U	0.100	0.0084	1
07049	Cadmium	7440-43-9	0.0100 U	0.0100	0.00076	1
01750	Calcium	7440-70-2	0.400 U	0.400	0.0334	1
07051	Chromium	7440-47-3	0.0300 U	0.0300	0.0016	1
07052	Cobalt	7440-48-4	0.0100 U	0.0100	0.0013	1
07053	Copper	7440-50-8	0.0200 U	0.0200	0.0027	1
01754	Iron	7439-89-6	0.400 U	0.400	0.0430	1
07055	Lead	7439-92-1	0.0300 U	0.0300	0.0047	1
01756	Lithium	7439-93-2	0.0400 U	0.0400	0.0047	1
01757	Magnesium	7439-95-4	0.200 U	0.200	0.0167	1
07058	Manganese	7439-96-5	0.0100 U	0.0100	0.00083	1
07060	Molybdenum	7439-98-7	0.0200 U	0.0200	0.0017	1
07061	Nickel	7440-02-0	0.0200 U	0.0200	0.0015	1
10143	Phosphorus	7723-14-0	0.200 U	0.200	0.0418	1
01762	Potassium	7440-09-7	1.00 U	1.00	0.0980	1
01767	Sodium	7440-23-5	2.00 U	2.00	0.167	1
07069	Tin	7440-31-5	0.0400 U	0.0400	0.0029	1
07070	Titanium	7440-32-6	0.0200 U	0.0200	0.0017	1
07071	Vanadium	7440-62-2	0.0100 U	0.0100	0.0020	1
07072	Zinc	7440-66-6	0.0400 U	0.0400	0.0020	1
10144	Zirconium	7440-67-7	0.100 U	0.100	0.0084	1
	SW-846 6020A		**mg/l**	**mg/l**	**mg/l**	
06041	Selenium	7782-49-2	0.0040 U	0.0040	0.00050	1
06042	Silver	7440-22-4	0.0010 U	0.0010	0.00011	1
06044	Strontium	7440-24-6	0.0020 U	0.0020	0.00034	1
06045	Thallium	7440-28-0	0.0010 U	0.0010	0.00015	1
	SW-846 7470A		**mg/l**	**mg/l**	**mg/l**	

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: EB1-121113 Water
SSFL Phase 3 Subarea NBZ

LL Sample # WW 7310858
LL Group # 1440439
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/11/2013 14:00 by PH

Submitted: 12/12/2013 09:45
Reported: 01/03/2014 09:15

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

NBEB1 SDG#: PH146-03EB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
Metals	**SW-846 7470A**		mg/l	mg/l	mg/l	
00259	3b Mercury 7470A	7439-97-6	0.00020 U	0.00020	0.000060	1
Wet Chemistry	**SW-846 9040C**		Std. Units	Std. Units	Std. Units	
12152	28b pH (9040B and 9040C)	n.a.	6.9	0.010	0.010	1

*=This limit was used in the evaluation of the final result

Sample Description: EB1-121113 Water
SSFL Phase 3 Subarea NBZ

LL Sample # WW 7310858
LL Group # 1440439
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/11/2013 14:00 by PH

Submitted: 12/12/2013 09:45
Reported: 01/03/2014 09:15

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

NBEB1 SDG#: PH146-03EB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received MRL*	As Received EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		pg/l		pg/l	pg/l	
10915	2378-TCDD	1746-01-6	1.93	U	1.93	0.585	1
10915	12378-PeCDD	40321-76-4	0.460	JQ	9.65	0.418	1
10915	123478-HxCDD	39227-28-6	0.289	J	9.65	0.237	1
10915	123678-HxCDD	57653-85-7	9.65	U	9.65	0.238	1
10915	123789-HxCDD	19408-74-3	9.65	U	9.65	0.257	1
10915	1234678-HpCDD	35822-46-9	0.464	JBQ	9.65	0.260	1
10915	OCDD	3268-87-9	1.60	JBQ	19.3	0.336	1
10915	2378-TCDF	51207-31-9	0.622	JQ	1.93	0.383	1
10915	12378-PeCDF	57117-41-6	0.447	JBQ	9.65	0.287	1
10915	23478-PeCDF	57117-31-4	0.658	JQ	9.65	0.278	1
10915	123478-HxCDF	70648-26-9	0.255	JBQ	9.65	0.178	1
10915	123678-HxCDF	57117-44-9	0.189	JBQ	9.65	0.184	1
10915	123789-HxCDF	72918-21-9	0.258	JQ	9.65	0.233	1
10915	234678-HxCDF	60851-34-5	9.65	U	9.65	0.175	1
10915	1234678-HpCDF	67562-39-4	0.623	JBQ	9.65	0.132	1
10915	1234789-HpCDF	55673-89-7	0.651	JBQ	9.65	0.159	1
10915	OCDF	39001-02-0	0.666	JBQ	19.3	0.391	1
D/F Toxic Equivalents	**EPA 1613B**		pg/l		pg/l	pg/l	
10915	TEQ WHO 2005 - EDLx0.0	n.a.	0.0289				1

Labeled Compounds	**%Rec**	**Windows**
13C12-2378-TCDD	64	25 - 164
13C12-12378-PeCDD	63	25 - 181
13C12-123478-HxCDD	80	32 - 141
13C12-123678-HxCDD	81	28 - 130
13C12-123789-HxCDD	76	28 - 130
13C12-1234678-HpCDD	81	23 - 140
13C12-OCDD	82	17 - 157
13C12-2378-TCDF	61	24 - 169
13C12-12378-PeCDF	68	24 - 185
13C12-23478-PeCDF	64	21 - 178
13C12-123478-HxCDF	82	26 - 152
13C12-123678-HxCDF	81	26 - 123
13C12-234678-HxCDF	80	28 - 136
13C12-123789-HxCDF	75	29 - 147
13C12-1234678-HpCDF	86	28 - 143
13C12-1234789-HpCDF	77	26 - 138
13C12-OCDF	83	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column

*=This limit was used in the evaluation of the final result

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Lancaster Laboratories
Environmental

Analysis Report

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Sample Description: EB1-121113 Water
SSFL Phase 3 Subarea NBZ

LL Sample # WW 7310858
LL Group # 1440439
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/11/2013 14:00 by PH

Submitted: 12/12/2013 09:45
Reported: 01/03/2014 09:15

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

NBEB1 SDG#: PH146-03EB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received MRL*	As Received EDL	Dilution Factor

Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: EB1-121113 Water
SSFL Phase 3 Subarea NBZ

LL Sample # WW 7310858
LL Group # 1440439
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/11/2013 14:00 by PH

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CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

NBEB1 SDG#: PH146-03EB

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12971	7b SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13348WAG026	12/19/2013 20:44	Chad A Moline	1
10466	BNA Water Extraction SIM	SW-846 3510C	1	13348WAG026	12/16/2013 05:40	Roman Kuropatkin	1
08229	11b TPH by EPA 8015B GRO	TPH GRO SW-8015B	1	13346A20A	12/13/2013 19:58	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	13346A20A	12/13/2013 19:58	Marie D Beamenderfer	1
10589	22b Pesticides by EPA 8081B	SW-846 8081B	1	133510021A	12/19/2013 18:00	Jamie L Brillhart	1
11120	Pesticide Waters Update IV Ext	SW-846 3510C	1	133510021A	12/18/2013 12:00	William H Saadeh	1
10365	10b TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	133520004A	12/19/2013 14:21	Tracy A Cole	1
11203	EFH Waters Extraction	SW-846 3510C	1	133520004A	12/18/2013 18:15	JoElla L Rice	1
10915	17b Dioxin/Furan by EPA 1613B	EPA 1613B	1	13353002	12/21/2013 18:08	Nelson H Risser	1
10914	Dioxins/Furans in Water - SepF	EPA 1613B	1	13353002	12/19/2013 11:15	Brett M Weidman	1
01743	Aluminum	SW-846 6010C	1	133530635003	12/23/2013 13:15	Eric L Eby	1
07044	Antimony	SW-846 6010C	1	133530635003	12/23/2013 13:15	Eric L Eby	1
07035	Arsenic	SW-846 6010C	1	133530635003	12/23/2013 13:15	Eric L Eby	1
07046	Barium	SW-846 6010C	1	133530635003	12/23/2013 13:15	Eric L Eby	1
07047	Beryllium	SW-846 6010C	1	133530635003	12/23/2013 13:15	Eric L Eby	1
08014	Boron	SW-846 6010C	1	133530635003	12/23/2013 13:15	Eric L Eby	1
07049	Cadmium	SW-846 6010C	1	133530635003	12/23/2013 13:15	Eric L Eby	1
01750	Calcium	SW-846 6010C	1	133530635003	12/23/2013 13:15	Eric L Eby	1
07051	Chromium	SW-846 6010C	1	133530635003	12/23/2013 13:15	Eric L Eby	1
07052	Cobalt	SW-846 6010C	1	133530635003	12/23/2013 13:15	Eric L Eby	1
07053	Copper	SW-846 6010C	1	133530635003	12/23/2013 13:15	Eric L Eby	1
01754	Iron	SW-846 6010C	1	133530635003	12/23/2013 13:15	Eric L Eby	1
07055	Lead	SW-846 6010C	1	133530635003	12/23/2013 13:15	Eric L Eby	1
01756	Lithium	SW-846 6010C	1	133530635003	12/23/2013 13:15	Eric L Eby	1
01757	Magnesium	SW-846 6010C	1	133530635003	12/23/2013 13:15	Eric L Eby	1
07058	Manganese	SW-846 6010C	1	133530635003	12/23/2013 13:15	Eric L Eby	1
07060	Molybdenum	SW-846 6010C	1	133530635003	12/23/2013 13:15	Eric L Eby	1
07061	Nickel	SW-846 6010C	1	133530635003	12/23/2013 13:15	Eric L Eby	1
10143	Phosphorus	SW-846 6010C	1	133530635003	12/23/2013 13:15	Eric L Eby	1
01762	Potassium	SW-846 6010C	1	133530635003	12/23/2013 13:15	Eric L Eby	1
01767	Sodium	SW-846 6010C	1	133530635003	12/23/2013 13:15	Eric L Eby	1
07069	Tin	SW-846 6010C	1	133530635003	12/23/2013 13:15	Eric L Eby	1
07070	Titanium	SW-846 6010C	1	133530635003	12/23/2013 13:15	Eric L Eby	1
07071	Vanadium	SW-846 6010C	1	133530635003	12/23/2013 13:15	Eric L Eby	1
07072	Zinc	SW-846 6010C	1	133530635003	12/23/2013 13:15	Eric L Eby	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: EB1-121113 Water
SSFL Phase 3 Subarea NBZ

LL Sample # WW 7310858
LL Group # 1440439
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/11/2013 14:00 by PH

Submitted: 12/12/2013 09:45
Reported: 01/03/2014 09:15

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

NBEB1 SDG#: PH146-03EB

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
10144	Zirconium	SW-846 6010C	1	133530635003	12/23/2013	13:15	Eric L Eby	1
06041	Selenium	SW-846 6020A	1	133530639001B	12/23/2013	21:52	John P Hook	1
06042	Silver	SW-846 6020A	1	133530639001A	12/23/2013	21:52	John P Hook	1
06044	Strontium	SW-846 6020A	1	133530639001A	12/23/2013	21:52	John P Hook	1
06045	Thallium	SW-846 6020A	1	133530639001A	12/23/2013	21:52	John P Hook	1
00259	3b Mercury 7470A	SW-846 7470A	1	133465713005	12/14/2013	08:07	Damary Valentin	1
10635	WW SW846(IV) ICP Dig (tot rec)	SW-846 3005A	1	133530635003	12/21/2013	06:55	James L Mertz	1
10639	ICP/MS SW846 (IV) Water Digest	SW-846 3010A modified	1	133530639001	12/21/2013	07:00	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	133465713005	12/13/2013	15:20	Damary Valentin	1
12152	28b pH (9040B and 9040C)	SW-846 9040C	1	13350002101A	12/16/2013	12:47	Michele L Graham	1

*=This limit was used in the evaluation of the final result

Sample Description: EB2-121113 Water
SSFL Phase 3 Subarea NBZ

LL Sample # WW 7310859
LL Group # 1440439
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/11/2013 14:30 by PH

Submitted: 12/12/2013 09:45
Reported: 01/03/2014 09:15

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

NBEB2 SDG#: PH146-04EB*

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/l**		**ug/l**	**ug/l**	
12971	Acenaphthene	83-32-9	0.051	U	0.051	0.010	1
12971	Acenaphthylene	208-96-8	0.051	U	0.051	0.010	1
12971	Anthracene	120-12-7	0.051	U	0.051	0.010	1
12971	Benzo(a)anthracene	56-55-3	0.051	U	0.051	0.010	1
12971	Benzo(a)pyrene	50-32-8	0.051	U	0.051	0.010	1
12971	Benzo(b)fluoranthene	205-99-2	0.051	U	0.051	0.010	1
12971	Benzo(e)pyrene	192-97-2	0.051	U	0.051	0.010	1
12971	Benzo(g,h,i)perylene	191-24-2	0.051	U	0.051	0.010	1
12971	Benzo(k)fluoranthene	207-08-9	0.051	U	0.051	0.010	1
12971	Butylbenzylphthalate	85-68-7	1.0	U	1.0	0.051	1
12971	Di-n-butylphthalate	84-74-2	0.13	J	1.0	0.051	1
12971	Chrysene	218-01-9	0.051	U	0.051	0.010	1
12971	Dibenz(a,h)anthracene	53-70-3	0.051	U	0.051	0.010	1
12971	Diethylphthalate	84-66-2	0.16	J	1.0	0.051	1
12971	Dimethylphthalate	131-11-3	1.0	U	1.0	0.051	1
12971	Bis(2-Ethylhexyl)phthalate	117-81-7	0.42	J	1.0	0.051	1
12971	Fluoranthene	206-44-0	0.012	J	0.051	0.010	1
12971	Fluorene	86-73-7	0.051	U	0.051	0.010	1
12971	Indeno(1,2,3-cd)pyrene	193-39-5	0.051	U	0.051	0.010	1
12971	1-Methylnaphthalene	90-12-0	0.051	U	0.051	0.010	1
12971	2-Methylnaphthalene	91-57-6	0.051	U	0.051	0.010	1
12971	Naphthalene	91-20-3	0.051	U	0.051	0.030	1
12971	N-Nitrosodimethylamine	62-75-9	0.051	U	0.051	0.010	1
12971	Di-n-octylphthalate	117-84-0	1.0	U	1.0	0.051	1
12971	Phenanthrene	85-01-8	0.051	U	0.051	0.030	1
12971	Pyrene	129-00-0	0.049	J	0.051	0.010	1

Target analytes were detected in the method blank associated with the samples as noted on the QC Summary. Since the result is within the acceptance range allowed by the method, the data is reported.

GC Volatiles	**TPH GRO SW-8015B**		**ug/l**		**ug/l**	**ug/l**	
08229	TPH-GRO S.CA water C5-C12	n.a.	50	U	50	20	1
Herbicides	**SW-846 8151A**		**ug/l**		**ug/l**	**ug/l**	
10407	2,4-D	94-75-7	0.50	U	0.50	0.16	1
10407	Dalapon	75-99-0	1.2	U	1.2	0.25	1
10407	2,4-DB	94-82-6	1.0	U	1.0	0.30	1
10407	Dicamba	1918-00-9	0.30	U	0.30	0.080	1
10407	Dinoseb	88-85-7	0.50	U	0.50	0.12	1

The QC window for dinoseb is advisory due to the erratic performance of the analyte using this method.

10407	2,4-DP (Dichlorprop)	120-36-5	0.50	U	0.50	0.16	1
10407	MCPA	94-74-6	200	U	200	50	1
10407	MCPP	93-65-2	200	U	200	50	1
10407	2,4,5-T	93-76-5	0.050	U	0.050	0.015	1
10407	2,4,5-TP	93-72-1	0.050	U	0.050	0.010	1
Pesticides/PCBs	**SW-846 8081B**		**ug/l**		**ug/l**	**ug/l**	
10589	Aldrin	309-00-2	0.0082	U	0.0082	0.0016	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: EB2-121113 Water
SSFL Phase 3 Subarea NBZ

LL Sample # WW 7310859
LL Group # 1440439
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/11/2013 14:30 by PH

Submitted: 12/12/2013 09:45
Reported: 01/03/2014 09:15

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

NBEB2 SDG#: PH146-04EB*

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
Pesticides/PCBs	**SW-846 8081B**		**ug/l**	**ug/l**	**ug/l**	
10589	Alpha BHC	319-84-6	0.0082 U	0.0082	0.0025	1
10589	Beta BHC	319-85-7	0.0082 U	0.0082	0.0028	1
10589	Gamma BHC - Lindane	58-89-9	0.0082 U	0.0082	0.0016	1
10589	Chlordane	57-74-9	0.41 U	0.41	0.13	1
10589	p,p-DDD	72-54-8	0.016 U	0.016	0.0041	1
10589	p,p-DDE	72-55-9	0.016 U	0.016	0.0041	1
10589	p,p-DDT	50-29-3	0.016 U	0.016	0.0043	1
10589	Delta BHC	319-86-8	0.0082 U	0.0082	0.0028	1
10589	Dieldrin	60-57-1	0.016 U	0.016	0.0044	1
10589	Endosulfan I	959-98-8	0.0082 U	0.0082	0.0035	1
10589	Endosulfan II	33213-65-9	0.016 U	0.016	0.012	1
10589	Endosulfan Sulfate	1031-07-8	0.016 U	0.016	0.0048	1
10589	Endrin	72-20-8	0.016 U	0.016	0.0067	1
10589	Endrin Aldehyde	7421-93-4	0.082 U	0.082	0.016	1
10589	Endrin Ketone	53494-70-5	0.016 U	0.016	0.0041	1
10589	Heptachlor	76-44-8	0.0082 U	0.0082	0.0016	1
10589	Heptachlor Epoxide	1024-57-3	0.0082 U	0.0082	0.0019	1
10589	Methoxychlor	72-43-5	0.082 U	0.082	0.025	1
10589	Mirex	2385-85-5	0.041 U	0.041	0.0082	1
10589	Toxaphene	8001-35-2	0.82 U	0.82	0.25	1
Pesticides/PCBs	**SW-846 8082A**		**ug/l**	**ug/l**	**ug/l**	
13092	Aroclor 5432	63496-31-1	0.41 U	0.41	0.082	1
13092	Aroclor 5442	12642-23-8	0.41 U	0.41	0.082	1
13092	Aroclor 5460	11126-42-4	0.41 U	0.41	0.091	1
13092	PCB-1016	12674-11-2	0.41 U	0.41	0.082	1
13092	PCB-1221	11104-28-2	0.41 U	0.41	0.082	1
13092	PCB-1232	11141-16-5	0.41 U	0.41	0.16	1
13092	PCB-1242	53469-21-9	0.41 U	0.41	0.082	1
13092	PCB-1248	12672-29-6	0.41 U	0.41	0.082	1
13092	PCB-1254	11097-69-1	0.41 U	0.41	0.082	1
13092	PCB-1260	11096-82-5	0.41 U	0.41	0.12	1
13092	PCB-1262	37324-23-5	0.41 U	0.41	0.16	1
13092	PCB-1268	11100-14-4	0.41 U	0.41	0.13	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/l**	**mg/l**	**mg/l**	
10365	EFH (C12-C14)	n.a.	0.10 U	0.10	0.051	1
10365	EFH (C15-C20)	n.a.	0.10 U	0.10	0.051	1
10365	EFH (C21-C30)	n.a.	0.10 U	0.10	0.051	1
10365	EFH (C30 - C40)	n.a.	0.51 U	0.51	0.10	1
10365	EFH (C8-C11)	n.a.	0.10 U	0.10	0.051	1
Metals	**SW-846 6010C**		**mg/l**	**mg/l**	**mg/l**	
01743	Aluminum	7429-90-5	0.400 U	0.400	0.0828	1
07044	Antimony	7440-36-0	0.0400 U	0.0400	0.0053	1
07035	Arsenic	7440-38-2	0.0400 U	0.0400	0.0068	1
07046	Barium	7440-39-3	0.0100 U	0.0100	0.00033	1
07047	Beryllium	7440-41-7	0.0100 U	0.0100	0.00067	1
08014	Boron	7440-42-8	0.100 U	0.100	0.0084	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: EB2-121113 Water
SSFL Phase 3 Subarea NBZ

LL Sample # WW 7310859
LL Group # 1440439
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/11/2013 14:30 by PH

Submitted: 12/12/2013 09:45
Reported: 01/03/2014 09:15

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

NBEB2 SDG#: PH146-04EB*

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/l**	**mg/l**	**mg/l**	
07049	Cadmium	7440-43-9	0.0100 U	0.0100	0.00076	1
01750	Calcium	7440-70-2	0.400 U	0.400	0.0334	1
07051	Chromium	7440-47-3	0.0300 U	0.0300	0.0016	1
07052	Cobalt	7440-48-4	0.0100 U	0.0100	0.0013	1
07053	Copper	7440-50-8	0.0200 U	0.0200	0.0027	1
01754	Iron	7439-89-6	0.400 U	0.400	0.0430	1
07055	Lead	7439-92-1	0.0300 U	0.0300	0.0047	1
01756	Lithium	7439-93-2	0.0400 U	0.0400	0.0047	1
01757	Magnesium	7439-95-4	0.200 U	0.200	0.0167	1
07058	Manganese	7439-96-5	0.0100 U	0.0100	0.00083	1
07060	Molybdenum	7439-98-7	0.0200 U	0.0200	0.0017	1
07061	Nickel	7440-02-0	0.0200 U	0.0200	0.0015	1
10143	Phosphorus	7723-14-0	0.200 U	0.200	0.0418	1
01762	Potassium	7440-09-7	1.00 U	1.00	0.0980	1
01767	Sodium	7440-23-5	2.00 U	2.00	0.167	1
07069	Tin	7440-31-5	0.0400 U	0.0400	0.0029	1
07070	Titanium	7440-32-6	0.0200 U	0.0200	0.0017	1
07071	Vanadium	7440-62-2	0.0100 U	0.0100	0.0020	1
07072	Zinc	7440-66-6	0.0030 J	0.0400	0.0020	1
10144	Zirconium	7440-67-7	0.100 U	0.100	0.0084	1
	SW-846 6020A		**mg/l**	**mg/l**	**mg/l**	
06041	Selenium	7782-49-2	0.0040 U	0.0040	0.00050	1
06042	Silver	7440-22-4	0.0010 U	0.0010	0.00011	1
06044	Strontium	7440-24-6	0.0020 U	0.0020	0.00034	1
06045	Thallium	7440-28-0	0.0010 U	0.0010	0.00015	1
	SW-846 7470A		**mg/l**	**mg/l**	**mg/l**	
00259	3b Mercury 7470A	7439-97-6	0.00020 U	0.00020	0.000060	1
Wet Chemistry	**EPA 300.0**		**mg/l**	**mg/l**	**mg/l**	
00368	1b Anions by 300.0-Nitrate	14797-55-8	0.10 U	0.10	0.050	1
	SW-846 9040C		**Std. Units**	**Std. Units**	**Std. Units**	
12152	28b pH (9040B and 9040C)	n.a.	6.4	0.010	0.010	1

*=This limit was used in the evaluation of the final result

Sample Description: EB2-121113 Water
SSFL Phase 3 Subarea NBZ

LL Sample # WW 7310859
LL Group # 1440439
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/11/2013 14:30 by PH

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Suite 400
Fairfax VA 22030

NBEB2 SDG#: PH146-04EB*

CAT No.	Analysis Name	CAS Number	As Received Result		As Received MRL*	As Received EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		**pg/l**		**pg/l**	**pg/l**	
10915	2378-TCDD	1746-01-6	1.91	U	1.91	0.491	1
10915	12378-PeCDD	40321-76-4	9.54	U	9.54	0.411	1
10915	123478-HxCDD	39227-28-6	9.54	U	9.54	0.220	1
10915	123678-HxCDD	57653-85-7	0.285	JQ	9.54	0.224	1
10915	123789-HxCDD	19408-74-3	9.54	U	9.54	0.220	1
10915	1234678-HpCDD	35822-46-9	0.464	JBQ	9.54	0.240	1
10915	OCDD	3268-87-9	1.09	JBQ	19.1	0.276	1
10915	2378-TCDF	51207-31-9	1.91	U	1.91	0.358	1
10915	12378-PeCDF	57117-41-6	0.343	JBQ	9.54	0.228	1
10915	23478-PeCDF	57117-31-4	0.258	JQ	9.54	0.214	1
10915	123478-HxCDF	70648-26-9	0.432	JBQ	9.54	0.155	1
10915	123678-HxCDF	57117-44-9	0.318	JBQ	9.54	0.161	1
10915	123789-HxCDF	72918-21-9	9.54	U	9.54	0.176	1
10915	234678-HxCDF	60851-34-5	9.54	U	9.54	0.153	1
10915	1234678-HpCDF	67562-39-4	0.338	JBQ	9.54	0.0932	1
10915	1234789-HpCDF	55673-89-7	0.230	JB	9.54	0.113	1
10915	OCDF	39001-02-0	0.604	JBQ	19.1	0.316	1
D/F Toxic Equivalents	**EPA 1613B**		**pg/l**		**pg/l**	**pg/l**	
10915	TEQ WHO 2005 - EDLx0.0	n.a.	0.00230				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	60	25 - 164
13C12-12378-PeCDD	64	25 - 181
13C12-123478-HxCDD	78	32 - 141
13C12-123678-HxCDD	78	28 - 130
13C12-123789-HxCDD	77	28 - 130
13C12-1234678-HpCDD	83	23 - 140
13C12-OCDD	79	17 - 157
13C12-2378-TCDF	57	24 - 169
13C12-12378-PeCDF	66	24 - 185
13C12-23478-PeCDF	63	21 - 178
13C12-123478-HxCDF	77	26 - 152
13C12-123678-HxCDF	77	26 - 123
13C12-234678-HxCDF	75	28 - 136
13C12-123789-HxCDF	78	29 - 147
13C12-1234678-HpCDF	85	28 - 143
13C12-1234789-HpCDF	78	26 - 138
13C12-OCDF	79	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column

*=This limit was used in the evaluation of the final result

eurofins
Lancaster Laboratories
Environmental

Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: EB2-121113 Water
SSFL Phase 3 Subarea NBZ

LL Sample # WW 7310859
LL Group # 1440439
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/11/2013 14:30 by PH

Submitted: 12/12/2013 09:45
Reported: 01/03/2014 09:15

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

NBEB2 SDG#: PH146-04EB*

CAT No.	Analysis Name	CAS Number	As Received Result	As Received MRL*	As Received EDL	Dilution Factor

Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

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Lancaster Laboratories Environmental
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Analysis Report

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SSFL Phase 3 Subarea NBZ

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CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

NBEB2 SDG#: PH146-04EB*

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12971	7b SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13348WAG026	12/19/2013 21:12	Chad A Moline	1
10466	BNA Water Extraction SIM	SW-846 3510C	1	13348WAG026	12/16/2013 05:40	Roman Kuropatkin	1
08229	11b TPH by EPA 8015B GRO	TPH GRO SW-8015B	1	13346A20A	12/13/2013 20:20	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	13346A20A	12/13/2013 20:20	Marie D Beamenderfer	1
10407	24b Herbicides by EPA 8151A	SW-846 8151A	1	133510013A	12/20/2013 18:43	Melissa McDermott	1
10589	22b Pesticides by EPA 8081B	SW-846 8081B	1	133510021A	12/19/2013 18:16	Jamie L Brillhart	1
13092	21b PCBs and PCTs 8082A	SW-846 8082A	1	133510023A	12/19/2013 11:38	Monica M Souders	1
13093	PCB/PCT Waters Update IV	SW-846 3510C	1	133510023A	12/18/2013 12:00	William H Saadeh	1
11120	Pesticide Waters Update IV Ext	SW-846 3510C	1	133510021A	12/18/2013 12:00	William H Saadeh	1
00816	Water Sample Herbicide Extract	SW-846 8151A	1	133510013A	12/18/2013 15:30	Seth A Farrier	1
10365	10b TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	133520004A	12/19/2013 14:42	Tracy A Cole	1
11203	EFH Waters Extraction	SW-846 3510C	1	133520004A	12/18/2013 18:15	JoElla L Rice	1
10915	17b Dioxin/Furan by EPA 1613B	EPA 1613B	1	13353002	12/21/2013 19:05	Nelson H Risser	1
10914	Dioxins/Furans in Water - SepF	EPA 1613B	1	13353002	12/19/2013 11:15	Brett M Weidman	1
01743	Aluminum	SW-846 6010C	1	133530635003	12/23/2013 13:19	Eric L Eby	1
07044	Antimony	SW-846 6010C	1	133530635003	12/23/2013 13:19	Eric L Eby	1
07035	Arsenic	SW-846 6010C	1	133530635003	12/23/2013 13:19	Eric L Eby	1
07046	Barium	SW-846 6010C	1	133530635003	12/23/2013 13:19	Eric L Eby	1
07047	Beryllium	SW-846 6010C	1	133530635003	12/23/2013 13:19	Eric L Eby	1
08014	Boron	SW-846 6010C	1	133530635003	12/23/2013 13:19	Eric L Eby	1
07049	Cadmium	SW-846 6010C	1	133530635003	12/23/2013 13:19	Eric L Eby	1
01750	Calcium	SW-846 6010C	1	133530635003	12/23/2013 13:19	Eric L Eby	1
07051	Chromium	SW-846 6010C	1	133530635003	12/23/2013 13:19	Eric L Eby	1
07052	Cobalt	SW-846 6010C	1	133530635003	12/23/2013 13:19	Eric L Eby	1
07053	Copper	SW-846 6010C	1	133530635003	12/23/2013 13:19	Eric L Eby	1
01754	Iron	SW-846 6010C	1	133530635003	12/23/2013 13:19	Eric L Eby	1
07055	Lead	SW-846 6010C	1	133530635003	12/23/2013 13:19	Eric L Eby	1
01756	Lithium	SW-846 6010C	1	133530635003	12/23/2013 13:19	Eric L Eby	1
01757	Magnesium	SW-846 6010C	1	133530635003	12/23/2013 13:19	Eric L Eby	1
07058	Manganese	SW-846 6010C	1	133530635003	12/23/2013 13:19	Eric L Eby	1
07060	Molybdenum	SW-846 6010C	1	133530635003	12/23/2013 13:19	Eric L Eby	1
07061	Nickel	SW-846 6010C	1	133530635003	12/23/2013 13:19	Eric L Eby	1

*=This limit was used in the evaluation of the final result

eurofins
Lancaster Laboratories Environmental
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Analysis Report

Sample Description: EB2-121113 Water
SSFL Phase 3 Subarea NBZ

LL Sample # WW 7310859
LL Group # 1440439
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/11/2013 14:30 by PH

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CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

NBEB2 SDG#: PH146-04EB*

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10143	Phosphorus	SW-846 6010C	1	133530635003	12/23/2013 13:19	Eric L Eby	1
01762	Potassium	SW-846 6010C	1	133530635003	12/23/2013 13:19	Eric L Eby	1
01767	Sodium	SW-846 6010C	1	133530635003	12/23/2013 13:19	Eric L Eby	1
07069	Tin	SW-846 6010C	1	133530635003	12/23/2013 13:19	Eric L Eby	1
07070	Titanium	SW-846 6010C	1	133530635003	12/23/2013 13:19	Eric L Eby	1
07071	Vanadium	SW-846 6010C	1	133530635003	12/23/2013 13:19	Eric L Eby	1
07072	Zinc	SW-846 6010C	1	133530635003	12/23/2013 13:19	Eric L Eby	1
10144	Zirconium	SW-846 6010C	1	133530635003	12/23/2013 13:19	Eric L Eby	1
06041	Selenium	SW-846 6020A	1	133530639001B	12/23/2013 21:54	John P Hook	1
06042	Silver	SW-846 6020A	1	133530639001A	12/23/2013 21:54	John P Hook	1
06044	Strontium	SW-846 6020A	1	133530639001A	12/23/2013 21:54	John P Hook	1
06045	Thallium	SW-846 6020A	1	133530639001A	12/23/2013 21:54	John P Hook	1
00259	3b Mercury 7470A	SW-846 7470A	1	133465713005	12/14/2013 08:09	Damary Valentin	1
10635	WW SW846(IV) ICP Dig (tot rec)	SW-846 3005A	1	133530635003	12/21/2013 06:55	James L Mertz	1
10639	ICP/MS SW846 (IV) Water Digest	SW-846 3010A modified	1	133530639001	12/21/2013 07:00	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	133465713005	12/13/2013 15:20	Damary Valentin	1
00368	1b Anions by 300.0-Nitrate	EPA 300.0	3	13347347601B	12/13/2013 11:47	Clinton M Wilson	1
12152	28b pH (9040B and 9040C)	SW-846 9040C	1	13350002101A	12/16/2013 12:51	Michele L Graham	1

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1440439
Reported: 01/03/14 at 09:15 AM

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 13348WAG026	Sample number(s): 7310858-7310859									
Acenaphthene	0.050	U	0.050	0.010	ug/l	105	104	77-118	1	30
Acenaphthylene	0.050	U	0.050	0.010	ug/l	105	113	80-123	7	30
Anthracene	0.050	U	0.050	0.010	ug/l	99	108	78-123	8	30
Benzo(a)anthracene	0.050	U	0.050	0.010	ug/l	103	108	73-127	5	30
Benzo(a)pyrene	0.050	U	0.050	0.010	ug/l	99	107	72-120	8	30
Benzo(b)fluoranthene	0.050	U	0.050	0.010	ug/l	108	119	79-136	9	30
Benzo(e)pyrene	0.050	U	0.050	0.010	ug/l	91	99	70-130	8	30
Benzo(g,h,i)perylene	0.050	U	0.050	0.010	ug/l	104	111	64-130	7	30
Benzo(k)fluoranthene	0.050	U	0.050	0.010	ug/l	101	107	73-131	6	30
Butylbenzylphthalate	1.0	U	1.0	0.050	ug/l	67	64	40-138	4	30
Di-n-butylphthalate	1.0	U	1.0	0.050	ug/l	91	101	64-141	11	30
Chrysene	0.050	U	0.050	0.010	ug/l	100	109	76-125	8	30
Dibenz(a,h)anthracene	0.050	U	0.050	0.010	ug/l	105	113	58-131	7	30
Diethylphthalate	1.0	U	1.0	0.050	ug/l	90	94	64-128	4	30
Dimethylphthalate	1.0	U	1.0	0.050	ug/l	57	58	23-139	1	30
Bis(2-Ethylhexyl)phthalate	0.077	J	1.0	0.050	ug/l	112	111	70-143	1	30
Fluoranthene	0.050	U	0.050	0.010	ug/l	99	108	79-124	8	30
Fluorene	0.050	U	0.050	0.010	ug/l	102	110	74-115	7	30
Indeno(1,2,3-cd)pyrene	0.050	U	0.050	0.010	ug/l	104	110	62-130	6	30
1-Methylnaphthalene	0.050	U	0.050	0.010	ug/l	105	113	80-126	8	30
2-Methylnaphthalene	0.050	U	0.050	0.010	ug/l	102	110	81-124	8	30
Naphthalene	0.050	U	0.050	0.030	ug/l	101	108	75-120	7	30
N-Nitrosodimethylamine	0.050	U	0.050	0.010	ug/l	86	88	36-120	2	30
Di-n-octylphthalate	1.0	U	1.0	0.050	ug/l	94	107	57-145	14	30
Phenanthrene	0.050	U	0.050	0.030	ug/l	98	105	75-120	7	30
Pyrene	0.050	U	0.050	0.010	ug/l	110	115	71-130	5	30
Batch number: 13352SLF026	Sample number(s): 7310856-7310857									
Acenaphthene	1.7	U	1.7	0.67	ug/kg	94		77-116		
Acenaphthylene	1.7	U	1.7	0.33	ug/kg	96		78-120		
Anthracene	1.7	U	1.7	0.33	ug/kg	97		80-116		
Benzo(a)anthracene	1.7	U	1.7	0.67	ug/kg	107		83-119		
Benzo(a)pyrene	1.7	U	1.7	0.67	ug/kg	104		80-122		
Benzo(b)fluoranthene	1.7	U	1.7	0.67	ug/kg	114		82-135		
Benzo(e)pyrene	17	U	17.	3.3	ug/kg	97		81-110		
Benzo(g,h,i)perylene	1.7	U	1.7	0.67	ug/kg	103		79-121		
Benzo(k)fluoranthene	1.7	U	1.7	0.67	ug/kg	105		79-123		
Butylbenzylphthalate	18	U	18.	6.0	ug/kg	104		77-123		
Di-n-butylphthalate	18	U	18.	6.0	ug/kg	95		78-125		
Chrysene	1.7	U	1.7	0.33	ug/kg	107		84-113		
Dibenz(a,h)anthracene	1.7	U	1.7	0.67	ug/kg	98		78-124		
Diethylphthalate	18	U	18.	6.0	ug/kg	99		77-130		
Dimethylphthalate	18	U	18.	6.0	ug/kg	101		85-122		

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1440439
Reported: 01/03/14 at 09:15 AM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Bis(2-Ethylhexyl)phthalate	18	U	18.	6.0	ug/kg	100		79-121		
Fluoranthene	1.7	U	1.7	0.67	ug/kg	100		85-116		
Fluorene	1.7	U	1.7	0.67	ug/kg	101		81-126		
Indeno(1,2,3-cd)pyrene	1.7	U	1.7	0.67	ug/kg	102		77-124		
1-Methylnaphthalene	1.7	U	1.7	0.67	ug/kg	108		78-119		
2-Methylnaphthalene	1.7	U	1.7	0.67	ug/kg	108		78-121		
Naphthalene	1.7	U	1.7	0.67	ug/kg	99		79-113		
N-Nitrosodimethylamine	1.7	U	1.7	0.67	ug/kg	95		71-124		
Di-n-octylphthalate	18	U	18.	6.0	ug/kg	108		76-131		
Phenanthrene	1.7	U	1.7	0.67	ug/kg	96		72-110		
Pyrene	1.7	U	1.7	0.67	ug/kg	108		79-112		
Batch number: 13346A20A	Sample number(s): 7310858-7310859									
TPH-GRO S.CA water C5-C12	50	U	50.	20	ug/l	97	100	75-135	3	30
Batch number: 133510013A	Sample number(s): 7310859									
2,4-D	0.50	U	0.50	0.16	ug/l	144	145	68-155	0	30
Dalapon	1.3	U	1.3	0.25	ug/l	60	55	25-119	9	30
2,4-DB	1.0	U	1.0	0.30	ug/l	131	132	50-163	0	30
Dicamba	0.30	U	0.30	0.080	ug/l	100	105	64-163	5	30
Dinoseb	0.50	U	0.50	0.12	ug/l	216*	223*	16-163	3	30
2,4-DP (Dichlorprop)	0.50	U	0.50	0.16	ug/l	142	138	89-162	3	30
MCPA	200 U		200.	50	ug/l	96	94	68-154	1	30
MCPP	200 U		200.	50	ug/l	96	99	46-173	3	30
2,4,5-T	0.050	U	0.050	0.015	ug/l	118	118	71-174	0	30
2,4,5-TP	0.050	U	0.050	0.010	ug/l	131	133	58-155	1	30
Batch number: 133510021A	Sample number(s): 7310858-7310859									
Aldrin	0.0080	U	0.0080	0.0016	ug/l	90	92	45-125	2	30
Alpha BHC	0.0080	U	0.0080	0.0024	ug/l	117	116	51-139	1	30
Beta BHC	0.0080	U	0.0080	0.0027	ug/l	106	104	57-127	2	30
Gamma BHC - Lindane	0.0080	U	0.0080	0.0016	ug/l	122	124	57-133	2	30
Chlordane	0.40	U	0.40	0.13	ug/l					
p,p-DDD	0.016	U	0.016	0.0040	ug/l	112	110	55-145	2	30
p,p-DDE	0.016	U	0.016	0.0040	ug/l	116	112	58-130	3	30
p,p-DDT	0.016	U	0.016	0.0042	ug/l	116	113	45-140	2	30
Delta BHC	0.0080	U	0.0080	0.0027	ug/l	116	111	52-133	4	30
Dieldrin	0.016	U	0.016	0.0042	ug/l	109	106	60-135	3	30
Endosulfan I	0.0080	U	0.0080	0.0034	ug/l	88	86	56-128	3	30
Endosulfan II	0.016	U	0.016	0.012	ug/l	90	88	53-123	3	30
Endosulfan Sulfate	0.016	U	0.016	0.0046	ug/l	109	107	51-130	2	30
Endrin	0.016	U	0.016	0.0065	ug/l	46	96	43-139	71*	30
Endrin Aldehyde	0.080	U	0.080	0.016	ug/l	117	98	50-122	18	20
Endrin Ketone	0.016	U	0.016	0.0040	ug/l	140*	107	51-133	27	30
Heptachlor	0.0080	U	0.0080	0.0016	ug/l	97	97	48-130	0	30
Heptachlor Epoxide	0.0080	U	0.0080	0.0018	ug/l	108	106	65-128	2	30
Methoxychlor	0.080	U	0.080	0.024	ug/l	105	104	40-150	1	30
Mirex	0.040	U	0.040	0.0080	ug/l					
Toxaphene	0.80	U	0.80	0.24	ug/l					
Batch number: 133510023A	Sample number(s): 7310859									
Aroclor 5432	0.40	U	0.40	0.080	ug/l					
Aroclor 5442	0.40	U	0.40	0.080	ug/l	58	64	35-84	10	30
Aroclor 5460	0.40	U	0.40	0.088	ug/l					

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1440439
Reported: 01/03/14 at 09:15 AM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
PCB-1016	0.40	U	0.40	0.080	ug/l	89	101	67-117	13	30
PCB-1221	0.40	U	0.40	0.080	ug/l					
PCB-1232	0.40	U	0.40	0.16	ug/l					
PCB-1242	0.40	U	0.40	0.080	ug/l					
PCB-1248	0.40	U	0.40	0.080	ug/l					
PCB-1254	0.40	U	0.40	0.080	ug/l					
PCB-1260	0.40	U	0.40	0.12	ug/l	82	103	67-128	23	30
PCB-1262	0.40	U	0.40	0.16	ug/l					
PCB-1268	0.40	U	0.40	0.13	ug/l					
Batch number: 133520004A	Sample number(s): 7310858-7310859									
EFH (C12-C14)	0.10	U	0.10	0.050	mg/l	81	78	67-109	4	30
EFH (C15-C20)	0.10	U	0.10	0.050	mg/l	89	86	71-119	3	30
EFH (C21-C30)	0.10	U	0.10	0.050	mg/l	89	86	75-117	3	30
EFH (C30 - C40)	0.50	U	0.50	0.10	mg/l	78	73	44-134	7	30
EFH (C8-C11)	0.10	U	0.10	0.050	mg/l	64	61	55-86	5	30
Batch number: 133465713005	Sample number(s): 7310858-7310859									
3b Mercury 7470A	0.00020	U	0.00020	0.00006 0	mg/l	97	95	90-115	3	20
Batch number: 133530635003	Sample number(s): 7310858-7310859									
Aluminum	0.400	U	0.400	0.0828	mg/l	100	100	90-112	0	20
Antimony	0.0400	U	0.0400	0.0053	mg/l	105	105	88-111	1	20
Arsenic	0.0400	U	0.0400	0.0068	mg/l	102	102	90-113	0	20
Barium	0.0100	U	0.0100	0.00033	mg/l	103	102	90-110	1	20
Beryllium	0.0100	U	0.0100	0.00067	mg/l	100	99	90-111	0	20
Boron	0.100	U	0.100	0.0084	mg/l	97	97	90-110	0	20
Cadmium	0.0100	U	0.0100	0.00076	mg/l	104	103	90-112	1	20
Calcium	0.400	U	0.400	0.0334	mg/l	100	99	90-112	1	20
Chromium	0.0300	U	0.0300	0.0016	mg/l	102	101	90-110	1	20
Cobalt	0.0100	U	0.0100	0.0013	mg/l	104	103	90-110	1	20
Copper	0.0200	U	0.0200	0.0027	mg/l	104	103	90-112	1	20
Iron	0.400	U	0.400	0.0430	mg/l	104	99	90-112	4	20
Lead	0.0300	U	0.0300	0.0047	mg/l	106	105	88-110	1	20
Lithium	0.0400	U	0.0400	0.0047	mg/l	102	101	90-110	1	20
Magnesium	0.200	U	0.200	0.0167	mg/l	99	98	89-110	1	20
Manganese	0.0100	U	0.0100	0.00083	mg/l	104	102	90-110	1	20
Molybdenum	0.0200	U	0.0200	0.0017	mg/l	105	104	90-110	0	20
Nickel	0.0200	U	0.0200	0.0015	mg/l	106	105	90-111	1	20
Phosphorus	0.200	U	0.200	0.0418	mg/l	101	100	90-110	1	20
Potassium	1.00	U	1.00	0.0980	mg/l	96	96	90-110	0	20
Sodium	2.00	U	2.00	0.167	mg/l	98	98	87-114	1	20
Tin	0.0400	U	0.0400	0.0029	mg/l	102	102	90-110	0	20
Titanium	0.0200	U	0.0200	0.0017	mg/l	102	102	90-113	0	20
Vanadium	0.0100	U	0.0100	0.0020	mg/l	104	103	90-110	1	20
Zinc	0.0400	U	0.0400	0.0020	mg/l	100	100	90-110	0	20
Zirconium	0.100	U	0.100	0.0084	mg/l	101	101	90-110	0	20
Batch number: 133530639001A	Sample number(s): 7310858-7310859									
Silver	0.0010	U	0.0010	0.00011	mg/l	103	104	90-115	1	20
Strontium	0.0020	U	0.0020	0.00034	mg/l	103	106	90-110	3	20
Thallium	0.0010	U	0.0010	0.00015	mg/l	99	95	90-115	4	20
Batch number: 133530639001B	Sample number(s): 7310858-7310859									
Selenium	0.0040	U	0.0040	0.00050	mg/l	104	106	90-120	2	20

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1440439
Reported: 01/03/14 at 09:15 AM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 13347347601B	Sample number(s): 7310859									
1b Anions by 300.0-Nitrate	0.10	U	0.10	0.050	mg/l	93	92	90-110	1	20
Batch number: 13350002101A	Sample number(s): 7310858-7310859									
28b pH (9040B and 9040C)						100		90-110		
Batch number: 13352162401A	Sample number(s): 7310856-7310857									
14a Moisture Content by 160.3						100		80-120		

Analysis Name	Blank Result		Blank MRL**	Blank EDL	Report Units	OPR %REC	OPRD %REC	OPR/OPRD Limits	RPD	RPD Max
Batch number: 13353002	Sample number(s): 7310858-7310859									
2378-TCDD	2.00	U	2.00	0.586	pg/l	99		60-150		
12378-PeCDD	10.0	U	10.0	0.498	pg/l	98		60-150		
123478-HxCDD	10.0	U	10.0	0.242	pg/l	100		60-150		
123678-HxCDD	10.0	U	10.0	0.270	pg/l	101		60-150		
123789-HxCDD	10.0	U	10.0	0.247	pg/l	98		60-150		
1234678-HpCDD	0.375	J	10.0	0.300	pg/l	101		60-150		
OCDD	1.46	J	20.0	0.362	pg/l	100		60-150		
2378-TCDF	2.00	U	2.00	0.382	pg/l	98		60-150		
12378-PeCDF	0.905	J	10.0	0.263	pg/l	101		60-150		
23478-PeCDF	10.0	U	10.0	0.254	pg/l	101		60-150		
123478-HxCDF	0.270	J	10.0	0.181	pg/l	96		60-150		
123678-HxCDF	0.304	J	10.0	0.184	pg/l	100		60-150		
123789-HxCDF	10.0	U	10.0	0.204	pg/l	99		60-150		
234678-HxCDF	0.347	J	10.0	0.180	pg/l	99		60-150		
1234678-HpCDF	0.579	J	10.0	0.117	pg/l	100		60-150		
1234789-HpCDF	0.410	J	10.0	0.154	pg/l	103		60-150		
OCDF	1.19	J	20.0	0.417	pg/l	97		60-150		
TEQ WHO 2005 - EDLx0.0	0.0141				pg/l					

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 13352SLF026	Sample number(s): 7310856-7310857 UNSPK: P312454								
Acenaphthene	75	75	48-127	0	30				
Acenaphthylene	74	74	49-121	1	30				
Anthracene	76	79	52-126	4	30				
Benzo(a)anthracene	82	86	44-143	4	30				
Benzo(a)pyrene	83	86	44-140	4	30				
Benzo(b)fluoranthene	102	106	26-142	3	30				
Benzo(e)pyrene	80	86	70-130	7	30				

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1440439
Reported: 01/03/14 at 09:15 AM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Benzo(g,h,i)perylene	39	40	33-141	3	30				
Benzo(k)fluoranthene	94	104	54-142	10	30				
Butylbenzylphthalate	100	111	49-151	11	30				
Di-n-butylphthalate	76	82	52-147	8	30				
Chrysene	84	86	29-148	3	30				
Dibenz(a,h)anthracene	49	50	20-137	2	30				
Diethylphthalate	71	69	43-145	2	30				
Dimethylphthalate	91	90	58-129	1	30				
Bis(2-Ethylhexyl)phthalate	95	87	39-167	6	30				
Fluoranthene	76	80	40-148	4	30				
Fluorene	75	68	51-137	10	30				
Indeno(1,2,3-cd)pyrene	50	51	17-136	1	30				
1-Methylnaphthalene	89	88	50-131	1	30				
2-Methylnaphthalene	90	87	35-152	3	30				
Naphthalene	82	77	31-148	5	30				
N-Nitrosodimethylamine	87	84	48-113	3	30				
Di-n-octylphthalate	147	167*	52-162	12	30				
Phenanthrene	78	80	29-142	2	30				
Pyrene	90	97	26-143	8	30				
Batch number: 13350002101A Sample number(s): 7310858-7310859 BKG: P314027									
28b pH (9040B and 9040C)						7.2	7.3	0	3
Batch number: 13352162401A Sample number(s): 7310856-7310857 BKG: P312450									
14a Moisture Content by 160.3						4.3	4.3	2	20

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 7b SVOC SIM EPA 8270D
Batch number: 13348WAG026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
7310858	97	93	99
7310859	86	85	84
Blank	108	107	110
LCS	97	97	101
LCSD	105	106	111
Limits:	44-137	62-141	51-136

Analysis Name: 7a SVOC SIM EPA 8270D
Batch number: 13352SLF026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1440439
Reported: 01/03/14 at 09:15 AM

Surrogate Quality Control

7310856	84	81	106
7310857	80	80	102
Blank	89	92	110
LCS	83	84	102
MS	67	71	91
MSD	70	73	86
Limits:	54-129	59-125	61-125

Analysis Name: 11b TPH by EPA 8015B GRO
Batch number: 13346A20A

	Trifluorotoluene-F
7310858	77
7310859	78
Blank	81
LCS	86
LCSD	88
Limits:	63-135

Analysis Name: 24b Herbicides by EPA 8151A
Batch number: 133510013A

	2,4-Dichlorophenylacetic acid
7310859	77
Blank	79
LCS	94
LCSD	96
Limits:	50-150

Analysis Name: 22b Pesticides by EPA 8081B
Batch number: 133510021A

	Tetrachloro-m-xylene	Decachlorobiphenyl
7310858	97	49
7310859	113	60
Blank	71	35
LCS	98	45
LCSD	100	51
Limits:	60-140	20-120

Analysis Name: 21b PCBs and PCTs 8082A
Batch number: 133510023A

	Tetrachloro-m-xylene	Decachlorobiphenyl
7310859	115	55
Blank	82	38*
LCS	98	30*
LCSD	114	34*
Limits:	45-120	45-120

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1440439
Reported: 01/03/14 at 09:15 AM

Surrogate Quality Control

Analysis Name: 10b TPH by EPA 8015B (DRO)
Batch number: 133520004A

	Chlorobenzene	Orthoterphenyl
7310858	93	84
7310859	81	82
Blank	81	79
LCS	85	87
LCSD	82	83
Limits:	45-126	69-119

Analysis Name: 17b Dioxin/Furan by EPA 1613B
Batch number: 13353002

	13C12-2378-TCDD	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF	13C12-234678-HxCDF	13C12-123789-HxCDF
7310858	64	64	82	81	80	75
7310859	60	63	77	77	75	78
Blank	63	61	78	80	76	75
OPR	65	64	85	83	81	79
Limits:	25-164	21-178	26-152	26-123	28-136	29-147

	13C12-1234678-HpCDF	13C12-1234789-HpCDF	13C12-OCDF	13C12-12378-PeCDD	13C12-123478-HxCDD	13C12-123678-HxCDD
7310858	86	77	83	63	80	81
7310859	85	78	79	64	78	78
Blank	80	70	71	61	76	76
OPR	84	73	77	62	81	82
Limits:	28-143	26-138	17-157	25-181	32-141	28-130

	13C12-123789-HxCDD	13C12-1234678-HpCDD	13C12-OCDD	13C12-2378-TCDF	13C12-12378-PeCDF
7310858	76	81	82	61	68
7310859	77	83	79	57	66
Blank	75	74	71	62	66
OPR	80	78	76	64	67
Limits:	28-130	23-140	17-157	24-169	24-185

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

SSFL Phase 3 Chain of Custody

13013 1440439 7310856-59

CDM Smith

DateShipped: 12/11/2013
CarrierName: FedEx
AirbillNo: 797376645051

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20131211-08
Cooler #: 3
Lab: Lancaster
Lab Phone: 717-556-7259
Lab Address: 2425 New Holland Pike
Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Total Nitrogen ASTM D5373	TOC ASTM D5310	Grain Size ASTM 2488-09a	Other Analysis/Notes
SL-552-NBZ-SB-0.0-0.5	12/10/13 14:15	SO	None	1 - SS-Sleeve	10 day							X																												
SL-552-NBZ-SB-2.0-3.0	12/10/13 15:00	SO	None	1 - SS-Sleeve	10 day							X																												

Special Instructions:

Sampler:

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
[illegible]	12/11/2013	1600									
									[illegible]	12/12/13	945

COC Rev 3

COC: 20131211-08, Page 1 of 1

13013 1440439 7310856-59

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 12/11/2013
CarrierName: FedEx
AirbillNo: 797376645051

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20131211-02
Cooler #: 2
Lab: Lancaster
Lab Phone: 717-556-7259
Lab Address: 2425 New Holland Pike, Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm. 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Total Nitrogen ASTM D5373	TOC ASTM D5310	Grain Size ASTM 2488-09a	Other Analysis/Notes
EB1-121113	12/11/13 14:00	WQ	None	2 - 250 mL Amber	10 day							X										X																		
EB1-121113	12/11/13 14:00	WQ	HNO3 pH<2	1 - 250 mL Poly	10 day	X		X																																
EB1-121113	12/11/13 14:00	WQ	None	1 - 250 mL Poly	10 day														X																					
EB1-121113	12/11/13 14:00	WQ	HCl	3 - 40 mL Vial	10 day																			X																
EB2-121113	12/11/13 14:30	WQ	None	3 - 250 mL Amber	10 day							X			X							X																		
EB2-121113	12/11/13 14:30	WQ	HNO3 pH<2	1 - 250 mL Poly	10 day	X		X																																
EB2-121113	12/11/13 14:30	WQ	None	1 - 250 mL Poly	10 day														X																					
EB2-121113	12/11/13 14:30	WQ	HCl	3 - 40 mL Vial	10 day																			X																
EB2-121113	12/11/13 14:30	WQ	None	2 - 1 L Amber	10 day																X																			
EB2-121113	12/11/13 14:30	WQ	None	2 - 40 mL Vial	10 day																								X											

NBZ

Special Instructions:

Sampler: Pa Hart

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
Steve Myers	12/11/2013	1600									
									Duane Bailey	12/12/13	945

13013 1440439 7310856-59

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 12/11/2013
CarrierName: FedEx
AirbillNo: 797376645051

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20131211-01
Cooler #: 1
Lab: Lancaster
Lab Phone: 717-556-7259
Lab Address: 2425 New Holland Pike, Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Total Nitrogen ASTM D5373	TOC ASTM D5310	Grain Size ASTM 2488-09a	Other Analysis/Notes
EB1-121113	12/11/13 14:00	WQ	None	2 - 1 L Amber	10 day									X																										
EB1-121113	12/11/13 14:00	WQ	HCl	2 - 1 L Amber	10 day																					X														
EB2-121113	12/11/13 14:30	WQ	None	2 - 1 L Amber	10 day									X																										
EB2-121113	12/11/13 14:30	WQ	HCl	2 - 1 L Amber	10 day																					X														

NBZ

Special Instructions:

Sampler: Pa Hartman

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
Stephen Myers	12/11/2013	1600									

121213 945

COC Rev 3

COC: 20131211-01, Page 1 of 1

1 of 1

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Environmental Sample Administration Receipt Documentation Log

1440439

Client/Project: CDM

Date of Receipt: 121213

Time of Receipt: 945

Source Code: 50-1

Shipping Container Sealed: (YES) NO

Custody Seal Present * : (YES) NO

* Custody seal was intact unless otherwise noted in the discrepancy section

Package: (Chilled) Not Chilled

Temperature of Shipping Containers							
Cooler #	Thermometer ID	Temperature (°C)	Temp Bottle (TB) or Surface Temp (ST)	Wet Ice (WI) or Dry Ice (DI) or Ice Packs (IP)	Ice Present? Y/N	Loose (L) Bagged Ice (B) or NA	Comments
1	DH46	0.7	TB	WI	Y	B	
2	↓	0.6	↓	↓	↓	↓	
3	↓	1.1	↓	↓	↓	↓	
4							
5							
6							

Number of Trip Blanks received NOT listed on chain of custody: 0

Paperwork Discrepancy/Unpacking Problems:

Unpacker Signature/Emp#: Brianna Beach 2299 **Date/Time:** 121213 1158

Issued by Dept. 6042 Management

2174.06

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Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	**BMQL**	Below Minimum Quantitation Level
N.D.	none detected	**MPN**	Most Probable Number
TNTC	Too Numerous To Count	**CP Units**	cobalt-chloroplatinate units
IU	International Units	**NTU**	nephelometric turbidity units
umhos/cm	micromhos/cm	**ng**	nanogram(s)
C	degrees Celsius	**F**	degrees Fahrenheit
meq	milliequivalents	**lb.**	pound(s)
g	gram(s)	**kg**	kilogram(s)
µg	microgram(s)	**mg**	milligram(s)
mL	milliliter(s)	**L**	liter(s)
m3	cubic meter(s)	**µL**	microliter(s)
		pg/L	picogram/liter

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Data Qualifiers:

C – result confirmed by reanalysis.

J - estimated value – The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	**B**	Value is <CRDL, but ≥IDL
B	Analyte was also detected in the blank	**E**	Estimated due to interference
C	Pesticide result confirmed by GC/MS	**M**	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	**N**	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	**S**	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	**U**	Compound was not detected
P	Concentration difference between primary and confirmation columns >25%	**W**	Post digestion spike out of control limits
U	Compound was not detected	*****	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	**+**	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as “analyze immediately” are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

January 08, 2014

Project: SSFL Phase 3 Sampling

Submittal Date: 12/13/2013
Group Number: 1440744
SDG: PH148
PO Number: 1204-002-001-AL
State of Sample Origin: CA

Client Sample Description	Lancaster Labs (LL) #
SL-540-NBZ-SB-0.0-0.5 Soil	7312454
SL-540-NBZ-SB-0.0-0.5MS Soil	7312455
SL-540-NBZ-SB-0.0-0.5MSD Soil	7312456
SL-840-NBZ-SB-0.0-0.5 Soil	7312457
SL-541-NBZ-SB-0.0-0.5 Soil	7312458
SL-542-NBZ-SB-0.0-0.5 Soil	7312459
SL-539-NBZ-SB-0.0-0.5 Soil	7312460
SL-543-NBZ-SB-0.0-0.5 Soil	7312461
SL-544-NBZ-SB-0.0-0.5 Soil	7312462
SL-544-NBZ-SB-0.0-0.5MS Soil	7312463
SL-544-NBZ-SB-0.0-0.5MSD Soil	7312464
SL-544-NBZ-SB-0.0-0.5DUP Soil	7312465
SL-844-NBZ-SB-0.0-0.5 Soil	7312466

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO Eurofins Lancaster Labs Env Attn: Nicole Maljovec

Respectfully Submitted,

Nicole L. Maljovec
Principal Specialist Group Leader

(717) 556-7259

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Analysis Report

Sample Description: SL-540-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7312454
LL Group # 1440744
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/11/2013 14:20

Submitted: 12/13/2013 10:30
Reported: 01/08/2014 09:12

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

54000 SDG#: PH148-01BKG

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	2.0	U	2.0	0.79	1
12969	Acenaphthylene	208-96-8	2.0	U	2.0	0.39	1
12969	Anthracene	120-12-7	0.53	J	2.0	0.39	1
12969	Benzo(a)anthracene	56-55-3	1.2	J	2.0	0.79	1
12969	Benzo(a)pyrene	50-32-8	1.5	J	2.0	0.79	1
12969	Benzo(b)fluoranthene	205-99-2	3.7		2.0	0.79	1
12969	Benzo(e)pyrene	192-97-2	20	U	20	3.9	1
12969	Benzo(g,h,i)perylene	191-24-2	1.1	J	2.0	0.79	1
12969	Benzo(k)fluoranthene	207-08-9	1.2	J	2.0	0.79	1
12969	Butylbenzylphthalate	85-68-7	21	U	21	7.1	1
12969	Di-n-butylphthalate	84-74-2	21	U	21	7.1	1
12969	Chrysene	218-01-9	3.5		2.0	0.39	1
12969	Dibenz(a,h)anthracene	53-70-3	2.0	U	2.0	0.79	1
12969	Diethylphthalate	84-66-2	21	U	21	7.1	1
12969	Dimethylphthalate	131-11-3	21	U	21	7.1	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	15	J	21	7.1	1
12969	Fluoranthene	206-44-0	2.9		2.0	0.79	1
12969	Fluorene	86-73-7	2.0	U	2.0	0.79	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	2.0	U	2.0	0.79	1
12969	1-Methylnaphthalene	90-12-0	2.4		2.0	0.79	1
12969	2-Methylnaphthalene	91-57-6	2.9		2.0	0.79	1
12969	Naphthalene	91-20-3	5.3		2.0	0.79	1
12969	N-Nitrosodimethylamine	62-75-9	2.0	U	2.0	0.79	1
12969	Di-n-octylphthalate	117-84-0	21	U	21	7.1	1
12969	Phenanthrene	85-01-8	2.9		2.0	0.79	1
12969	Pyrene	129-00-0	3.2		2.0	0.79	1
Herbicides	**SW-846 8151A**		**ug/kg**		**ug/kg**	**ug/kg**	
10401	2,4-D	94-75-7	42	U	42	14	1
10401	Dalapon	75-99-0	110	U	110	52	1
10401	2,4-DB	94-82-6	20	U	20	15	1
10401	Dicamba	1918-00-9	14	U	14	4.7	1
10401	Dinoseb	88-85-7	28	U	28	11	1
	The QC window for dinoseb is advisory due to the erratic performance of the analyte using this method.						
10401	2,4-DP (Dichlorprop)	120-36-5	20	U	20	11	1
10401	MCPA	94-74-6	2,900	U	2,900	900	1
10401	MCPP (Mecoprop)	93-65-2	2,900	U	2,900	880	1
10401	2,4,5-T	93-76-5	2.0	U	2.0	0.97	1
10401	2,4,5-TP	93-72-1	0.98	J	2.0	0.88	1
	Reporting limits were raised due to interference from the sample matrix.						
Pesticides/PCBs	**SW-846 8081B**		**ug/kg**		**ug/kg**	**ug/kg**	
10590	Aldrin	309-00-2	0.97	U	0.97	0.20	1
10590	Alpha BHC	319-84-6	0.97	U	0.97	0.20	1
10590	Beta BHC	319-85-7	2.2	U	2.2	1.1	1
10590	Gamma BHC - Lindane	58-89-9	0.97	U	0.97	0.40	1
10590	Chlordane	57-74-9	20	U	20	4.7	1
10590	p,p-DDD	72-54-8	2.0	U	2.0	0.39	1
10590	p,p-DDE	72-55-9	2.0	U	2.0	1.9	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-540-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7312454
LL Group # 1440744
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/11/2013 14:20

Submitted: 12/13/2013 10:30
Reported: 01/08/2014 09:12

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

54000 SDG#: PH148-01BKG

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs	**SW-846 8081B**		**ug/kg**		**ug/kg**	**ug/kg**	
10590	p,p-DDT	50-29-3	2.0		2.0	0.41	1
10590	Delta BHC	319-86-8	0.97	U	0.97	0.53	1
10590	Dieldrin	60-57-1	0.56	J	2.0	0.39	1
10590	Endosulfan I	959-98-8	0.97	U	0.97	0.26	1
10590	Endosulfan II	33213-65-9	2.0	U	2.0	0.39	1
10590	Endosulfan Sulfate	1031-07-8	2.0	U	2.0	0.39	1
10590	Endrin	72-20-8	0.46	J	2.0	0.39	1
10590	Endrin Aldehyde	7421-93-4	2.0	U	2.0	0.68	1
10590	Endrin Ketone	53494-70-5	2.1	U	2.1	0.70	1
10590	Heptachlor	76-44-8	0.54	J	0.97	0.20	1
10590	Heptachlor Epoxide	1024-57-3	0.97	U	0.97	0.20	1
10590	Methoxychlor	72-43-5	7.8	U	7.8	2.0	1
10590	Mirex	2385-85-5	2.0	U	2.0	0.41	1
10590	Toxaphene	8001-35-2	39	U	39	16	1
	Reporting limits were raised due to interference from the sample matrix.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	15.2		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-540-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7312454
LL Group # 1440744
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/11/2013 14:20

Submitted: 12/13/2013 10:30
Reported: 01/08/2014 09:12

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Fairfax VA 22030

54000 SDG#: PH148-01BKG

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0859	JBQ	1.18	0.0607	1
11031	12378-PeCDD	40321-76-4	0.222	JBQ	5.90	0.0525	1
11031	123478-HxCDD	39227-28-6	0.350	J	5.90	0.0895	1
11031	123678-HxCDD	57653-85-7	1.75	JB	5.90	0.0902	1
11031	123789-HxCDD	19408-74-3	0.583	JB	5.90	0.0900	1
11031	1234678-HpCDD	35822-46-9	36.2	B	5.90	0.0810	1
11031	OCDD	3268-87-9	288	B	11.8	0.0691	1
11031	2378-TCDF	51207-31-9	0.332	JB	1.18	0.0889	1
11031	12378-PeCDF	57117-41-6	0.785	JB	5.90	0.0481	1
11031	23478-PeCDF	57117-31-4	0.580	JB	5.90	0.0511	1
11031	123478-HxCDF	70648-26-9	0.337	JQ	5.90	0.0644	1
11031	123678-HxCDF	57117-44-9	0.490	J	5.90	0.0586	1
11031	123789-HxCDF	72918-21-9	0.139	JBQ	5.90	0.0751	1
11031	234678-HxCDF	60851-34-5	0.575	JB	5.90	0.0624	1
11031	1234678-HpCDF	67562-39-4	8.53	B	5.90	0.0479	1
11031	1234789-HpCDF	55673-89-7	0.654	JB	5.90	0.0782	1
11031	OCDF	39001-02-0	21.2	B	11.8	0.0592	1
D/F Toxic Equivalents	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	1.15				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	78	25 - 164
13C12-12378-PeCDD	76	25 - 181
13C12-123478-HxCDD	87	32 - 141
13C12-123678-HxCDD	87	28 - 130
13C12-123789-HxCDD	85	28 - 130
13C12-1234678-HpCDD	76	23 - 140
13C12-OCDD	75	17 - 157
13C12-2378-TCDF	70	24 - 169
13C12-12378-PeCDF	75	24 - 185
13C12-23478-PeCDF	69	21 - 178
13C12-123478-HxCDF	76	26 - 152
13C12-123678-HxCDF	82	26 - 123
13C12-234678-HxCDF	79	28 - 136
13C12-123789-HxCDF	70	29 - 147
13C12-1234678-HpCDF	89	28 - 143
13C12-1234789-HpCDF	62	26 - 138
13C12-OCDF	61	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column

*=This limit was used in the evaluation of the final result

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Environmental

Analysis Report

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Sample Description: SL-540-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7312454
LL Group # 1440744
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/11/2013 14:20

Submitted: 12/13/2013 10:30
Reported: 01/08/2014 09:12

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Suite 400
Fairfax VA 22030

54000 SDG#: PH148-01BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-540-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7312454
LL Group # 1440744
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/11/2013 14:20

Submitted: 12/13/2013 10:30
Reported: 01/08/2014 09:12

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

54000 SDG#: PH148-01BKG

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13352SLF026	12/29/2013 13:22	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	13352SLF026	12/19/2013 09:00	Anna E Stager	1
10401	21a Herbicides by EPA 8151A	SW-846 8151A	1	133500015A	12/19/2013 03:52	Melissa McDermott	1
10590	20a Pesticides by EPA 8081B	SW-846 8081B	1	133480013A	12/19/2013 15:28	Jamie L Brillhart	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	133480013A	12/16/2013 03:00	Sherry L Morrow	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	133500015A	12/16/2013 20:00	Elaine F Stoltzfus	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13352002	12/21/2013 06:35	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13352002	12/18/2013 12:40	Chin F Ly	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13352162401B	12/18/2013 21:53	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-540-NBZ-SB-0.0-0.5MS Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7312455
LL Group # 1440744
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/11/2013 14:20

Submitted: 12/13/2013 10:30
Reported: 01/08/2014 09:12

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

54000 SDG#: PH148-01MS

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	30		2.0	0.79	1
12969	Acenaphthylene	208-96-8	29		2.0	0.39	1
12969	Anthracene	120-12-7	30		2.0	0.39	1
12969	Benzo(a)anthracene	56-55-3	33		2.0	0.79	1
12969	Benzo(a)pyrene	50-32-8	34		2.0	0.79	1
12969	Benzo(b)fluoranthene	205-99-2	44		2.0	0.79	1
12969	Benzo(e)pyrene	192-97-2	32		20	3.9	1
12969	Benzo(g,h,i)perylene	191-24-2	16		2.0	0.79	1
12969	Benzo(k)fluoranthene	207-08-9	38		2.0	0.79	1
12969	Butylbenzylphthalate	85-68-7	39		21	7.1	1
12969	Di-n-butylphthalate	84-74-2	30		21	7.1	1
12969	Chrysene	218-01-9	36		2.0	0.39	1
12969	Dibenz(a,h)anthracene	53-70-3	19		2.0	0.79	1
12969	Diethylphthalate	84-66-2	28		21	7.1	1
12969	Dimethylphthalate	131-11-3	36		21	7.1	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	53		21	7.1	1
12969	Fluoranthene	206-44-0	33		2.0	0.79	1
12969	Fluorene	86-73-7	30		2.0	0.79	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	20		2.0	0.79	1
12969	1-Methylnaphthalene	90-12-0	38		2.0	0.79	1
12969	2-Methylnaphthalene	91-57-6	38		2.0	0.79	1
12969	Naphthalene	91-20-3	38		2.0	0.79	1
12969	N-Nitrosodimethylamine	62-75-9	34		2.0	0.79	1
12969	Di-n-octylphthalate	117-84-0	58		21	7.1	1
12969	Phenanthrene	85-01-8	34		2.0	0.79	1
12969	Pyrene	129-00-0	38		2.0	0.79	1
Herbicides	**SW-846 8151A**		**ug/kg**		**ug/kg**	**ug/kg**	
10401	2,4-D	94-75-7	140		42	14	1
10401	Dalapon	75-99-0	240		110	52	1
10401	2,4-DB	94-82-6	130		20	7.3	1
10401	Dicamba	1918-00-9	12	J	14	4.7	1
10401	Dinoseb	88-85-7	50		28	11	1
	The QC window for dinoseb is advisory due to the erratic performance of the analyte using this method.						
10401	2,4-DP (Dichlorprop)	120-36-5	160		20	11	1
10401	MCPA	94-74-6	12,000		2,900	900	1
10401	MCPP (Mecoprop)	93-65-2	10,000		2,900	880	1
10401	2,4,5-T	93-76-5	2.7		2.0	0.97	1
10401	2,4,5-TP	93-72-1	11		2.0	0.88	1
	The % difference for the calibration verification standard is outside the +/- 15% criteria for the analyte(s) listed below. Since the average of the % difference values meets the criteria, the results are reported. This applies to the following analyte(s): dinoseb						
Pesticides/PCBs	**SW-846 8081B**		**ug/kg**		**ug/kg**	**ug/kg**	
10590	Aldrin	309-00-2	3.4		0.97	0.20	1
10590	Alpha BHC	319-84-6	3.0		0.97	0.20	1
10590	Beta BHC	319-85-7	4.0		2.2	1.1	1
10590	Gamma BHC - Lindane	58-89-9	3.7		0.97	0.20	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-540-NBZ-SB-0.0-0.5MS Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7312455
LL Group # 1440744
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/11/2013 14:20

Submitted: 12/13/2013 10:30
Reported: 01/08/2014 09:12

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

54000 SDG#: PH148-01MS

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs	**SW-846 8081B**		**ug/kg**		**ug/kg**	**ug/kg**	
10590	Chlordane	57-74-9	20	U	20	4.7	1
10590	p,p-DDD	72-54-8	8.1		2.0	0.39	1
10590	p,p-DDE	72-55-9	10		2.0	0.39	1
10590	p,p-DDT	50-29-3	9.3		2.0	0.41	1
10590	Delta BHC	319-86-8	3.0		0.97	0.53	1
10590	Dieldrin	60-57-1	7.3		2.0	0.39	1
10590	Endosulfan I	959-98-8	2.7		0.97	0.26	1
10590	Endosulfan II	33213-65-9	5.7		2.0	0.39	1
10590	Endosulfan Sulfate	1031-07-8	7.1		2.0	0.39	1
10590	Endrin	72-20-8	7.4		2.0	0.39	1
10590	Endrin Aldehyde	7421-93-4	6.4		2.0	0.39	1
10590	Endrin Ketone	53494-70-5	6.9		2.1	0.70	1
10590	Heptachlor	76-44-8	3.8		0.97	0.20	1
10590	Heptachlor Epoxide	1024-57-3	3.4		0.97	0.20	1
10590	Methoxychlor	72-43-5	40		7.8	2.0	1
10590	Mirex	2385-85-5	2.0	U	2.0	0.41	1
10590	Toxaphene	8001-35-2	39	U	39	16	1
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11625	14a Moisture Content by 160.3	n.a.	15.2		0.10	0.10	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-540-NBZ-SB-0.0-0.5MS Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7312455
LL Group # 1440744
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/11/2013 14:20

Submitted: 12/13/2013 10:30
Reported: 01/08/2014 09:12

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

54000 SDG#: PH148-01MS

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	19.4	B	1.17	0.0733	1
11031	12378-PeCDD	40321-76-4	101	B	5.83	0.0673	1
11031	123478-HxCDD	39227-28-6	106		5.83	0.108	1
11031	123678-HxCDD	57653-85-7	110	B	5.83	0.107	1
11031	123789-HxCDD	19408-74-3	104	B	5.83	0.104	1
11031	1234678-HpCDD	35822-46-9	144	B	5.83	0.0874	1
11031	OCDD	3268-87-9	542	B	11.7	0.0836	1
11031	2378-TCDF	51207-31-9	20.1	B	1.17	0.114	1
11031	12378-PeCDF	57117-41-6	106	B	5.83	0.0745	1
11031	23478-PeCDF	57117-31-4	105	B	5.83	0.0756	1
11031	123478-HxCDF	70648-26-9	107		5.83	0.0991	1
11031	123678-HxCDF	57117-44-9	110		5.83	0.0940	1
11031	123789-HxCDF	72918-21-9	108	B	5.83	0.117	1
11031	234678-HxCDF	60851-34-5	106	B	5.83	0.0963	1
11031	1234678-HpCDF	67562-39-4	116	B	5.83	0.0718	1
11031	1234789-HpCDF	55673-89-7	108	B	5.83	0.104	1
11031	OCDF	39001-02-0	230	B	11.7	0.0915	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	66	25 - 164
13C12-12378-PeCDD	66	25 - 181
13C12-123478-HxCDD	79	32 - 141
13C12-123678-HxCDD	78	28 - 130
13C12-123789-HxCDD	78	28 - 130
13C12-1234678-HpCDD	71	23 - 140
13C12-OCDD	68	17 - 157
13C12-2378-TCDF	60	24 - 169
13C12-12378-PeCDF	64	24 - 185
13C12-23478-PeCDF	61	21 - 178
13C12-123478-HxCDF	70	26 - 152
13C12-123678-HxCDF	73	26 - 123
13C12-234678-HxCDF	73	28 - 136
13C12-123789-HxCDF	66	29 - 147
13C12-1234678-HpCDF	76	28 - 143
13C12-1234789-HpCDF	59	26 - 138
13C12-OCDF	58	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present
S Saturation of detection signal

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-540-NBZ-SB-0.0-0.5MS Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7312455
LL Group # 1440744
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/11/2013 14:20

Submitted: 12/13/2013 10:30
Reported: 01/08/2014 09:12

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

54000 SDG#: PH148-01MS

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13352SLF026	12/29/2013 13:56	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	13352SLF026	12/19/2013 09:00	Anna E Stager	1
10401	21a Herbicides by EPA 8151A	SW-846 8151A	1	133500015A	12/19/2013 05:12	Melissa McDermott	1
10590	20a Pesticides by EPA 8081B	SW-846 8081B	1	133480013A	12/19/2013 15:43	Jamie L Brillhart	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	133480013A	12/16/2013 03:00	Sherry L Morrow	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	133500015A	12/16/2013 20:00	Elaine F Stoltzfus	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13352002	12/21/2013 07:31	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13352002	12/18/2013 12:40	Chin F Ly	1
11625	14a Moisture Content by 160.3	EPA 160.3 modified	1	13352162401B	12/18/2013 21:53	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-540-NBZ-SB-0.0-0.5MSD Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7312456
LL Group # 1440744
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/11/2013 14:20

Submitted: 12/13/2013 10:30
Reported: 01/08/2014 09:12

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

54000 SDG#: PH148-01MSD

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	30		2.0	0.79	1
12969	Acenaphthylene	208-96-8	29		2.0	0.39	1
12969	Anthracene	120-12-7	32		2.0	0.39	1
12969	Benzo(a)anthracene	56-55-3	35		2.0	0.79	1
12969	Benzo(a)pyrene	50-32-8	35		2.0	0.79	1
12969	Benzo(b)fluoranthene	205-99-2	45		2.0	0.79	1
12969	Benzo(e)pyrene	192-97-2	34		20	3.9	1
12969	Benzo(g,h,i)perylene	191-24-2	17		2.0	0.79	1
12969	Benzo(k)fluoranthene	207-08-9	42		2.0	0.79	1
12969	Butylbenzylphthalate	85-68-7	44		21	7.1	1
12969	Di-n-butylphthalate	84-74-2	32		21	7.1	1
12969	Chrysene	218-01-9	38		2.0	0.39	1
12969	Dibenz(a,h)anthracene	53-70-3	20		2.0	0.79	1
12969	Diethylphthalate	84-66-2	27		21	7.1	1
12969	Dimethylphthalate	131-11-3	35		21	7.1	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	50		21	7.1	1
12969	Fluoranthene	206-44-0	34		2.0	0.79	1
12969	Fluorene	86-73-7	27		2.0	0.79	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	20		2.0	0.79	1
12969	1-Methylnaphthalene	90-12-0	37		2.0	0.79	1
12969	2-Methylnaphthalene	91-57-6	37		2.0	0.79	1
12969	Naphthalene	91-20-3	36		2.0	0.79	1
12969	N-Nitrosodimethylamine	62-75-9	33		2.0	0.79	1
12969	Di-n-octylphthalate	117-84-0	66		21	7.1	1
12969	Phenanthrene	85-01-8	34		2.0	0.79	1
12969	Pyrene	129-00-0	42		2.0	0.79	1
Herbicides	**SW-846 8151A**		**ug/kg**		**ug/kg**	**ug/kg**	
10401	2,4-D	94-75-7	150		42	14	1
10401	Dalapon	75-99-0	180		110	52	1
10401	2,4-DB	94-82-6	140		20	7.3	1
10401	Dicamba	1918-00-9	14	J	14	4.7	1
10401	Dinoseb	88-85-7	41		28	11	1
	The QC window for dinoseb is advisory due to the erratic performance of the analyte using this method.						
10401	2,4-DP (Dichlorprop)	120-36-5	170		20	11	1
10401	MCPA	94-74-6	13,000		2,900	900	1
10401	MCPP (Mecoprop)	93-65-2	11,000		2,900	880	1
10401	2,4,5-T	93-76-5	3.5		2.0	0.97	1
10401	2,4,5-TP	93-72-1	12		2.0	0.88	1
	The % difference for the calibration verification standard is outside the +/- 15% criteria for the analyte(s) listed below. Since the average of the % difference values meets the criteria, the results are reported. This applies to the following analyte(s): dinoseb						
Pesticides/PCBs	**SW-846 8081B**		**ug/kg**		**ug/kg**	**ug/kg**	
10590	Aldrin	309-00-2	3.7		0.97	0.20	1
10590	Alpha BHC	319-84-6	3.6		0.97	0.20	1
10590	Beta BHC	319-85-7	4.1		2.2	1.1	1
10590	Gamma BHC - Lindane	58-89-9	4.3		0.97	0.20	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-540-NBZ-SB-0.0-0.5MSD Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7312456
LL Group # 1440744
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/11/2013 14:20

Submitted: 12/13/2013 10:30
Reported: 01/08/2014 09:12

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

54000 SDG#: PH148-01MSD

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs	**SW-846 8081B**		**ug/kg**		**ug/kg**	**ug/kg**	
10590	Chlordane	57-74-9	20	U	20	4.7	1
10590	p,p-DDD	72-54-8	8.8		2.0	0.39	1
10590	p,p-DDE	72-55-9	11		2.0	0.39	1
10590	p,p-DDT	50-29-3	11		2.0	0.41	1
10590	Delta BHC	319-86-8	4.2		0.97	0.53	1
10590	Dieldrin	60-57-1	8.2		2.0	0.39	1
10590	Endosulfan I	959-98-8	3.2		0.97	0.26	1
10590	Endosulfan II	33213-65-9	6.6		2.0	0.39	1
10590	Endosulfan Sulfate	1031-07-8	8.3		2.0	0.39	1
10590	Endrin	72-20-8	8.2		2.0	0.39	1
10590	Endrin Aldehyde	7421-93-4	7.1		2.0	0.39	1
10590	Endrin Ketone	53494-70-5	7.4		2.1	0.70	1
10590	Heptachlor	76-44-8	4.5		0.97	0.20	1
10590	Heptachlor Epoxide	1024-57-3	4.1		0.97	0.20	1
10590	Methoxychlor	72-43-5	45		7.8	2.0	1
10590	Mirex	2385-85-5	2.0	U	2.0	0.41	1
10590	Toxaphene	8001-35-2	39	U	39	16	1
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11625	14a Moisture Content by 160.3	n.a.	15.2		0.10	0.10	1
11626	14a Moisture Content by 160.3	n.a.	13.9		0.10	0.10	1

The duplicate moisture value is provided to assess the precision of the moisture test. For comparability purposes, the initial moisture determination is the value used to perform dry weight calculations.

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-540-NBZ-SB-0.0-0.5MSD Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7312456
LL Group # 1440744
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/11/2013 14:20

Submitted: 12/13/2013 10:30
Reported: 01/08/2014 09:12

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

54000 SDG#: PH148-01MSD

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	19.3	B	1.17	0.0813	1
11031	12378-PeCDD	40321-76-4	104	B	5.86	0.0824	1
11031	123478-HxCDD	39227-28-6	110		5.86	0.126	1
11031	123678-HxCDD	57653-85-7	111	B	5.86	0.137	1
11031	123789-HxCDD	19408-74-3	107	B	5.86	0.125	1
11031	1234678-HpCDD	35822-46-9	138	B	5.86	0.110	1
11031	OCDD	3268-87-9	470	B	11.7	0.101	1
11031	2378-TCDF	51207-31-9	20.6	B	1.17	0.116	1
11031	12378-PeCDF	57117-41-6	107	B	5.86	0.0706	1
11031	23478-PeCDF	57117-31-4	107	B	5.86	0.0731	1
11031	123478-HxCDF	70648-26-9	109		5.86	0.135	1
11031	123678-HxCDF	57117-44-9	113		5.86	0.129	1
11031	123789-HxCDF	72918-21-9	111	B	5.86	0.144	1
11031	234678-HxCDF	60851-34-5	111	B	5.86	0.126	1
11031	1234678-HpCDF	67562-39-4	118	B	5.86	0.0698	1
11031	1234789-HpCDF	55673-89-7	110	B	5.86	0.0940	1
11031	OCDF	39001-02-0	230	B	11.7	0.0789	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	66	25 - 164
13C12-12378-PeCDD	65	25 - 181
13C12-123478-HxCDD	79	32 - 141
13C12-123678-HxCDD	77	28 - 130
13C12-123789-HxCDD	76	28 - 130
13C12-1234678-HpCDD	74	23 - 140
13C12-OCDD	68	17 - 157
13C12-2378-TCDF	60	24 - 169
13C12-12378-PeCDF	64	24 - 185
13C12-23478-PeCDF	60	21 - 178
13C12-123478-HxCDF	69	26 - 152
13C12-123678-HxCDF	70	26 - 123
13C12-234678-HxCDF	71	28 - 136
13C12-123789-HxCDF	69	29 - 147
13C12-1234678-HpCDF	74	28 - 143
13C12-1234789-HpCDF	62	26 - 138
13C12-OCDF	61	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present
S Saturation of detection signal

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-540-NBZ-SB-0.0-0.5MSD Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7312456
LL Group # 1440744
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/11/2013 14:20

Submitted: 12/13/2013 10:30
Reported: 01/08/2014 09:12

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

54000 SDG#: PH148-01MSD

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13352SLF026	12/29/2013 14:29	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	13352SLF026	12/19/2013 09:00	Anna E Stager	1
10401	21a Herbicides by EPA 8151A	SW-846 8151A	1	133500015A	12/19/2013 05:39	Melissa McDermott	1
10590	20a Pesticides by EPA 8081B	SW-846 8081B	1	133480013A	12/19/2013 15:58	Jamie L Brillhart	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	133480013A	12/16/2013 03:00	Sherry L Morrow	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	133500015A	12/16/2013 20:00	Elaine F Stoltzfus	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13352002	12/21/2013 08:28	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13352002	12/18/2013 12:40	Chin F Ly	1
11625	14a Moisture Content by 160.3	EPA 160.3 modified	1	13352162401B	12/18/2013 21:53	Scott W Freisher	1
11626	14a Moisture Content by 160.3	EPA 160.3 modified	1	13352162401B	12/18/2013 21:53	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-840-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7312457
LL Group # 1440744
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/11/2013 14:40

Submitted: 12/13/2013 10:30
Reported: 01/08/2014 09:12

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

84000 SDG#: PH148-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.9	U	1.9	0.78	1
12969	Acenaphthylene	208-96-8	1.9	U	1.9	0.39	1
12969	Anthracene	120-12-7	0.46	J	1.9	0.39	1
12969	Benzo(a)anthracene	56-55-3	1.2	J	1.9	0.78	1
12969	Benzo(a)pyrene	50-32-8	1.4	J	1.9	0.78	1
12969	Benzo(b)fluoranthene	205-99-2	3.3		1.9	0.78	1
12969	Benzo(e)pyrene	192-97-2	20	U	20	3.9	1
12969	Benzo(g,h,i)perylene	191-24-2	1.3	J	1.9	0.78	1
12969	Benzo(k)fluoranthene	207-08-9	1.2	J	1.9	0.78	1
12969	Butylbenzylphthalate	85-68-7	21	U	21	7.0	1
12969	Di-n-butylphthalate	84-74-2	21	U	21	7.0	1
12969	Chrysene	218-01-9	3.3		1.9	0.39	1
12969	Dibenz(a,h)anthracene	53-70-3	1.9	U	1.9	0.78	1
12969	Diethylphthalate	84-66-2	21	U	21	7.0	1
12969	Dimethylphthalate	131-11-3	21	U	21	7.0	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	13	J	21	7.0	1
12969	Fluoranthene	206-44-0	3.1		1.9	0.78	1
12969	Fluorene	86-73-7	5.5		1.9	0.78	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	0.85	J	1.9	0.78	1
12969	1-Methylnaphthalene	90-12-0	1.9	U	1.9	0.78	1
12969	2-Methylnaphthalene	91-57-6	1.5	J	1.9	0.78	1
12969	Naphthalene	91-20-3	3.8		1.9	0.78	1
12969	N-Nitrosodimethylamine	62-75-9	1.9	U	1.9	0.78	1
12969	Di-n-octylphthalate	117-84-0	21	U	21	7.0	1
12969	Phenanthrene	85-01-8	2.9		1.9	0.78	1
12969	Pyrene	129-00-0	2.8		1.9	0.78	1
Herbicides	**SW-846 8151A**		**ug/kg**		**ug/kg**	**ug/kg**	
10401	2,4-D	94-75-7	43	U	43	14	1
10401	Dalapon	75-99-0	110	U	110	52	1
10401	2,4-DB	94-82-6	20	U	20	12	1
10401	Dicamba	1918-00-9	14	U	14	4.7	1
10401	Dinoseb	88-85-7	28	U	28	11	1
	The QC window for dinoseb is advisory due to the erratic performance of the analyte using this method.						
10401	2,4-DP (Dichlorprop)	120-36-5	20	U	20	11	1
10401	MCPA	94-74-6	3,000	U	3,000	900	1
10401	MCPP (Mecoprop)	93-65-2	3,000	U	3,000	890	1
10401	2,4,5-T	93-76-5	2.2		2.0	0.97	1
10401	2,4,5-TP	93-72-1	2.0	U	2.0	0.89	1
	Reporting limits were raised due to interference from the sample matrix.						
Pesticides/PCBs	**SW-846 8081B**		**ug/kg**		**ug/kg**	**ug/kg**	
10590	Aldrin	309-00-2	0.97	U	0.97	0.20	1
10590	Alpha BHC	319-84-6	0.97	U	0.97	0.20	1
10590	Beta BHC	319-85-7	2.2	U	2.2	1.1	1
10590	Gamma BHC - Lindane	58-89-9	0.97	U	0.97	0.44	1
10590	Chlordane	57-74-9	20	U	20	4.7	1
10590	p,p-DDD	72-54-8	2.0	U	2.0	0.39	1
10590	p,p-DDE	72-55-9	2.0	U	2.0	1.5	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-840-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7312457
LL Group # 1440744
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/11/2013 14:40

Submitted: 12/13/2013 10:30
Reported: 01/08/2014 09:12

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

84000 SDG#: PH148-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs	**SW-846 8081B**		**ug/kg**		**ug/kg**	**ug/kg**	
10590	p,p-DDT	50-29-3	1.3	J	2.0	0.41	1
10590	Delta BHC	319-86-8	0.97	U	0.97	0.53	1
10590	Dieldrin	60-57-1	2.0	U	2.0	0.39	1
10590	Endosulfan I	959-98-8	0.97	U	0.97	0.26	1
10590	Endosulfan II	33213-65-9	2.0	U	2.0	0.39	1
10590	Endosulfan Sulfate	1031-07-8	2.0	U	2.0	0.39	1
10590	Endrin	72-20-8	2.0	U	2.0	0.39	1
10590	Endrin Aldehyde	7421-93-4	2.0	U	2.0	0.68	1
10590	Endrin Ketone	53494-70-5	2.1	U	2.1	0.70	1
10590	Heptachlor	76-44-8	0.29	J	0.97	0.20	1
10590	Heptachlor Epoxide	1024-57-3	0.97	U	0.97	0.20	1
10590	Methoxychlor	72-43-5	7.9	U	7.9	2.0	1
10590	Mirex	2385-85-5	2.0	U	2.0	0.41	1
10590	Toxaphene	8001-35-2	39	U	39	16	1
	Reporting limits were raised due to interference from the sample matrix.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	15.3		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-840-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7312457
LL Group # 1440744
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/11/2013 14:40

Submitted: 12/13/2013 10:30
Reported: 01/08/2014 09:12

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

84000 SDG#: PH148-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	1.16	U	1.16	0.123	1
11031	12378-PeCDD	40321-76-4	0.215	JQ	5.80	0.0834	1
11031	123478-HxCDD	39227-28-6	0.665	JQ	5.80	0.0681	1
11031	123678-HxCDD	57653-85-7	3.07	JB	5.80	0.0701	1
11031	123789-HxCDD	19408-74-3	1.18	J	5.80	0.0667	1
11031	1234678-HpCDD	35822-46-9	90.2	B	5.80	0.120	1
11031	OCDD	3268-87-9	856	B	11.6	0.0985	1
11031	2378-TCDF	51207-31-9	0.466	J	1.16	0.102	1
11031	12378-PeCDF	57117-41-6	1.21	JB	5.80	0.0506	1
11031	23478-PeCDF	57117-31-4	0.590	JB	5.80	0.0484	1
11031	123478-HxCDF	70648-26-9	0.501	JB	5.80	0.0529	1
11031	123678-HxCDF	57117-44-9	0.563	J	5.80	0.0509	1
11031	123789-HxCDF	72918-21-9	0.172	JBQ	5.80	0.0553	1
11031	234678-HxCDF	60851-34-5	0.787	JB	5.80	0.0498	1
11031	1234678-HpCDF	67562-39-4	14.5	B	5.80	0.0451	1
11031	1234789-HpCDF	55673-89-7	1.18	JBQ	5.80	0.0635	1
11031	OCDF	39001-02-0	35.2	B	11.6	0.0752	1
D/F Toxic Equivalents	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	2.18				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	59	25 - 164
13C12-12378-PeCDD	72	25 - 181
13C12-123478-HxCDD	77	32 - 141
13C12-123678-HxCDD	77	28 - 130
13C12-123789-HxCDD	76	28 - 130
13C12-1234678-HpCDD	79	23 - 140
13C12-OCDD	80	17 - 157
13C12-2378-TCDF	56	24 - 169
13C12-12378-PeCDF	71	24 - 185
13C12-23478-PeCDF	70	21 - 178
13C12-123478-HxCDF	72	26 - 152
13C12-123678-HxCDF	76	26 - 123
13C12-234678-HxCDF	75	28 - 136
13C12-123789-HxCDF	73	29 - 147
13C12-1234678-HpCDF	86	28 - 143
13C12-1234789-HpCDF	71	26 - 138
13C12-OCDF	70	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column

*=This limit was used in the evaluation of the final result

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Environmental

Analysis Report

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Sample Description: SL-840-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7312457
LL Group # 1440744
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/11/2013 14:40

Submitted: 12/13/2013 10:30
Reported: 01/08/2014 09:12

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

84000 SDG#: PH148-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-840-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7312457
LL Group # 1440744
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/11/2013 14:40

Submitted: 12/13/2013 10:30
Reported: 01/08/2014 09:12

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

84000 SDG#: PH148-02

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13352SLF026	12/31/2013 08:45	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	13352SLF026	12/19/2013 09:00	Anna E Stager	1
10401	21a Herbicides by EPA 8151A	SW-846 8151A	1	133500015A	12/19/2013 06:05	Melissa McDermott	1
10590	20a Pesticides by EPA 8081B	SW-846 8081B	1	133480013A	12/19/2013 16:14	Jamie L Brillhart	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	133480013A	12/16/2013 03:00	Sherry L Morrow	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	133500015A	12/16/2013 20:00	Elaine F Stoltzfus	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13353005	12/23/2013 20:44	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13353005	12/19/2013 11:30	Chin F Ly	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13352162401B	12/18/2013 21:53	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-541-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7312458
LL Group # 1440744
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/11/2013 13:25

Submitted: 12/13/2013 10:30
Reported: 01/08/2014 09:12

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

54100 SDG#: PH148-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.69	1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.34	1
12969	Anthracene	120-12-7	1.7	U	1.7	0.34	1
12969	Benzo(a)anthracene	56-55-3	1.7	U	1.7	0.69	1
12969	Benzo(a)pyrene	50-32-8	1.7	U	1.7	0.69	1
12969	Benzo(b)fluoranthene	205-99-2	1.7	U	1.7	0.69	1
12969	Benzo(e)pyrene	192-97-2	18	U	18	3.4	1
12969	Benzo(g,h,i)perylene	191-24-2	1.7	U	1.7	0.69	1
12969	Benzo(k)fluoranthene	207-08-9	1.7	U	1.7	0.69	1
12969	Butylbenzylphthalate	85-68-7	19	U	19	6.2	1
12969	Di-n-butylphthalate	84-74-2	19	U	19	6.2	1
12969	Chrysene	218-01-9	0.81	J	1.7	0.34	1
12969	Dibenz(a,h)anthracene	53-70-3	1.7	U	1.7	0.69	1
12969	Diethylphthalate	84-66-2	19	U	19	6.2	1
12969	Dimethylphthalate	131-11-3	19	U	19	6.2	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	19	U	19	6.2	1
12969	Fluoranthene	206-44-0	0.85	J	1.7	0.69	1
12969	Fluorene	86-73-7	1.7	U	1.7	0.69	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.7	U	1.7	0.69	1
12969	1-Methylnaphthalene	90-12-0	0.74	J	1.7	0.69	1
12969	2-Methylnaphthalene	91-57-6	0.93	J	1.7	0.69	1
12969	Naphthalene	91-20-3	1.8		1.7	0.69	1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.69	1
12969	Di-n-octylphthalate	117-84-0	19	U	19	6.2	1
12969	Phenanthrene	85-01-8	0.87	J	1.7	0.69	1
12969	Pyrene	129-00-0	0.74	J	1.7	0.69	1
Herbicides	**SW-846 8151A**		**ug/kg**		**ug/kg**	**ug/kg**	
10401	2,4-D	94-75-7	37	U	37	12	1
10401	Dalapon	75-99-0	93	U	93	46	1
10401	2,4-DB	94-82-6	18	U	18	6.4	1
10401	Dicamba	1918-00-9	12	U	12	4.2	1
10401	Dinoseb	88-85-7	25	U	25	9.3	1
	The QC window for dinoseb is advisory due to the erratic performance of the analyte using this method.						
10401	2,4-DP (Dichlorprop)	120-36-5	18	U	18	9.3	1
10401	MCPA	94-74-6	2,600	U	2,600	790	1
10401	MCPP (Mecoprop)	93-65-2	1,200	J	2,600	780	1
10401	2,4,5-T	93-76-5	2.1		1.8	0.85	1
10401	2,4,5-TP	93-72-1	1.8	U	1.8	0.78	1
Pesticides/PCBs	**SW-846 8081B**		**ug/kg**		**ug/kg**	**ug/kg**	
10590	Aldrin	309-00-2	0.86	U	0.86	0.18	1
10590	Alpha BHC	319-84-6	0.86	U	0.86	0.18	1
10590	Beta BHC	319-85-7	2.0	U	2.0	0.99	1
10590	Gamma BHC - Lindane	58-89-9	0.86	U	0.86	0.18	1
10590	Chlordane	57-74-9	18	U	18	4.1	1
10590	p,p-DDD	72-54-8	1.8	U	1.8	0.34	1
10590	p,p-DDE	72-55-9	1.8	U	1.8	0.34	1
10590	p,p-DDT	50-29-3	1.8	U	1.8	0.36	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-541-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7312458
LL Group # 1440744
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/11/2013 13:25

Submitted: 12/13/2013 10:30
Reported: 01/08/2014 09:12

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

54100 SDG#: PH148-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs	**SW-846 8081B**		**ug/kg**		**ug/kg**	**ug/kg**	
10590	Delta BHC	319-86-8	0.86	U	0.86	0.46	1
10590	Dieldrin	60-57-1	1.8	U	1.8	0.34	1
10590	Endosulfan I	959-98-8	0.86	U	0.86	0.23	1
10590	Endosulfan II	33213-65-9	1.8	U	1.8	0.34	1
10590	Endosulfan Sulfate	1031-07-8	1.8	U	1.8	0.34	1
10590	Endrin	72-20-8	1.8	U	1.8	0.34	1
10590	Endrin Aldehyde	7421-93-4	1.8	U	1.8	0.34	1
10590	Endrin Ketone	53494-70-5	1.9	U	1.9	0.62	1
10590	Heptachlor	76-44-8	0.86	U	0.86	0.18	1
10590	Heptachlor Epoxide	1024-57-3	0.86	U	0.86	0.18	1
10590	Methoxychlor	72-43-5	6.9	U	6.9	1.8	1
10590	Mirex	2385-85-5	0.62	J	1.8	0.36	1
10590	Toxaphene	8001-35-2	34	U	34	14	1
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	3.7		0.10	0.10	1

Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-541-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7312458
LL Group # 1440744
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/11/2013 13:25

Submitted: 12/13/2013 10:30
Reported: 01/08/2014 09:12

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

54100 SDG#: PH148-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	1.01	U	1.01	0.0988	1
11031	12378-PeCDD	40321-76-4	0.304	JQ	5.07	0.0781	1
11031	123478-HxCDD	39227-28-6	0.343	JQ	5.07	0.0535	1
11031	123678-HxCDD	57653-85-7	2.78	JB	5.07	0.0587	1
11031	123789-HxCDD	19408-74-3	0.878	JQ	5.07	0.0538	1
11031	1234678-HpCDD	35822-46-9	58.3	B	5.07	0.0826	1
11031	OCDD	3268-87-9	468	B	10.1	0.0595	1
11031	2378-TCDF	51207-31-9	0.134	J	1.01	0.0917	1
11031	12378-PeCDF	57117-41-6	0.316	JB	5.07	0.0435	1
11031	23478-PeCDF	57117-31-4	0.325	JBQ	5.07	0.0427	1
11031	123478-HxCDF	70648-26-9	0.426	JB	5.07	0.0479	1
11031	123678-HxCDF	57117-44-9	0.419	J	5.07	0.0442	1
11031	123789-HxCDF	72918-21-9	0.207	JBQ	5.07	0.0484	1
11031	234678-HxCDF	60851-34-5	0.577	JB	5.07	0.0436	1
11031	1234678-HpCDF	67562-39-4	14.5	B	5.07	0.0344	1
11031	1234789-HpCDF	55673-89-7	1.22	JB	5.07	0.0442	1
11031	OCDF	39001-02-0	38.3	B	10.1	0.0505	1
D/F Toxic Equivalents	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	1.34				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	51	25 - 164
13C12-12378-PeCDD	59	25 - 181
13C12-123478-HxCDD	74	32 - 141
13C12-123678-HxCDD	74	28 - 130
13C12-123789-HxCDD	72	28 - 130
13C12-1234678-HpCDD	80	23 - 140
13C12-OCDD	86	17 - 157
13C12-2378-TCDF	49	24 - 169
13C12-12378-PeCDF	58	24 - 185
13C12-23478-PeCDF	58	21 - 178
13C12-123478-HxCDF	68	26 - 152
13C12-123678-HxCDF	72	26 - 123
13C12-234678-HxCDF	71	28 - 136
13C12-123789-HxCDF	72	29 - 147
13C12-1234678-HpCDF	84	28 - 143
13C12-1234789-HpCDF	77	26 - 138
13C12-OCDF	79	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column

*=This limit was used in the evaluation of the final result

Sample Description: SL-541-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7312458
LL Group # 1440744
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/11/2013 13:25

Submitted: 12/13/2013 10:30
Reported: 01/08/2014 09:12

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

54100 SDG#: PH148-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-541-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7312458
LL Group # 1440744
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/11/2013 13:25

Submitted: 12/13/2013 10:30
Reported: 01/08/2014 09:12

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

54100 SDG#: PH148-03

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13352SLF026	12/31/2013 09:17	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	13352SLF026	12/19/2013 09:00	Anna E Stager	1
10401	21a Herbicides by EPA 8151A	SW-846 8151A	1	133500015A	12/19/2013 06:32	Melissa McDermott	1
10590	20a Pesticides by EPA 8081B	SW-846 8081B	1	133480013A	12/19/2013 16:29	Jamie L Brillhart	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	133480013A	12/16/2013 03:00	Sherry L Morrow	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	133500015A	12/16/2013 20:00	Elaine F Stoltzfus	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13353005	12/23/2013 21:41	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13353005	12/19/2013 11:30	Chin F Ly	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13352162401B	12/18/2013 21:53	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-542-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7312459
LL Group # 1440744
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/11/2013 12:35

Submitted: 12/13/2013 10:30
Reported: 01/08/2014 09:12

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

54200 SDG#: PH148-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.8	U	1.8	0.70	1
12969	Acenaphthylene	208-96-8	1.8	U	1.8	0.35	1
12969	Anthracene	120-12-7	1.8	U	1.8	0.35	1
12969	Benzo(a)anthracene	56-55-3	1.0	J	1.8	0.70	1
12969	Benzo(a)pyrene	50-32-8	1.7	J	1.8	0.70	1
12969	Benzo(b)fluoranthene	205-99-2	3.8		1.8	0.70	1
12969	Benzo(e)pyrene	192-97-2	18	U	18	3.5	1
12969	Benzo(g,h,i)perylene	191-24-2	1.2	J	1.8	0.70	1
12969	Benzo(k)fluoranthene	207-08-9	1.4	J	1.8	0.70	1
12969	Butylbenzylphthalate	85-68-7	19	U	19	6.3	1
12969	Di-n-butylphthalate	84-74-2	19	U	19	6.3	1
12969	Chrysene	218-01-9	4.2		1.8	0.35	1
12969	Dibenz(a,h)anthracene	53-70-3	1.8	U	1.8	0.70	1
12969	Diethylphthalate	84-66-2	19	U	19	6.3	1
12969	Dimethylphthalate	131-11-3	19	U	19	6.3	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	8.1	J	19	6.3	1
12969	Fluoranthene	206-44-0	2.4		1.8	0.70	1
12969	Fluorene	86-73-7	16		1.8	0.70	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.8	U	1.8	0.70	1
12969	1-Methylnaphthalene	90-12-0	0.85	J	1.8	0.70	1
12969	2-Methylnaphthalene	91-57-6	1.8		1.8	0.70	1
12969	Naphthalene	91-20-3	3.5		1.8	0.70	1
12969	N-Nitrosodimethylamine	62-75-9	1.8	U	1.8	0.70	1
12969	Di-n-octylphthalate	117-84-0	19	U	19	6.3	1
12969	Phenanthrene	85-01-8	2.4		1.8	0.70	1
12969	Pyrene	129-00-0	2.3		1.8	0.70	1
Herbicides	**SW-846 8151A**		**ug/kg**		**ug/kg**	**ug/kg**	
10401	2,4-D	94-75-7	38	U	38	13	1
10401	Dalapon	75-99-0	96	U	96	47	1
10401	2,4-DB	94-82-6	18	U	18	11	1
10401	Dicamba	1918-00-9	13	U	13	4.3	1
10401	Dinoseb	88-85-7	26	U	26	9.6	1
	The QC window for dinoseb is advisory due to the erratic performance of the analyte using this method.						
10401	2,4-DP (Dichlorprop)	120-36-5	18	U	18	9.6	1
10401	MCPA	94-74-6	2,700	U	2,700	810	1
10401	MCPP (Mecoprop)	93-65-2	1,300	J	2,700	800	1
10401	2,4,5-T	93-76-5	1.8	U	1.8	0.88	1
10401	2,4,5-TP	93-72-1	1.8	U	1.8	0.80	1
	Reporting limits were raised due to interference from the sample matrix.						
Pesticides/PCBs	**SW-846 8081B**		**ug/kg**		**ug/kg**	**ug/kg**	
10590	Aldrin	309-00-2	0.88	U	0.88	0.18	1
10590	Alpha BHC	319-84-6	0.88	U	0.88	0.18	1
10590	Beta BHC	319-85-7	2.0	U	2.0	1.0	1
10590	Gamma BHC - Lindane	58-89-9	0.88	U	0.88	0.46	1
10590	Chlordane	57-74-9	18	U	18	4.2	1
10590	p,p-DDD	72-54-8	1.8	U	1.8	0.35	1
10590	p,p-DDE	72-55-9	1.2	J	1.8	0.35	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-542-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7312459
LL Group # 1440744
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/11/2013 12:35

Submitted: 12/13/2013 10:30
Reported: 01/08/2014 09:12

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

54200 SDG#: PH148-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs	**SW-846 8081B**		**ug/kg**		**ug/kg**	**ug/kg**	
10590	p,p-DDT	50-29-3	2.3		1.8	0.37	1
10590	Delta BHC	319-86-8	0.74	J	0.88	0.48	1
10590	Dieldrin	60-57-1	1.8	U	1.8	0.35	1
10590	Endosulfan I	959-98-8	0.88	U	0.88	0.23	1
10590	Endosulfan II	33213-65-9	1.8	U	1.8	0.35	1
10590	Endosulfan Sulfate	1031-07-8	1.8	U	1.8	0.35	1
10590	Endrin	72-20-8	1.8	U	1.8	0.35	1
10590	Endrin Aldehyde	7421-93-4	1.8	U	1.8	0.35	1
10590	Endrin Ketone	53494-70-5	1.9	U	1.9	0.64	1
10590	Heptachlor	76-44-8	0.88	U	0.88	0.18	1
10590	Heptachlor Epoxide	1024-57-3	0.93	U	0.93	0.93	1
10590	Methoxychlor	72-43-5	7.1	U	7.1	1.8	1
10590	Mirex	2385-85-5	1.8	U	1.8	0.37	1
10590	Toxaphene	8001-35-2	35	U	35	15	1
	Reporting limits were raised due to interference from the sample matrix.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	6.4		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

*=This limit was used in the evaluation of the final result

Sample Description: SL-542-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7312459
LL Group # 1440744
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/11/2013 12:35

Submitted: 12/13/2013 10:30
Reported: 01/08/2014 09:12

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

54200 SDG#: PH148-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	2378-TCDD	1746-01-6	1.07	U	1.07	0.0863	1
11031	12378-PeCDD	40321-76-4	0.151	JQ	5.34	0.0613	1
11031	123478-HxCDD	39227-28-6	0.404	JQ	5.34	0.0473	1
11031	123678-HxCDD	57653-85-7	2.03	JB	5.34	0.0521	1
11031	123789-HxCDD	19408-74-3	0.799	J	5.34	0.0481	1
11031	1234678-HpCDD	35822-46-9	44.8	B	5.34	0.0732	1
11031	OCDD	3268-87-9	453	B	10.7	0.0563	1
11031	2378-TCDF	51207-31-9	0.127	JQ	1.07	0.0786	1
11031	12378-PeCDF	57117-41-6	0.402	JB	5.34	0.0363	1
11031	23478-PeCDF	57117-31-4	0.345	JBQ	5.34	0.0365	1
11031	123478-HxCDF	70648-26-9	0.366	JBQ	5.34	0.0386	1
11031	123678-HxCDF	57117-44-9	0.382	J	5.34	0.0357	1
11031	123789-HxCDF	72918-21-9	0.0701	JBQ	5.34	0.0577	1
11031	234678-HxCDF	60851-34-5	0.626	JB	5.34	0.0361	1
11031	1234678-HpCDF	67562-39-4	10.8	B	5.34	0.0328	1
11031	1234789-HpCDF	55673-89-7	0.930	JB	5.34	0.0491	1
11031	OCDF	39001-02-0	28.7	B	10.7	0.0528	1
D/F Toxic Equivalents	**EPA 1613B**		**ng/kg**		**ng/kg**	**ng/kg**	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	1.11				1

Labeled Compounds	**%Rec**	**Windows**
13C12-2378-TCDD	65	25 - 164
13C12-12378-PeCDD	72	25 - 181
13C12-123478-HxCDD	77	32 - 141
13C12-123678-HxCDD	78	28 - 130
13C12-123789-HxCDD	77	28 - 130
13C12-1234678-HpCDD	77	23 - 140
13C12-OCDD	77	17 - 157
13C12-2378-TCDF	61	24 - 169
13C12-12378-PeCDF	73	24 - 185
13C12-23478-PeCDF	70	21 - 178
13C12-123478-HxCDF	73	26 - 152
13C12-123678-HxCDF	77	26 - 123
13C12-234678-HxCDF	76	28 - 136
13C12-123789-HxCDF	58	29 - 147
13C12-1234678-HpCDF	87	28 - 143
13C12-1234789-HpCDF	71	26 - 138
13C12-OCDF	70	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column

*=This limit was used in the evaluation of the final result

Sample Description: SL-542-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7312459
LL Group # 1440744
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/11/2013 12:35

Submitted: 12/13/2013 10:30
Reported: 01/08/2014 09:12

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

54200 SDG#: PH148-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-542-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7312459
LL Group # 1440744
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/11/2013 12:35

Submitted: 12/13/2013 10:30
Reported: 01/08/2014 09:12

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

54200 SDG#: PH148-04

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13352SLF026	12/31/2013 09:50	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	13352SLF026	12/19/2013 09:00	Anna E Stager	1
10401	21a Herbicides by EPA 8151A	SW-846 8151A	1	133500015A	12/19/2013 06:59	Melissa McDermott	1
10590	20a Pesticides by EPA 8081B	SW-846 8081B	1	133480013A	12/19/2013 16:44	Jamie L Brillhart	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	133480013A	12/16/2013 03:00	Sherry L Morrow	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	133500015A	12/16/2013 20:00	Elaine F Stoltzfus	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13353005	12/24/2013 01:35	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13353005	12/19/2013 11:30	Chin F Ly	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13352162401B	12/18/2013 21:53	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-539-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7312460
LL Group # 1440744
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/12/2013 09:30

Submitted: 12/13/2013 10:30
Reported: 01/08/2014 09:12

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

53900 SDG#: PH148-05

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		ug/kg		ug/kg	ug/kg	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.69	1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.35	1
12969	Anthracene	120-12-7	0.38	J	1.7	0.35	1
12969	Benzo(a)anthracene	56-55-3	0.80	J	1.7	0.69	1
12969	Benzo(a)pyrene	50-32-8	1.4	J	1.7	0.69	1
12969	Benzo(b)fluoranthene	205-99-2	2.6		1.7	0.69	1
12969	Benzo(e)pyrene	192-97-2	18	U	18	3.5	1
12969	Benzo(g,h,i)perylene	191-24-2	0.85	J	1.7	0.69	1
12969	Benzo(k)fluoranthene	207-08-9	0.86	J	1.7	0.69	1
12969	Butylbenzylphthalate	85-68-7	19	U	19	6.2	1
12969	Di-n-butylphthalate	84-74-2	19	U	19	6.2	1
12969	Chrysene	218-01-9	2.7		1.7	0.35	1
12969	Dibenz(a,h)anthracene	53-70-3	1.7	U	1.7	0.69	1
12969	Diethylphthalate	84-66-2	19	U	19	6.2	1
12969	Dimethylphthalate	131-11-3	19	U	19	6.2	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	13	J	19	6.2	1
12969	Fluoranthene	206-44-0	2.8		1.7	0.69	1
12969	Fluorene	86-73-7	1.7	U	1.7	0.69	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.7	U	1.7	0.69	1
12969	1-Methylnaphthalene	90-12-0	1.7	U	1.7	0.69	1
12969	2-Methylnaphthalene	91-57-6	1.7	U	1.7	0.69	1
12969	Naphthalene	91-20-3	2.3		1.7	0.69	1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.69	1
12969	Di-n-octylphthalate	117-84-0	19	U	19	6.2	1
12969	Phenanthrene	85-01-8	1.8		1.7	0.69	1
12969	Pyrene	129-00-0	2.6		1.7	0.69	1
Pesticides/PCBs	**SW-846 8081B**		ug/kg		ug/kg	ug/kg	
10590	Aldrin	309-00-2	0.87	U	0.87	0.18	1
10590	Alpha BHC	319-84-6	0.87	U	0.87	0.18	1
10590	Beta BHC	319-85-7	2.0	U	2.0	1.0	1
10590	Gamma BHC - Lindane	58-89-9	0.87	U	0.87	0.18	1
10590	Chlordane	57-74-9	18	U	18	4.2	1
10590	p,p-DDD	72-54-8	1.8	U	1.8	0.35	1
10590	p,p-DDE	72-55-9	1.5	J	1.8	0.35	1
10590	p,p-DDT	50-29-3	1.6	J	1.8	0.37	1
10590	Delta BHC	319-86-8	0.87	U	0.87	0.47	1
10590	Dieldrin	60-57-1	0.43	J	1.8	0.35	1
10590	Endosulfan I	959-98-8	0.87	U	0.87	0.23	1
10590	Endosulfan II	33213-65-9	1.8	U	1.8	0.35	1
10590	Endosulfan Sulfate	1031-07-8	1.8	U	1.8	0.35	1
10590	Endrin	72-20-8	0.39	J	1.8	0.35	1
10590	Endrin Aldehyde	7421-93-4	0.55	J	1.8	0.35	1
10590	Endrin Ketone	53494-70-5	1.9	U	1.9	0.63	1
10590	Heptachlor	76-44-8	0.87	U	0.87	0.18	1
10590	Heptachlor Epoxide	1024-57-3	0.87	U	0.87	0.18	1
10590	Methoxychlor	72-43-5	7.0	U	7.0	1.8	1
10590	Mirex	2385-85-5	1.8	U	1.8	0.37	1
10590	Toxaphene	8001-35-2	35	U	35	15	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-539-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7312460
LL Group # 1440744
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/12/2013 09:30

Submitted: 12/13/2013 10:30
Reported: 01/08/2014 09:12

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

53900 SDG#: PH148-05

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	26	U	26	11	5
12952	EFH (C15-C20)	n.a.	21	J	26	11	5
12952	EFH (C21-C30)	n.a.	120		26	11	5
12952	EFH (C30-C40)	n.a.	240		53	21	5
12952	EFH (C8-C11)	n.a.	26	U	26	11	5
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	5.5		0.10	0.10	1

Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-539-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7312460
LL Group # 1440744
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/12/2013 09:30

Submitted: 12/13/2013 10:30
Reported: 01/08/2014 09:12

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

53900 SDG#: PH148-05

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	1.03	U	1.03	0.0839	1
11031	12378-PeCDD	40321-76-4	0.129	JQ	5.17	0.0494	1
11031	123478-HxCDD	39227-28-6	0.151	J	5.17	0.0451	1
11031	123678-HxCDD	57653-85-7	0.280	JBQ	5.17	0.0471	1
11031	123789-HxCDD	19408-74-3	0.297	J	5.17	0.0452	1
11031	1234678-HpCDD	35822-46-9	3.90	JB	5.17	0.0404	1
11031	OCDD	3268-87-9	33.8	B	10.3	0.0283	1
11031	2378-TCDF	51207-31-9	0.246	JQ	1.03	0.0810	1
11031	12378-PeCDF	57117-41-6	0.200	JB	5.17	0.0369	1
11031	23478-PeCDF	57117-31-4	0.430	JB	5.17	0.0339	1
11031	123478-HxCDF	70648-26-9	0.131	JBQ	5.17	0.0325	1
11031	123678-HxCDF	57117-44-9	0.169	JQ	5.17	0.0297	1
11031	123789-HxCDF	72918-21-9	0.0803	JB	5.17	0.0352	1
11031	234678-HxCDF	60851-34-5	0.185	JB	5.17	0.0299	1
11031	1234678-HpCDF	67562-39-4	1.01	JBQ	5.17	0.0360	1
11031	1234789-HpCDF	55673-89-7	0.190	JBQ	5.17	0.0493	1
11031	OCDF	39001-02-0	2.03	JB	10.3	0.0448	1
D/F Toxic Equivalents	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.256				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	60	25 - 164
13C12-12378-PeCDD	72	25 - 181
13C12-123478-HxCDD	75	32 - 141
13C12-123678-HxCDD	76	28 - 130
13C12-123789-HxCDD	74	28 - 130
13C12-1234678-HpCDD	79	23 - 140
13C12-OCDD	78	17 - 157
13C12-2378-TCDF	57	24 - 169
13C12-12378-PeCDF	70	24 - 185
13C12-23478-PeCDF	69	21 - 178
13C12-123478-HxCDF	72	26 - 152
13C12-123678-HxCDF	77	26 - 123
13C12-234678-HxCDF	74	28 - 136
13C12-123789-HxCDF	71	29 - 147
13C12-1234678-HpCDF	86	28 - 143
13C12-1234789-HpCDF	73	26 - 138
13C12-OCDF	73	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column

*=This limit was used in the evaluation of the final result

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Environmental

Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: SL-539-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7312460
LL Group # 1440744
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/12/2013 09:30

Submitted: 12/13/2013 10:30
Reported: 01/08/2014 09:12

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

53900 SDG#: PH148-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

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Lancaster Laboratories Environmental
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Analysis Report

Sample Description: SL-539-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7312460
LL Group # 1440744
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/12/2013 09:30

Submitted: 12/13/2013 10:30
Reported: 01/08/2014 09:12

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

53900 SDG#: PH148-05

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13352SLF026	12/31/2013 10:23	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	13352SLF026	12/19/2013 09:00	Anna E Stager	1
10590	20a Pesticides by EPA 8081B	SW-846 8081B	1	133480013A	12/19/2013 16:59	Jamie L Brillhart	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	133480013A	12/16/2013 03:00	Sherry L Morrow	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	133530025A	12/23/2013 15:13	Tracy A Cole	5
12959	EFH soil ext.(microwave)	SW-846 3546	1	133530025A	12/20/2013 09:15	Katheryne V Sponheimer	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13353005	12/24/2013 02:32	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13353005	12/19/2013 11:30	Chin F Ly	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13352162401B	12/18/2013 21:53	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-543-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7312461
LL Group # 1440744
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/12/2013 13:40

Submitted: 12/13/2013 10:30
Reported: 01/08/2014 09:12

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

54300 SDG#: PH148-06

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	17	U	17	6.9	10
12969	Acenaphthylene	208-96-8	17	U	17	3.4	10
12969	Anthracene	120-12-7	17	U	17	3.4	10
12969	Benzo(a)anthracene	56-55-3	17	U	17	6.9	10
12969	Benzo(a)pyrene	50-32-8	17	U	17	6.9	10
12969	Benzo(b)fluoranthene	205-99-2	17	U	17	6.9	10
12969	Benzo(e)pyrene	192-97-2	180	U	180	34	10
12969	Benzo(g,h,i)perylene	191-24-2	17	U	17	6.9	10
12969	Benzo(k)fluoranthene	207-08-9	17	U	17	6.9	10
12969	Butylbenzylphthalate	85-68-7	190	U	190	62	10
12969	Di-n-butylphthalate	84-74-2	190	U	190	62	10
12969	Chrysene	218-01-9	8.1	J	17	3.4	10
12969	Dibenz(a,h)anthracene	53-70-3	17	U	17	6.9	10
12969	Diethylphthalate	84-66-2	190	U	190	62	10
12969	Dimethylphthalate	131-11-3	190	U	190	62	10
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	190	U	190	62	10
12969	Fluoranthene	206-44-0	17	U	17	6.9	10
12969	Fluorene	86-73-7	17	U	17	6.9	10
12969	Indeno(1,2,3-cd)pyrene	193-39-5	17	U	17	6.9	10
12969	1-Methylnaphthalene	90-12-0	17	U	17	6.9	10
12969	2-Methylnaphthalene	91-57-6	17	U	17	6.9	10
12969	Naphthalene	91-20-3	17	U	17	6.9	10
12969	N-Nitrosodimethylamine	62-75-9	17	U	17	6.9	10
12969	Di-n-octylphthalate	117-84-0	190	U	190	62	10
12969	Phenanthrene	85-01-8	17	U	17	6.9	10
12969	Pyrene	129-00-0	17	U	17	6.9	10
	Reporting limits were raised due to interference from the sample matrix.						
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	26	U	26	10	5
12952	EFH (C15-C20)	n.a.	26	U	26	10	5
12952	EFH (C21-C30)	n.a.	72		26	10	5
12952	EFH (C30-C40)	n.a.	170		52	21	5
12952	EFH (C8-C11)	n.a.	26	U	26	10	5
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	4.0		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-543-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7312461
LL Group # 1440744
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/12/2013 13:40

Submitted: 12/13/2013 10:30
Reported: 01/08/2014 09:12

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

54300 SDG#: PH148-06

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13352SLF026	12/31/2013 10:55	Mark A Clark	10
10811	BNA Soil Microwave SIM	SW-846 3546	1	13352SLF026	12/19/2013 09:00	Anna E Stager	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	133530025A	12/23/2013 15:56	Tracy A Cole	5
12959	EFH soil ext.(microwave)	SW-846 3546	1	133530025A	12/20/2013 09:15	Katheryne V Sponheimer	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13352162401B	12/18/2013 21:53	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-544-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7312462
LL Group # 1440744
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/12/2013 14:20

Submitted: 12/13/2013 10:30
Reported: 01/08/2014 09:12

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

54400 SDG#: PH148-07BKG

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.68	1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.34	1
12969	Anthracene	120-12-7	1.7	U	1.7	0.34	1
12969	Benzo(a)anthracene	56-55-3	1.2	J	1.7	0.68	1
12969	Benzo(a)pyrene	50-32-8	1.2	J	1.7	0.68	1
12969	Benzo(b)fluoranthene	205-99-2	2.5		1.7	0.68	1
12969	Benzo(e)pyrene	192-97-2	17	U	17	3.4	1
12969	Benzo(g,h,i)perylene	191-24-2	1.7	U	1.7	0.68	1
12969	Benzo(k)fluoranthene	207-08-9	1.0	J	1.7	0.68	1
12969	Butylbenzylphthalate	85-68-7	18	U	18	6.1	1
12969	Di-n-butylphthalate	84-74-2	18	U	18	6.1	1
12969	Chrysene	218-01-9	2.1		1.7	0.34	1
12969	Dibenz(a,h)anthracene	53-70-3	1.7	U	1.7	0.68	1
12969	Diethylphthalate	84-66-2	18	U	18	6.1	1
12969	Dimethylphthalate	131-11-3	18	U	18	6.1	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	18	U	18	6.1	1
12969	Fluoranthene	206-44-0	2.1		1.7	0.68	1
12969	Fluorene	86-73-7	1.7	U	1.7	0.68	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.7	U	1.7	0.68	1
12969	1-Methylnaphthalene	90-12-0	0.72	J	1.7	0.68	1
12969	2-Methylnaphthalene	91-57-6	0.85	J	1.7	0.68	1
12969	Naphthalene	91-20-3	1.7		1.7	0.68	1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.68	1
12969	Di-n-octylphthalate	117-84-0	18	U	18	6.1	1
12969	Phenanthrene	85-01-8	1.5	J	1.7	0.68	1
12969	Pyrene	129-00-0	2.0		1.7	0.68	1
Pesticides/PCBs	**SW-846 8081B**		**ug/kg**		**ug/kg**	**ug/kg**	
10590	Aldrin	309-00-2	0.86	U	0.86	0.18	1
10590	Alpha BHC	319-84-6	0.86	U	0.86	0.18	1
10590	Beta BHC	319-85-7	2.0	U	2.0	1.0	1
10590	Gamma BHC - Lindane	58-89-9	0.86	U	0.86	0.18	1
10590	Chlordane	57-74-9	18	U	18	4.2	1
10590	p,p-DDD	72-54-8	1.8	U	1.8	0.34	1
10590	p,p-DDE	72-55-9	0.64	J	1.8	0.34	1
10590	p,p-DDT	50-29-3	0.90	J	1.8	0.36	1
10590	Delta BHC	319-86-8	0.86	U	0.86	0.47	1
10590	Dieldrin	60-57-1	1.8	U	1.8	0.34	1
10590	Endosulfan I	959-98-8	0.86	U	0.86	0.23	1
10590	Endosulfan II	33213-65-9	1.8	U	1.8	0.34	1
10590	Endosulfan Sulfate	1031-07-8	1.8	U	1.8	0.34	1
10590	Endrin	72-20-8	1.8	U	1.8	0.34	1
10590	Endrin Aldehyde	7421-93-4	1.8	U	1.8	0.34	1
10590	Endrin Ketone	53494-70-5	1.9	U	1.9	0.62	1
10590	Heptachlor	76-44-8	0.86	U	0.86	0.18	1
10590	Heptachlor Epoxide	1024-57-3	0.86	U	0.86	0.18	1
10590	Methoxychlor	72-43-5	7.0	U	7.0	1.8	1
10590	Mirex	2385-85-5	1.8	U	1.8	0.36	1
10590	Toxaphene	8001-35-2	34	U	34	15	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-544-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7312462
LL Group # 1440744
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/12/2013 14:20

Submitted: 12/13/2013 10:30
Reported: 01/08/2014 09:12

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

54400 SDG#: PH148-07BKG

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.1	U	5.1	2.1	1
12952	EFH (C15-C20)	n.a.	5.1	U	5.1	2.1	1
12952	EFH (C21-C30)	n.a.	15		5.1	2.1	1
12952	EFH (C30-C40)	n.a.	30		10	4.1	1
12952	EFH (C8-C11)	n.a.	5.1	U	5.1	2.1	1
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	9,680		39.9	7.20	1
06944	Antimony	7440-36-0	3.99	U	3.99	0.739	1
06935	Arsenic	7440-38-2	2.84	J	3.99	0.699	1
06946	Barium	7440-39-3	65.1		0.998	0.0329	1
06947	Beryllium	7440-41-7	0.359	J	0.998	0.0669	1
07914	Boron	7440-42-8	8.30	J	9.98	0.839	1
06949	Cadmium	7440-43-9	0.464	J	0.998	0.0759	1
01650	Calcium	7440-70-2	2,090		20.0	3.33	1
06951	Chromium	7440-47-3	13.8		3.00	0.160	1
06952	Cobalt	7440-48-4	4.46		0.998	0.0988	1
06953	Copper	7440-50-8	3.80		2.00	0.290	1
01654	Iron	7439-89-6	17,600		39.9	3.61	1
06955	Lead	7439-92-1	6.86		3.00	0.499	1
01656	Lithium	7439-93-2	25.5		4.0	0.34	1
01657	Magnesium	7439-95-4	3,920		9.98	1.67	1
06958	Manganese	7439-96-5	276		0.998	0.0829	1
06960	Molybdenum	7439-98-7	0.329	J	2.00	0.170	1
06961	Nickel	7440-02-0	8.13		2.00	0.130	1
10145	Phosphorus	7723-14-0	385		9.98	2.89	1
01662	Potassium	7440-09-7	2,770		99.8	8.33	1
01667	Sodium	7440-23-5	53.9	J	99.8	16.7	1
06969	Tin	7440-31-5	2.33	J	9.98	0.220	1
06970	Titanium	7440-32-6	871		0.998	0.170	1
06971	Vanadium	7440-62-2	27.3		0.998	0.130	1
06972	Zinc	7440-66-6	51.6		3.99	0.200	1
10146	Zirconium	7440-67-7	0.877	J	4.99	0.839	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.284	J	0.399	0.0998	2
06142	Silver	7440-22-4	0.0426	J	0.200	0.0260	2
06144	Strontium	7440-24-6	9.84		0.399	0.0679	2
06145	Thallium	7440-28-0	0.218		0.200	0.0300	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0109	J	0.0170	0.0102	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045D	n.a.	6.47		0.0100	0.0100	1
	The pH was measured in water at 19.2 C.						

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-544-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7312462
LL Group # 1440744
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/12/2013 14:20

Submitted: 12/13/2013 10:30
Reported: 01/08/2014 09:12

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

54400 SDG#: PH148-07BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Wet Chemistry	**EPA 160.3 modified**		%	%	%	
11624	14a Moisture Content by 160.3	n.a.	3.7	0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.					

*=This limit was used in the evaluation of the final result

Sample Description: SL-544-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7312462
LL Group # 1440744
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/12/2013 14:20

Submitted: 12/13/2013 10:30
Reported: 01/08/2014 09:12

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

54400 SDG#: PH148-07BKG

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.993	U	0.993	0.0937	1
11031	12378-PeCDD	40321-76-4	0.126	JQ	4.96	0.0562	1
11031	123478-HxCDD	39227-28-6	0.133	JQ	4.96	0.0418	1
11031	123678-HxCDD	57653-85-7	0.474	JB	4.96	0.0447	1
11031	123789-HxCDD	19408-74-3	0.429	J	4.96	0.0418	1
11031	1234678-HpCDD	35822-46-9	4.41	JB	4.96	0.0420	1
11031	OCDD	3268-87-9	43.6	B	9.93	0.0344	1
11031	2378-TCDF	51207-31-9	0.126	J	0.993	0.0872	1
11031	12378-PeCDF	57117-41-6	0.229	JB	4.96	0.0343	1
11031	23478-PeCDF	57117-31-4	0.250	JB	4.96	0.0325	1
11031	123478-HxCDF	70648-26-9	0.165	JB	4.96	0.0326	1
11031	123678-HxCDF	57117-44-9	0.214	JQ	4.96	0.0294	1
11031	123789-HxCDF	72918-21-9	0.150	JBQ	4.96	0.0342	1
11031	234678-HxCDF	60851-34-5	0.232	JB	4.96	0.0309	1
11031	1234678-HpCDF	67562-39-4	1.99	JB	4.96	0.0270	1
11031	1234789-HpCDF	55673-89-7	0.161	JB	4.96	0.0388	1
11031	OCDF	39001-02-0	2.24	JB	9.93	0.0456	1
D/F Toxic Equivalents	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.304				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	54	25 - 164
13C12-12378-PeCDD	65	25 - 181
13C12-123478-HxCDD	78	32 - 141
13C12-123678-HxCDD	77	28 - 130
13C12-123789-HxCDD	76	28 - 130
13C12-1234678-HpCDD	81	23 - 140
13C12-OCDD	81	17 - 157
13C12-2378-TCDF	50	24 - 169
13C12-12378-PeCDF	63	24 - 185
13C12-23478-PeCDF	61	21 - 178
13C12-123478-HxCDF	68	26 - 152
13C12-123678-HxCDF	76	26 - 123
13C12-234678-HxCDF	73	28 - 136
13C12-123789-HxCDF	73	29 - 147
13C12-1234678-HpCDF	91	28 - 143
13C12-1234789-HpCDF	70	26 - 138
13C12-OCDF	68	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column

*=This limit was used in the evaluation of the final result

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Environmental

Analysis Report

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Sample Description: SL-544-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7312462
LL Group # 1440744
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/12/2013 14:20

Submitted: 12/13/2013 10:30
Reported: 01/08/2014 09:12

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

54400 SDG#: PH148-07BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-544-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7312462
LL Group # 1440744
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/12/2013 14:20

Submitted: 12/13/2013 10:30
Reported: 01/08/2014 09:12

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

54400 SDG#: PH148-07BKG

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13354SLB026	01/02/2014	07:15	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	13354SLB026	12/23/2013	06:30	Olivia Arosemena	1
10590	20a Pesticides by EPA 8081B	SW-846 8081B	1	133520007A	12/23/2013	16:18	Jamie L Brillhart	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	133520007A	12/18/2013	18:35	Sally L Appleyard	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	133530025A	12/23/2013	13:47	Tracy A Cole	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	133530025A	12/20/2013	09:15	Katheryne V Sponheimer	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13353005	12/24/2013	03:28	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13353005	12/19/2013	11:30	Chin F Ly	1
01643	Aluminum	SW-846 6010C	1	133540637001	12/27/2013	03:30	Tara L Snyder	1
06944	Antimony	SW-846 6010C	1	133540637001	12/27/2013	03:30	Tara L Snyder	1
06935	Arsenic	SW-846 6010C	1	133540637001	12/27/2013	03:30	Tara L Snyder	1
06946	Barium	SW-846 6010C	1	133540637001	12/27/2013	03:30	Tara L Snyder	1
06947	Beryllium	SW-846 6010C	1	133540637001	12/27/2013	03:30	Tara L Snyder	1
07914	Boron	SW-846 6010C	1	133540637001	12/27/2013	03:30	Tara L Snyder	1
06949	Cadmium	SW-846 6010C	1	133540637001	12/27/2013	03:30	Tara L Snyder	1
01650	Calcium	SW-846 6010C	1	133540637001	12/27/2013	03:30	Tara L Snyder	1
06951	Chromium	SW-846 6010C	1	133540637001	12/27/2013	03:30	Tara L Snyder	1
06952	Cobalt	SW-846 6010C	1	133540637001	12/27/2013	03:30	Tara L Snyder	1
06953	Copper	SW-846 6010C	1	133540637001	12/27/2013	03:30	Tara L Snyder	1
01654	Iron	SW-846 6010C	1	133540637001	12/27/2013	03:30	Tara L Snyder	1
06955	Lead	SW-846 6010C	1	133540637001	12/27/2013	10:52	Joanne M Gates	1
01656	Lithium	SW-846 6010C	1	133540637001	12/26/2013	10:34	John W Yanzuk II	1
01657	Magnesium	SW-846 6010C	1	133540637001	12/27/2013	03:30	Tara L Snyder	1
06958	Manganese	SW-846 6010C	1	133540637001	12/27/2013	03:30	Tara L Snyder	1
06960	Molybdenum	SW-846 6010C	1	133540637001	12/26/2013	10:34	John W Yanzuk II	1
06961	Nickel	SW-846 6010C	1	133540637001	12/27/2013	03:30	Tara L Snyder	1
10145	Phosphorus	SW-846 6010C	1	133540637001	12/27/2013	03:30	Tara L Snyder	1
01662	Potassium	SW-846 6010C	1	133540637001	12/27/2013	03:30	Tara L Snyder	1
01667	Sodium	SW-846 6010C	1	133540637001	12/26/2013	10:34	John W Yanzuk II	1
06969	Tin	SW-846 6010C	1	133540637001	12/27/2013	03:30	Tara L Snyder	1
06970	Titanium	SW-846 6010C	1	133540637001	12/27/2013	03:30	Tara L Snyder	1
06971	Vanadium	SW-846 6010C	1	133540637001	12/27/2013	03:30	Tara L Snyder	1
06972	Zinc	SW-846 6010C	1	133540637001	12/27/2013	03:30	Tara L Snyder	1
10146	Zirconium	SW-846 6010C	1	133540637001	12/26/2013	10:34	John W Yanzuk II	1
06141	Selenium	SW-846 6020A	1	133540637001B	01/04/2014	00:14	John P Hook	2
06142	Silver	SW-846 6020A	1	133540637001A	01/04/2014	00:14	John P Hook	2
06144	Strontium	SW-846 6020A	1	133540637001A	01/04/2014	00:14	John P Hook	2

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-544-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7312462
LL Group # 1440744
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/12/2013 14:20

Submitted: 12/13/2013 10:30
Reported: 01/08/2014 09:12

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

54400 SDG#: PH148-07BKG

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06145	Thallium	SW-846 6020A	1	133540637001A	01/04/2014 00:14	John P Hook	2
00159	3a Mercury 7471A	SW-846 7471B	1	133540638001	12/23/2013 09:54	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	133540637001	12/22/2013 08:29	James L Mertz	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	133540638001	12/22/2013 10:33	James L Mertz	1
00394	15a pH by 9045D	SW-846 9045D modified	1	13347039401A	12/13/2013 17:00	Carolyn M Mastropietro	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13352162401C	12/18/2013 21:53	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-544-NBZ-SB-0.0-0.5MS Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7312463
LL Group # 1440744
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/12/2013 14:20

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Reported: 01/08/2014 09:12

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

54400 SDG#: PH148-07MS

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	29		1.7	0.68	1
12969	Acenaphthylene	208-96-8	29		1.7	0.34	1
12969	Anthracene	120-12-7	29		1.7	0.34	1
12969	Benzo(a)anthracene	56-55-3	32		1.7	0.68	1
12969	Benzo(a)pyrene	50-32-8	31		1.7	0.68	1
12969	Benzo(b)fluoranthene	205-99-2	35		1.7	0.68	1
12969	Benzo(e)pyrene	192-97-2	30		17	3.4	1
12969	Benzo(g,h,i)perylene	191-24-2	18		1.7	0.68	1
12969	Benzo(k)fluoranthene	207-08-9	35		1.7	0.68	1
12969	Butylbenzylphthalate	85-68-7	33		18	6.1	1
12969	Di-n-butylphthalate	84-74-2	29		18	6.1	1
12969	Chrysene	218-01-9	33		1.7	0.34	1
12969	Dibenz(a,h)anthracene	53-70-3	21		1.7	0.68	1
12969	Diethylphthalate	84-66-2	31		18	6.1	1
12969	Dimethylphthalate	131-11-3	32		18	6.1	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	34		18	6.1	1
12969	Fluoranthene	206-44-0	31		1.7	0.68	1
12969	Fluorene	86-73-7	31		1.7	0.68	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	21		1.7	0.68	1
12969	1-Methylnaphthalene	90-12-0	34		1.7	0.68	1
12969	2-Methylnaphthalene	91-57-6	34		1.7	0.68	1
12969	Naphthalene	91-20-3	31		1.7	0.68	1
12969	N-Nitrosodimethylamine	62-75-9	28		1.7	0.68	1
12969	Di-n-octylphthalate	117-84-0	40		18	6.1	1
12969	Phenanthrene	85-01-8	31		1.7	0.68	1
12969	Pyrene	129-00-0	32		1.7	0.68	1
Pesticides/PCBs	**SW-846 8081B**		**ug/kg**		**ug/kg**	**ug/kg**	
10590	Aldrin	309-00-2	3.6		0.86	0.18	1
10590	Alpha BHC	319-84-6	3.6		0.86	0.18	1
10590	Beta BHC	319-85-7	4.1		2.0	1.0	1
10590	Gamma BHC - Lindane	58-89-9	4.5		0.86	0.18	1
10590	Chlordane	57-74-9	18	U	18	4.2	1
10590	p,p-DDD	72-54-8	8.9		1.8	0.34	1
10590	p,p-DDE	72-55-9	8.8		1.8	0.34	1
10590	p,p-DDT	50-29-3	9.8		1.8	0.36	1
10590	Delta BHC	319-86-8	4.2		0.86	0.47	1
10590	Dieldrin	60-57-1	7.6		1.8	0.34	1
10590	Endosulfan I	959-98-8	3.2		0.86	0.23	1
10590	Endosulfan II	33213-65-9	7.2		1.8	0.34	1
10590	Endosulfan Sulfate	1031-07-8	7.8		1.8	0.34	1
10590	Endrin	72-20-8	7.8		1.8	0.34	1
10590	Endrin Aldehyde	7421-93-4	6.4		1.8	0.34	1
10590	Endrin Ketone	53494-70-5	7.3		1.9	0.62	1
10590	Heptachlor	76-44-8	3.4		0.86	0.18	1
10590	Heptachlor Epoxide	1024-57-3	3.6		0.86	0.18	1
10590	Methoxychlor	72-43-5	43		7.0	1.8	1
10590	Mirex	2385-85-5	1.8	U	1.8	0.36	1
10590	Toxaphene	8001-35-2	34	U	34	15	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-544-NBZ-SB-0.0-0.5MS Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7312463
LL Group # 1440744
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/12/2013 14:20

Submitted: 12/13/2013 10:30
Reported: 01/08/2014 09:12

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

54400 SDG#: PH148-07MS

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	4.9	J	5.1	2.0	1
12952	EFH (C15-C20)	n.a.	8.9		5.1	2.0	1
12952	EFH (C21-C30)	n.a.	21		5.1	2.0	1
12952	EFH (C30-C40)	n.a.	34		10	4.1	1
12952	EFH (C8-C11)	n.a.	4.3	J	5.1	2.0	1
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	12,000		40.7	7.34	1
06944	Antimony	7440-36-0	33.8		4.07	0.753	1
06935	Arsenic	7440-38-2	18.9		4.07	0.713	1
06946	Barium	7440-39-3	265		1.02	0.0336	1
06947	Beryllium	7440-41-7	5.54		1.02	0.0682	1
07914	Boron	7440-42-8	197		10.2	0.855	1
06949	Cadmium	7440-43-9	5.48		1.02	0.0774	1
01650	Calcium	7440-70-2	2,640		20.4	3.40	1
06951	Chromium	7440-47-3	33.5		3.05	0.163	1
06952	Cobalt	7440-48-4	54.0		1.02	0.101	1
06953	Copper	7440-50-8	27.6		2.04	0.295	1
01654	Iron	7439-89-6	18,200		40.7	3.69	1
06955	Lead	7439-92-1	22.2		3.05	0.509	1
01656	Lithium	7439-93-2	130		4.1	0.35	1
01657	Magnesium	7439-95-4	4,270		10.2	1.70	1
06958	Manganese	7439-96-5	336		1.02	0.0845	1
06960	Molybdenum	7439-98-7	194		2.04	0.173	1
06961	Nickel	7440-02-0	59.7		2.04	0.132	1
10145	Phosphorus	7723-14-0	432		10.2	2.94	1
01662	Potassium	7440-09-7	3,880		102	8.49	1
01667	Sodium	7440-23-5	1,020		102	17.0	1
06969	Tin	7440-31-5	376		10.2	0.224	1
06970	Titanium	7440-32-6	1,200		1.02	0.173	1
06971	Vanadium	7440-62-2	79.3		1.02	0.132	1
06972	Zinc	7440-66-6	102		4.07	0.204	1
10146	Zirconium	7440-67-7	97.0		5.09	0.855	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	2.51		0.407	0.102	2
06142	Silver	7440-22-4	10.6		0.204	0.0265	2
06144	Strontium	7440-24-6	17.8		0.407	0.0692	2
06145	Thallium	7440-28-0	0.695		0.204	0.0305	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.181		0.0166	0.010	1
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11625	14a Moisture Content by 160.3	n.a.	3.7		0.10	0.10	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-544-NBZ-SB-0.0-0.5MS Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7312463
LL Group # 1440744
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/12/2013 14:20

Submitted: 12/13/2013 10:30
Reported: 01/08/2014 09:12

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

54400 SDG#: PH148-07MS

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	19.7		1.01	0.118	1
11031	12378-PeCDD	40321-76-4	99.6		5.04	0.0771	1
11031	123478-HxCDD	39227-28-6	102		5.04	0.0640	1
11031	123678-HxCDD	57653-85-7	102	B	5.04	0.0668	1
11031	123789-HxCDD	19408-74-3	101		5.04	0.0610	1
11031	1234678-HpCDD	35822-46-9	103	B	5.04	0.0625	1
11031	OCDD	3268-87-9	225	B	10.1	0.0468	1
11031	2378-TCDF	51207-31-9	20.3		1.01	0.103	1
11031	12378-PeCDF	57117-41-6	99.1	B	5.04	0.0534	1
11031	23478-PeCDF	57117-31-4	102	B	5.04	0.0495	1
11031	123478-HxCDF	70648-26-9	106	B	5.04	0.0583	1
11031	123678-HxCDF	57117-44-9	108		5.04	0.0535	1
11031	123789-HxCDF	72918-21-9	106	B	5.04	0.0619	1
11031	234678-HxCDF	60851-34-5	109	B	5.04	0.0555	1
11031	1234678-HpCDF	67562-39-4	107	B	5.04	0.0452	1
11031	1234789-HpCDF	55673-89-7	108	B	5.04	0.0626	1
11031	OCDF	39001-02-0	216	B	10.1	0.0631	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	61	25 - 164
13C12-12378-PeCDD	70	25 - 181
13C12-123478-HxCDD	78	32 - 141
13C12-123678-HxCDD	79	28 - 130
13C12-123789-HxCDD	80	28 - 130
13C12-1234678-HpCDD	82	23 - 140
13C12-OCDD	85	17 - 157
13C12-2378-TCDF	56	24 - 169
13C12-12378-PeCDF	68	24 - 185
13C12-23478-PeCDF	67	21 - 178
13C12-123478-HxCDF	73	26 - 152
13C12-123678-HxCDF	79	26 - 123
13C12-234678-HxCDF	75	28 - 136
13C12-123789-HxCDF	75	29 - 147
13C12-1234678-HpCDF	92	28 - 143
13C12-1234789-HpCDF	74	26 - 138
13C12-OCDF	76	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present
S Saturation of detection signal

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-544-NBZ-SB-0.0-0.5MS Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7312463
LL Group # 1440744
Account # 13013

Project Name: SSFL Phase 3 Sampling

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3201 Jermantown Road
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54400 SDG#: PH148-07MS

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13354SLB026	01/02/2014	07:48	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	13354SLB026	12/23/2013	06:30	Olivia Arosemena	1
10590	20a Pesticides by EPA 8081B	SW-846 8081B	1	133520007A	12/23/2013	16:33	Jamie L Brillhart	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	133520007A	12/18/2013	18:35	Sally L Appleyard	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	133530025A	12/23/2013	14:09	Tracy A Cole	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	133530025A	12/20/2013	09:15	Katheryne V Sponheimer	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13353005	12/24/2013	04:25	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13353005	12/19/2013	11:30	Chin F Ly	1
01643	Aluminum	SW-846 6010C	1	133540637001	12/27/2013	03:41	Tara L Snyder	1
06944	Antimony	SW-846 6010C	1	133540637001	12/27/2013	03:41	Tara L Snyder	1
06935	Arsenic	SW-846 6010C	1	133540637001	12/27/2013	03:41	Tara L Snyder	1
06946	Barium	SW-846 6010C	1	133540637001	12/27/2013	03:41	Tara L Snyder	1
06947	Beryllium	SW-846 6010C	1	133540637001	12/27/2013	03:41	Tara L Snyder	1
07914	Boron	SW-846 6010C	1	133540637001	12/27/2013	03:41	Tara L Snyder	1
06949	Cadmium	SW-846 6010C	1	133540637001	12/27/2013	03:41	Tara L Snyder	1
01650	Calcium	SW-846 6010C	1	133540637001	12/27/2013	03:41	Tara L Snyder	1
06951	Chromium	SW-846 6010C	1	133540637001	12/27/2013	03:41	Tara L Snyder	1
06952	Cobalt	SW-846 6010C	1	133540637001	12/27/2013	03:41	Tara L Snyder	1
06953	Copper	SW-846 6010C	1	133540637001	12/27/2013	03:41	Tara L Snyder	1
01654	Iron	SW-846 6010C	1	133540637001	12/27/2013	03:41	Tara L Snyder	1
06955	Lead	SW-846 6010C	1	133540637001	12/27/2013	11:04	Joanne M Gates	1
01656	Lithium	SW-846 6010C	1	133540637001	12/26/2013	10:46	John W Yanzuk II	1
01657	Magnesium	SW-846 6010C	1	133540637001	12/27/2013	03:41	Tara L Snyder	1
06958	Manganese	SW-846 6010C	1	133540637001	12/27/2013	03:41	Tara L Snyder	1
06960	Molybdenum	SW-846 6010C	1	133540637001	12/26/2013	10:46	John W Yanzuk II	1
06961	Nickel	SW-846 6010C	1	133540637001	12/27/2013	03:41	Tara L Snyder	1
10145	Phosphorus	SW-846 6010C	1	133540637001	12/27/2013	03:41	Tara L Snyder	1
01662	Potassium	SW-846 6010C	1	133540637001	12/27/2013	03:41	Tara L Snyder	1
01667	Sodium	SW-846 6010C	1	133540637001	12/26/2013	10:46	John W Yanzuk II	1
06969	Tin	SW-846 6010C	1	133540637001	12/27/2013	03:41	Tara L Snyder	1
06970	Titanium	SW-846 6010C	1	133540637001	12/27/2013	03:41	Tara L Snyder	1
06971	Vanadium	SW-846 6010C	1	133540637001	12/27/2013	03:41	Tara L Snyder	1
06972	Zinc	SW-846 6010C	1	133540637001	12/27/2013	03:41	Tara L Snyder	1
10146	Zirconium	SW-846 6010C	1	133540637001	12/26/2013	10:46	John W Yanzuk II	1
06141	Selenium	SW-846 6020A	1	133540637001B	01/04/2014	00:21	John P Hook	2
06142	Silver	SW-846 6020A	1	133540637001A	01/07/2014	21:14	John P Hook	2
06144	Strontium	SW-846 6020A	1	133540637001A	01/04/2014	00:21	John P Hook	2

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-544-NBZ-SB-0.0-0.5MS Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7312463
LL Group # 1440744
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/12/2013 14:20

Submitted: 12/13/2013 10:30
Reported: 01/08/2014 09:12

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

54400 SDG#: PH148-07MS

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06145	Thallium	SW-846 6020A	1	133540637001A	01/04/2014 00:21	John P Hook	2
00159	3a Mercury 7471A	SW-846 7471B	1	133540638001	12/23/2013 10:00	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	133540637001	12/22/2013 08:29	James L Mertz	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	133540638001	12/22/2013 10:33	James L Mertz	1
11625	14a Moisture Content by 160.3	EPA 160.3 modified	1	13352162401C	12/18/2013 21:53	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-544-NBZ-SB-0.0-0.5MSD Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7312464
LL Group # 1440744
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/12/2013 14:20

Submitted: 12/13/2013 10:30
Reported: 01/08/2014 09:12

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

54400 SDG#: PH148-07MSD

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	27		1.7	0.68	1
12969	Acenaphthylene	208-96-8	27		1.7	0.34	1
12969	Anthracene	120-12-7	28		1.7	0.34	1
12969	Benzo(a)anthracene	56-55-3	31		1.7	0.68	1
12969	Benzo(a)pyrene	50-32-8	30		1.7	0.68	1
12969	Benzo(b)fluoranthene	205-99-2	34		1.7	0.68	1
12969	Benzo(e)pyrene	192-97-2	29		17	3.4	1
12969	Benzo(g,h,i)perylene	191-24-2	18		1.7	0.68	1
12969	Benzo(k)fluoranthene	207-08-9	34		1.7	0.68	1
12969	Butylbenzylphthalate	85-68-7	31		18	6.1	1
12969	Di-n-butylphthalate	84-74-2	28		18	6.1	1
12969	Chrysene	218-01-9	32		1.7	0.34	1
12969	Dibenz(a,h)anthracene	53-70-3	20		1.7	0.68	1
12969	Diethylphthalate	84-66-2	30		18	6.1	1
12969	Dimethylphthalate	131-11-3	30		18	6.1	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	31		18	6.1	1
12969	Fluoranthene	206-44-0	30		1.7	0.68	1
12969	Fluorene	86-73-7	29		1.7	0.68	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	21		1.7	0.68	1
12969	1-Methylnaphthalene	90-12-0	32		1.7	0.68	1
12969	2-Methylnaphthalene	91-57-6	32		1.7	0.68	1
12969	Naphthalene	91-20-3	29		1.7	0.68	1
12969	N-Nitrosodimethylamine	62-75-9	26		1.7	0.68	1
12969	Di-n-octylphthalate	117-84-0	38		18	6.1	1
12969	Phenanthrene	85-01-8	29		1.7	0.68	1
12969	Pyrene	129-00-0	31		1.7	0.68	1
Pesticides/PCBs	**SW-846 8081B**		**ug/kg**		**ug/kg**	**ug/kg**	
10590	Aldrin	309-00-2	3.7		0.86	0.18	1
10590	Alpha BHC	319-84-6	3.7		0.86	0.18	1
10590	Beta BHC	319-85-7	4.1		2.0	1.0	1
10590	Gamma BHC - Lindane	58-89-9	4.5		0.86	0.18	1
10590	Chlordane	57-74-9	18	U	18	4.2	1
10590	p,p-DDD	72-54-8	8.9		1.8	0.34	1
10590	p,p-DDE	72-55-9	8.7		1.8	0.34	1
10590	p,p-DDT	50-29-3	9.3		1.8	0.36	1
10590	Delta BHC	319-86-8	4.0		0.86	0.47	1
10590	Dieldrin	60-57-1	7.8		1.8	0.34	1
10590	Endosulfan I	959-98-8	3.4		0.86	0.23	1
10590	Endosulfan II	33213-65-9	7.5		1.8	0.34	1
10590	Endosulfan Sulfate	1031-07-8	7.7		1.8	0.34	1
10590	Endrin	72-20-8	7.8		1.8	0.34	1
10590	Endrin Aldehyde	7421-93-4	7.1		1.8	0.34	1
10590	Endrin Ketone	53494-70-5	7.3		1.9	0.62	1
10590	Heptachlor	76-44-8	3.5		0.86	0.18	1
10590	Heptachlor Epoxide	1024-57-3	3.7		0.86	0.18	1
10590	Methoxychlor	72-43-5	43		7.0	1.8	1
10590	Mirex	2385-85-5	1.8	U	1.8	0.36	1
10590	Toxaphene	8001-35-2	34	U	34	15	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-544-NBZ-SB-0.0-0.5MSD Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7312464
LL Group # 1440744
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/12/2013 14:20

Submitted: 12/13/2013 10:30
Reported: 01/08/2014 09:12

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

54400 SDG#: PH148-07MSD

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	4.8	J	5.2	2.1	1
12952	EFH (C15-C20)	n.a.	8.8		5.2	2.1	1
12952	EFH (C21-C30)	n.a.	26		5.2	2.1	1
12952	EFH (C30-C40)	n.a.	41		10	4.2	1
12952	EFH (C8-C11)	n.a.	4.3	J	5.2	2.1	1
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	12,400		40.7	7.34	1
06944	Antimony	7440-36-0	28.8		4.07	0.753	1
06935	Arsenic	7440-38-2	19.4		4.07	0.713	1
06946	Barium	7440-39-3	282		1.02	0.0336	1
06947	Beryllium	7440-41-7	5.43		1.02	0.0682	1
07914	Boron	7440-42-8	191		10.2	0.855	1
06949	Cadmium	7440-43-9	5.59		1.02	0.0774	1
01650	Calcium	7440-70-2	2,490		20.4	3.40	1
06951	Chromium	7440-47-3	34.4		3.05	0.163	1
06952	Cobalt	7440-48-4	54.5		1.02	0.101	1
06953	Copper	7440-50-8	27.4		2.04	0.295	1
01654	Iron	7439-89-6	19,100		40.7	3.69	1
06955	Lead	7439-92-1	21.8		3.05	0.509	1
01656	Lithium	7439-93-2	131		4.1	0.35	1
01657	Magnesium	7439-95-4	4,530		10.2	1.70	1
06958	Manganese	7439-96-5	326		1.02	0.0845	1
06960	Molybdenum	7439-98-7	193		2.04	0.173	1
06961	Nickel	7440-02-0	60.7		2.04	0.132	1
10145	Phosphorus	7723-14-0	433		10.2	2.94	1
01662	Potassium	7440-09-7	4,050		102	8.49	1
01667	Sodium	7440-23-5	1,020		102	17.0	1
06969	Tin	7440-31-5	376		10.2	0.224	1
06970	Titanium	7440-32-6	1,200		1.02	0.173	1
06971	Vanadium	7440-62-2	79.6		1.02	0.132	1
06972	Zinc	7440-66-6	107		4.07	0.204	1
10146	Zirconium	7440-67-7	97.8		5.09	0.855	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	2.55		0.407	0.102	2
06142	Silver	7440-22-4	11.1		0.204	0.0265	2
06144	Strontium	7440-24-6	17.7		0.407	0.0692	2
06145	Thallium	7440-28-0	0.704		0.204	0.0305	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.178		0.0169	0.0101	1
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11625	14a Moisture Content by 160.3	n.a.	3.7		0.10	0.10	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-544-NBZ-SB-0.0-0.5MSD Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7312464
LL Group # 1440744
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/12/2013 14:20

Submitted: 12/13/2013 10:30
Reported: 01/08/2014 09:12

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

54400 SDG#: PH148-07MSD

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	19.0		0.998	0.0806	1
11031	12378-PeCDD	40321-76-4	99.5		4.99	0.0537	1
11031	123478-HxCDD	39227-28-6	100		4.99	0.0432	1
11031	123678-HxCDD	57653-85-7	102	B	4.99	0.0448	1
11031	123789-HxCDD	19408-74-3	99.1		4.99	0.0415	1
11031	1234678-HpCDD	35822-46-9	101	B	4.99	0.0451	1
11031	OCDD	3268-87-9	211	B	9.98	0.0330	1
11031	2378-TCDF	51207-31-9	20.0		0.998	0.0755	1
11031	12378-PeCDF	57117-41-6	98.6	B	4.99	0.0382	1
11031	23478-PeCDF	57117-31-4	100	B	4.99	0.0382	1
11031	123478-HxCDF	70648-26-9	101	B	4.99	0.0389	1
11031	123678-HxCDF	57117-44-9	103		4.99	0.0350	1
11031	123789-HxCDF	72918-21-9	102	B	4.99	0.0427	1
11031	234678-HxCDF	60851-34-5	104	B	4.99	0.0368	1
11031	1234678-HpCDF	67562-39-4	103	B	4.99	0.0347	1
11031	1234789-HpCDF	55673-89-7	104	B	4.99	0.0501	1
11031	OCDF	39001-02-0	203	B	9.98	0.0475	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	54	25 - 164
13C12-12378-PeCDD	64	25 - 181
13C12-123478-HxCDD	75	32 - 141
13C12-123678-HxCDD	74	28 - 130
13C12-123789-HxCDD	74	28 - 130
13C12-1234678-HpCDD	77	23 - 140
13C12-OCDD	80	17 - 157
13C12-2378-TCDF	51	24 - 169
13C12-12378-PeCDF	64	24 - 185
13C12-23478-PeCDF	61	21 - 178
13C12-123478-HxCDF	68	26 - 152
13C12-123678-HxCDF	74	26 - 123
13C12-234678-HxCDF	69	28 - 136
13C12-123789-HxCDF	68	29 - 147
13C12-1234678-HpCDF	88	28 - 143
13C12-1234789-HpCDF	67	26 - 138
13C12-OCDF	69	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present
S Saturation of detection signal

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-544-NBZ-SB-0.0-0.5MSD Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7312464
LL Group # 1440744
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/12/2013 14:20

Submitted: 12/13/2013 10:30
Reported: 01/08/2014 09:12

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

54400 SDG#: PH148-07MSD

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13354SLB026	01/02/2014	08:21	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	13354SLB026	12/23/2013	06:30	Olivia Arosemena	1
10590	20a Pesticides by EPA 8081B	SW-846 8081B	1	133520007A	12/23/2013	16:48	Jamie L Brillhart	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	133520007A	12/18/2013	18:35	Sally L Appleyard	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	133530025A	12/23/2013	14:30	Tracy A Cole	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	133530025A	12/20/2013	09:15	Katheryne V Sponheimer	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13353005	12/24/2013	05:22	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13353005	12/19/2013	11:30	Chin F Ly	1
01643	Aluminum	SW-846 6010C	1	133540637001	12/27/2013	03:44	Tara L Snyder	1
06944	Antimony	SW-846 6010C	1	133540637001	12/27/2013	03:44	Tara L Snyder	1
06935	Arsenic	SW-846 6010C	1	133540637001	12/27/2013	03:44	Tara L Snyder	1
06946	Barium	SW-846 6010C	1	133540637001	12/27/2013	03:44	Tara L Snyder	1
06947	Beryllium	SW-846 6010C	1	133540637001	12/27/2013	03:44	Tara L Snyder	1
07914	Boron	SW-846 6010C	1	133540637001	12/27/2013	03:44	Tara L Snyder	1
06949	Cadmium	SW-846 6010C	1	133540637001	12/27/2013	03:44	Tara L Snyder	1
01650	Calcium	SW-846 6010C	1	133540637001	12/27/2013	03:44	Tara L Snyder	1
06951	Chromium	SW-846 6010C	1	133540637001	12/27/2013	03:44	Tara L Snyder	1
06952	Cobalt	SW-846 6010C	1	133540637001	12/27/2013	03:44	Tara L Snyder	1
06953	Copper	SW-846 6010C	1	133540637001	12/27/2013	03:44	Tara L Snyder	1
01654	Iron	SW-846 6010C	1	133540637001	12/27/2013	03:44	Tara L Snyder	1
06955	Lead	SW-846 6010C	1	133540637001	12/27/2013	11:08	Joanne M Gates	1
01656	Lithium	SW-846 6010C	1	133540637001	12/26/2013	10:49	John W Yanzuk II	1
01657	Magnesium	SW-846 6010C	1	133540637001	12/27/2013	03:44	Tara L Snyder	1
06958	Manganese	SW-846 6010C	1	133540637001	12/27/2013	03:44	Tara L Snyder	1
06960	Molybdenum	SW-846 6010C	1	133540637001	12/26/2013	10:49	John W Yanzuk II	1
06961	Nickel	SW-846 6010C	1	133540637001	12/27/2013	03:44	Tara L Snyder	1
10145	Phosphorus	SW-846 6010C	1	133540637001	12/27/2013	03:44	Tara L Snyder	1
01662	Potassium	SW-846 6010C	1	133540637001	12/27/2013	03:44	Tara L Snyder	1
01667	Sodium	SW-846 6010C	1	133540637001	12/26/2013	10:49	John W Yanzuk II	1
06969	Tin	SW-846 6010C	1	133540637001	12/27/2013	03:44	Tara L Snyder	1
06970	Titanium	SW-846 6010C	1	133540637001	12/27/2013	03:44	Tara L Snyder	1
06971	Vanadium	SW-846 6010C	1	133540637001	12/27/2013	03:44	Tara L Snyder	1
06972	Zinc	SW-846 6010C	1	133540637001	12/27/2013	03:44	Tara L Snyder	1
10146	Zirconium	SW-846 6010C	1	133540637001	12/26/2013	10:49	John W Yanzuk II	1
06141	Selenium	SW-846 6020A	1	133540637001B	01/04/2014	00:24	John P Hook	2
06142	Silver	SW-846 6020A	1	133540637001A	01/07/2014	21:16	John P Hook	2
06144	Strontium	SW-846 6020A	1	133540637001A	01/07/2014	21:16	John P Hook	2

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-544-NBZ-SB-0.0-0.5MSD Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7312464
LL Group # 1440744
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/12/2013 14:20

Submitted: 12/13/2013 10:30
Reported: 01/08/2014 09:12

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

54400 SDG#: PH148-07MSD

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06145	Thallium	SW-846 6020A	1	133540637001A	01/04/2014 00:24	John P Hook	2
00159	3a Mercury 7471A	SW-846 7471B	1	133540638001	12/23/2013 10:02	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	133540637001	12/22/2013 08:29	James L Mertz	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	133540638001	12/22/2013 10:33	James L Mertz	1
11625	14a Moisture Content by 160.3	EPA 160.3 modified	1	13352162401C	12/18/2013 21:53	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-544-NBZ-SB-0.0-0.5DUP Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7312465
LL Group # 1440744
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/12/2013 14:20

Submitted: 12/13/2013 10:30
Reported: 01/08/2014 09:12

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

54400 SDG#: PH148-07DUP

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	9,980		40.7	7.34	1
06944	Antimony	7440-36-0	4.07	U	4.07	0.753	1
06935	Arsenic	7440-38-2	2.46	J	4.07	0.713	1
06946	Barium	7440-39-3	64.8		1.02	0.0336	1
06947	Beryllium	7440-41-7	0.369	J	1.02	0.0682	1
07914	Boron	7440-42-8	7.68	J	10.2	0.855	1
06949	Cadmium	7440-43-9	0.494	J	1.02	0.0774	1
01650	Calcium	7440-70-2	2,110		20.4	3.40	1
06951	Chromium	7440-47-3	13.7		3.05	0.163	1
06952	Cobalt	7440-48-4	4.58		1.02	0.101	1
06953	Copper	7440-50-8	3.48		2.04	0.295	1
01654	Iron	7439-89-6	18,100		40.7	3.69	1
06955	Lead	7439-92-1	7.11		3.05	0.509	1
01656	Lithium	7439-93-2	28.3		4.1	0.35	1
01657	Magnesium	7439-95-4	4,020		10.2	1.70	1
06958	Manganese	7439-96-5	287		1.02	0.0845	1
06960	Molybdenum	7439-98-7	0.217	J	2.04	0.173	1
06961	Nickel	7440-02-0	8.46		2.04	0.132	1
10145	Phosphorus	7723-14-0	339		10.2	2.94	1
01662	Potassium	7440-09-7	2,980		102	8.49	1
01667	Sodium	7440-23-5	58.7	J	102	17.0	1
06969	Tin	7440-31-5	2.40	J	10.2	0.224	1
06970	Titanium	7440-32-6	970		1.02	0.173	1
06971	Vanadium	7440-62-2	27.6		1.02	0.132	1
06972	Zinc	7440-66-6	54.7		4.07	0.204	1
10146	Zirconium	7440-67-7	1.09	J	5.09	0.855	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.279	J	0.407	0.102	2
06142	Silver	7440-22-4	0.0514	J	0.204	0.0265	2
06144	Strontium	7440-24-6	9.79		0.407	0.0692	2
06145	Thallium	7440-28-0	0.270		0.204	0.0305	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0167	U	0.0167	0.0100	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045D	n.a.	6.45		0.0100	0.0100	1
	The pH was measured in water at 18.8 C.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11625	14a Moisture Content by 160.3	n.a.	3.7		0.10	0.10	1
11626	14a Moisture Content by 160.3	n.a.	3.8		0.10	0.10	1
	The duplicate moisture value is provided to assess the precision of the moisture test. For comparability purposes, the initial moisture determination is the value used to perform dry weight calculations.						

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-544-NBZ-SB-0.0-0.5DUP Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7312465
LL Group # 1440744
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/12/2013 14:20

Submitted: 12/13/2013 10:30
Reported: 01/08/2014 09:12

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

54400 SDG#: PH148-07DUP

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01643	Aluminum	SW-846 6010C	1	133540637001	12/27/2013 03:37	Tara L Snyder	1
06944	Antimony	SW-846 6010C	1	133540637001	12/27/2013 03:37	Tara L Snyder	1
06935	Arsenic	SW-846 6010C	1	133540637001	12/27/2013 03:37	Tara L Snyder	1
06946	Barium	SW-846 6010C	1	133540637001	12/27/2013 03:37	Tara L Snyder	1
06947	Beryllium	SW-846 6010C	1	133540637001	12/27/2013 03:37	Tara L Snyder	1
07914	Boron	SW-846 6010C	1	133540637001	12/27/2013 03:37	Tara L Snyder	1
06949	Cadmium	SW-846 6010C	1	133540637001	12/27/2013 03:37	Tara L Snyder	1
01650	Calcium	SW-846 6010C	1	133540637001	12/27/2013 03:37	Tara L Snyder	1
06951	Chromium	SW-846 6010C	1	133540637001	12/27/2013 03:37	Tara L Snyder	1
06952	Cobalt	SW-846 6010C	1	133540637001	12/27/2013 03:37	Tara L Snyder	1
06953	Copper	SW-846 6010C	1	133540637001	12/27/2013 03:37	Tara L Snyder	1
01654	Iron	SW-846 6010C	1	133540637001	12/27/2013 03:37	Tara L Snyder	1
06955	Lead	SW-846 6010C	1	133540637001	12/27/2013 11:00	Joanne M Gates	1
01656	Lithium	SW-846 6010C	1	133540637001	12/26/2013 10:42	John W Yanzuk II	1
01657	Magnesium	SW-846 6010C	1	133540637001	12/27/2013 03:37	Tara L Snyder	1
06958	Manganese	SW-846 6010C	1	133540637001	12/27/2013 03:37	Tara L Snyder	1
06960	Molybdenum	SW-846 6010C	1	133540637001	12/26/2013 10:42	John W Yanzuk II	1
06961	Nickel	SW-846 6010C	1	133540637001	12/27/2013 03:37	Tara L Snyder	1
10145	Phosphorus	SW-846 6010C	1	133540637001	12/27/2013 03:37	Tara L Snyder	1
01662	Potassium	SW-846 6010C	1	133540637001	12/27/2013 03:37	Tara L Snyder	1
01667	Sodium	SW-846 6010C	1	133540637001	12/26/2013 10:42	John W Yanzuk II	1
06969	Tin	SW-846 6010C	1	133540637001	12/27/2013 03:37	Tara L Snyder	1
06970	Titanium	SW-846 6010C	1	133540637001	12/27/2013 03:37	Tara L Snyder	1
06971	Vanadium	SW-846 6010C	1	133540637001	12/27/2013 03:37	Tara L Snyder	1
06972	Zinc	SW-846 6010C	1	133540637001	12/27/2013 03:37	Tara L Snyder	1
10146	Zirconium	SW-846 6010C	1	133540637001	12/26/2013 10:42	John W Yanzuk II	1
06141	Selenium	SW-846 6020A	1	133540637001B	01/04/2014 00:19	John P Hook	2
06142	Silver	SW-846 6020A	1	133540637001A	01/04/2014 00:19	John P Hook	2
06144	Strontium	SW-846 6020A	1	133540637001A	01/04/2014 00:19	John P Hook	2
06145	Thallium	SW-846 6020A	1	133540637001A	01/04/2014 00:19	John P Hook	2
00159	3a Mercury 7471A	SW-846 7471B	1	133540638001	12/23/2013 09:58	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	133540637001	12/22/2013 08:29	James L Mertz	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	133540638001	12/22/2013 10:33	James L Mertz	1
00394	15a pH by 9045D	SW-846 9045D modified	1	13347039401A	12/13/2013 17:00	Carolyn M Mastropietro	1
11625	14a Moisture Content by 160.3	EPA 160.3 modified	1	13352162401C	12/18/2013 21:53	Scott W Freisher	1
11626	14a Moisture Content by 160.3	EPA 160.3 modified	1	13352162401C	12/18/2013 21:53	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-844-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7312466
LL Group # 1440744
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/12/2013 14:40

Submitted: 12/13/2013 10:30
Reported: 01/08/2014 09:12

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

84400 SDG#: PH148-08*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.67	1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.34	1
12969	Anthracene	120-12-7	1.7	U	1.7	0.34	1
12969	Benzo(a)anthracene	56-55-3	1.7	U	1.7	0.67	1
12969	Benzo(a)pyrene	50-32-8	1.7	U	1.7	0.67	1
12969	Benzo(b)fluoranthene	205-99-2	0.73	J	1.7	0.67	1
12969	Benzo(e)pyrene	192-97-2	17	U	17	3.3	1
12969	Benzo(g,h,i)perylene	191-24-2	1.7	U	1.7	0.67	1
12969	Benzo(k)fluoranthene	207-08-9	1.7	U	1.7	0.67	1
12969	Butylbenzylphthalate	85-68-7	18	U	18	6.0	1
12969	Di-n-butylphthalate	84-74-2	18	U	18	6.0	1
12969	Chrysene	218-01-9	0.81	J	1.7	0.34	1
12969	Dibenz(a,h)anthracene	53-70-3	1.7	U	1.7	0.67	1
12969	Diethylphthalate	84-66-2	18	U	18	6.0	1
12969	Dimethylphthalate	131-11-3	18	U	18	6.0	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	18	U	18	6.0	1
12969	Fluoranthene	206-44-0	1.7	U	1.7	0.67	1
12969	Fluorene	86-73-7	1.7	U	1.7	0.67	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.7	U	1.7	0.67	1
12969	1-Methylnaphthalene	90-12-0	1.7	U	1.7	0.67	1
12969	2-Methylnaphthalene	91-57-6	1.7	U	1.7	0.67	1
12969	Naphthalene	91-20-3	1.1	J	1.7	0.67	1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.67	1
12969	Di-n-octylphthalate	117-84-0	18	U	18	6.0	1
12969	Phenanthrene	85-01-8	0.80	J	1.7	0.67	1
12969	Pyrene	129-00-0	0.67	J	1.7	0.67	1
Pesticides/PCBs	**SW-846 8081B**		**ug/kg**		**ug/kg**	**ug/kg**	
10590	Aldrin	309-00-2	0.85	U	0.85	0.17	1
10590	Alpha BHC	319-84-6	0.85	U	0.85	0.17	1
10590	Beta BHC	319-85-7	1.9	U	1.9	0.98	1
10590	Gamma BHC - Lindane	58-89-9	0.85	U	0.85	0.17	1
10590	Chlordane	57-74-9	17	U	17	4.1	1
10590	p,p-DDD	72-54-8	1.7	U	1.7	0.34	1
10590	p,p-DDE	72-55-9	0.40	J	1.7	0.34	1
10590	p,p-DDT	50-29-3	0.49	J	1.7	0.36	1
10590	Delta BHC	319-86-8	0.85	U	0.85	0.46	1
10590	Dieldrin	60-57-1	1.7	U	1.7	0.34	1
10590	Endosulfan I	959-98-8	0.85	U	0.85	0.22	1
10590	Endosulfan II	33213-65-9	1.7	U	1.7	0.34	1
10590	Endosulfan Sulfate	1031-07-8	1.7	U	1.7	0.34	1
10590	Endrin	72-20-8	1.7	U	1.7	0.34	1
10590	Endrin Aldehyde	7421-93-4	1.7	U	1.7	0.34	1
10590	Endrin Ketone	53494-70-5	1.8	U	1.8	0.61	1
10590	Heptachlor	76-44-8	0.85	U	0.85	0.17	1
10590	Heptachlor Epoxide	1024-57-3	0.85	U	0.85	0.17	1
10590	Methoxychlor	72-43-5	6.9	U	6.9	1.7	1
10590	Mirex	2385-85-5	1.7	U	1.7	0.36	1
10590	Toxaphene	8001-35-2	34	U	34	14	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-844-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7312466
LL Group # 1440744
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/12/2013 14:40

Submitted: 12/13/2013 10:30
Reported: 01/08/2014 09:12

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

84400 SDG#: PH148-08*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.1	U	5.1	2.0	1
12952	EFH (C15-C20)	n.a.	5.1	U	5.1	2.0	1
12952	EFH (C21-C30)	n.a.	6.8		5.1	2.0	1
12952	EFH (C30-C40)	n.a.	20		10	4.1	1
12952	EFH (C8-C11)	n.a.	5.1	U	5.1	2.0	1
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	9,880		39.7	7.16	1
06944	Antimony	7440-36-0	1.22	J	3.97	0.735	1
06935	Arsenic	7440-38-2	3.75	J	3.97	0.695	1
06946	Barium	7440-39-3	63.9		0.993	0.0328	1
06947	Beryllium	7440-41-7	0.382	J	0.993	0.0665	1
07914	Boron	7440-42-8	4.20	J	9.93	0.834	1
06949	Cadmium	7440-43-9	0.993	U	0.993	0.0754	1
01650	Calcium	7440-70-2	2,070		19.9	3.32	1
06951	Chromium	7440-47-3	13.5		2.98	0.159	1
06952	Cobalt	7440-48-4	4.20		0.993	0.0983	1
06953	Copper	7440-50-8	6.43		1.99	0.288	1
01654	Iron	7439-89-6	17,800		39.7	3.59	1
06955	Lead	7439-92-1	8.44		2.98	0.496	1
01656	Lithium	7439-93-2	26.1		4.0	0.34	1
01657	Magnesium	7439-95-4	3,960		9.93	1.66	1
06958	Manganese	7439-96-5	273		0.993	0.0824	1
06960	Molybdenum	7439-98-7	0.287	J	1.99	0.169	1
06961	Nickel	7440-02-0	7.68		1.99	0.129	1
10145	Phosphorus	7723-14-0	321		9.93	2.87	1
01662	Potassium	7440-09-7	2,820		99.3	8.28	1
01667	Sodium	7440-23-5	57.6	J	99.3	16.6	1
06969	Tin	7440-31-5	2.76	J	9.93	0.218	1
06970	Titanium	7440-32-6	959		0.993	0.169	1
06971	Vanadium	7440-62-2	28.4		0.993	0.129	1
06972	Zinc	7440-66-6	53.6		3.97	0.199	1
10146	Zirconium	7440-67-7	4.96	U	4.96	0.834	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.459		0.397	0.0993	2
06142	Silver	7440-22-4	0.0450	J	0.199	0.0258	2
06144	Strontium	7440-24-6	10.2		0.397	0.0675	2
06145	Thallium	7440-28-0	0.233		0.199	0.0298	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0096	J	0.0158	0.0095	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045D	n.a.	6.41		0.0100	0.0100	1
	The pH was measured in water at 18 C.						

*=This limit was used in the evaluation of the final result

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Lancaster Laboratories Environmental
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Analysis Report

Sample Description: SL-844-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7312466
LL Group # 1440744
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/12/2013 14:40

Submitted: 12/13/2013 10:30
Reported: 01/08/2014 09:12

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

84400 SDG#: PH148-08*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Wet Chemistry	**EPA 160.3 modified**		%	%	%	
11624	14a Moisture Content by 160.3	n.a.	2.2	0.10	0.10	1

Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-844-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7312466
LL Group # 1440744
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/12/2013 14:40

Submitted: 12/13/2013 10:30
Reported: 01/08/2014 09:12

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

84400 SDG#: PH148-08*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.110	JQ	0.992	0.0966	1
11031	12378-PeCDD	40321-76-4	0.328	JQ	4.96	0.0531	1
11031	123478-HxCDD	39227-28-6	0.157	JQ	4.96	0.0355	1
11031	123678-HxCDD	57653-85-7	0.391	JB	4.96	0.0378	1
11031	123789-HxCDD	19408-74-3	0.472	JQ	4.96	0.0356	1
11031	1234678-HpCDD	35822-46-9	3.20	JB	4.96	0.0390	1
11031	OCDD	3268-87-9	26.9	B	9.92	0.0338	1
11031	2378-TCDF	51207-31-9	0.202	JQ	0.992	0.0805	1
11031	12378-PeCDF	57117-41-6	0.288	JBQ	4.96	0.0354	1
11031	23478-PeCDF	57117-31-4	0.395	JBQ	4.96	0.0331	1
11031	123478-HxCDF	70648-26-9	0.198	JB	4.96	0.0334	1
11031	123678-HxCDF	57117-44-9	0.220	J	4.96	0.0305	1
11031	123789-HxCDF	72918-21-9	0.258	JBQ	4.96	0.0364	1
11031	234678-HxCDF	60851-34-5	0.301	JB	4.96	0.0318	1
11031	1234678-HpCDF	67562-39-4	0.851	JB	4.96	0.0239	1
11031	1234789-HpCDF	55673-89-7	0.272	JBQ	4.96	0.0390	1
11031	OCDF	39001-02-0	2.03	JB	9.92	0.0524	1
D/F Toxic Equivalents	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.160				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	54	25 - 164
13C12-12378-PeCDD	67	25 - 181
13C12-123478-HxCDD	73	32 - 141
13C12-123678-HxCDD	75	28 - 130
13C12-123789-HxCDD	72	28 - 130
13C12-1234678-HpCDD	76	23 - 140
13C12-OCDD	77	17 - 157
13C12-2378-TCDF	50	24 - 169
13C12-12378-PeCDF	65	24 - 185
13C12-23478-PeCDF	62	21 - 178
13C12-123478-HxCDF	67	26 - 152
13C12-123678-HxCDF	74	26 - 123
13C12-234678-HxCDF	68	28 - 136
13C12-123789-HxCDF	66	29 - 147
13C12-1234678-HpCDF	92	28 - 143
13C12-1234789-HpCDF	64	26 - 138
13C12-OCDF	63	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column

*=This limit was used in the evaluation of the final result

eurofins
Lancaster Laboratories
Environmental

Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: SL-844-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7312466
LL Group # 1440744
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/12/2013 14:40

Submitted: 12/13/2013 10:30
Reported: 01/08/2014 09:12

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

84400 SDG#: PH148-08*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

Q EMPC - Estimated Maximum Possible Concentration
F Interference is present
S Saturation of detection signal

*=This limit was used in the evaluation of the final result

eurofins
Lancaster Laboratories Environmental
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Analysis Report

Sample Description: SL-844-NBZ-SB-0.0-0.5 Soil
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3201 Jermantown Road
Suite 400
Fairfax VA 22030

84400 SDG#: PH148-08*

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13354SLB026	01/02/2014	08:54	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	13354SLB026	12/23/2013	06:30	Olivia Arosemena	1
10590	20a Pesticides by EPA 8081B	SW-846 8081B	1	133520007A	12/23/2013	17:03	Jamie L Brillhart	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	133520007A	12/18/2013	18:35	Sally L Appleyard	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	133530025A	12/23/2013	16:38	Tracy A Cole	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	133530025A	12/20/2013	09:15	Katheryne V Sponheimer	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13353005	12/24/2013	06:18	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13353005	12/19/2013	11:30	Chin F Ly	1
01643	Aluminum	SW-846 6010C	1	133540637001	12/27/2013	03:52	Tara L Snyder	1
06944	Antimony	SW-846 6010C	1	133540637001	12/26/2013	10:57	John W Yanzuk II	1
06935	Arsenic	SW-846 6010C	1	133540637001	12/26/2013	10:57	John W Yanzuk II	1
06946	Barium	SW-846 6010C	1	133540637001	12/26/2013	10:57	John W Yanzuk II	1
06947	Beryllium	SW-846 6010C	1	133540637001	12/26/2013	10:57	John W Yanzuk II	1
07914	Boron	SW-846 6010C	1	133540637001	12/26/2013	10:57	John W Yanzuk II	1
06949	Cadmium	SW-846 6010C	1	133540637001	12/26/2013	10:57	John W Yanzuk II	1
01650	Calcium	SW-846 6010C	1	133540637001	12/27/2013	03:52	Tara L Snyder	1
06951	Chromium	SW-846 6010C	1	133540637001	12/26/2013	10:57	John W Yanzuk II	1
06952	Cobalt	SW-846 6010C	1	133540637001	12/26/2013	10:57	John W Yanzuk II	1
06953	Copper	SW-846 6010C	1	133540637001	12/26/2013	10:57	John W Yanzuk II	1
01654	Iron	SW-846 6010C	1	133540637001	12/27/2013	03:52	Tara L Snyder	1
06955	Lead	SW-846 6010C	1	133540637001	12/26/2013	10:57	John W Yanzuk II	1
01656	Lithium	SW-846 6010C	1	133540637001	12/26/2013	10:57	John W Yanzuk II	1
01657	Magnesium	SW-846 6010C	1	133540637001	12/27/2013	03:52	Tara L Snyder	1
06958	Manganese	SW-846 6010C	1	133540637001	12/26/2013	10:57	John W Yanzuk II	1
06960	Molybdenum	SW-846 6010C	1	133540637001	12/26/2013	10:57	John W Yanzuk II	1
06961	Nickel	SW-846 6010C	1	133540637001	12/26/2013	10:57	John W Yanzuk II	1
10145	Phosphorus	SW-846 6010C	1	133540637001	12/26/2013	10:57	John W Yanzuk II	1
01662	Potassium	SW-846 6010C	1	133540637001	12/26/2013	10:57	John W Yanzuk II	1
01667	Sodium	SW-846 6010C	1	133540637001	12/26/2013	10:57	John W Yanzuk II	1
06969	Tin	SW-846 6010C	1	133540637001	12/26/2013	10:57	John W Yanzuk II	1
06970	Titanium	SW-846 6010C	1	133540637001	12/26/2013	10:57	John W Yanzuk II	1
06971	Vanadium	SW-846 6010C	1	133540637001	12/26/2013	10:57	John W Yanzuk II	1
06972	Zinc	SW-846 6010C	1	133540637001	12/26/2013	10:57	John W Yanzuk II	1
10146	Zirconium	SW-846 6010C	1	133540637001	12/26/2013	10:57	John W Yanzuk II	1
06141	Selenium	SW-846 6020A	1	133540637001B	01/04/2014	00:28	John P Hook	2
06142	Silver	SW-846 6020A	1	133540637001A	01/04/2014	00:28	John P Hook	2
06144	Strontium	SW-846 6020A	1	133540637001A	01/04/2014	00:28	John P Hook	2

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-844-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7312466
LL Group # 1440744
Account # 13013

Project Name: SSFL Phase 3 Sampling

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CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

84400 SDG#: PH148-08*

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06145	Thallium	SW-846 6020A	1	133540637001A	01/04/2014 00:28	John P Hook	2
00159	3a Mercury 7471A	SW-846 7471B	1	133540638001	12/23/2013 10:04	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	133540637001	12/22/2013 08:29	James L Mertz	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	133540638001	12/22/2013 10:33	James L Mertz	1
00394	15a pH by 9045D	SW-846 9045D modified	1	13347039401A	12/13/2013 17:00	Carolyn M Mastropietro	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13352162401C	12/18/2013 21:53	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1440744
Reported: 01/08/14 at 09:12 AM

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 13352SLF026	Sample number(s): 7312454-7312461									
Acenaphthene	1.7	U	1.7	0.67	ug/kg	94		77-116		
Acenaphthylene	1.7	U	1.7	0.33	ug/kg	96		78-120		
Anthracene	1.7	U	1.7	0.33	ug/kg	97		80-116		
Benzo(a)anthracene	1.7	U	1.7	0.67	ug/kg	107		83-119		
Benzo(a)pyrene	1.7	U	1.7	0.67	ug/kg	104		80-122		
Benzo(b)fluoranthene	1.7	U	1.7	0.67	ug/kg	114		82-135		
Benzo(e)pyrene	17	U	17.	3.3	ug/kg	97		81-110		
Benzo(g,h,i)perylene	1.7	U	1.7	0.67	ug/kg	103		79-121		
Benzo(k)fluoranthene	1.7	U	1.7	0.67	ug/kg	105		79-123		
Butylbenzylphthalate	18	U	18.	6.0	ug/kg	104		77-123		
Di-n-butylphthalate	18	U	18.	6.0	ug/kg	95		78-125		
Chrysene	1.7	U	1.7	0.33	ug/kg	107		84-113		
Dibenz(a,h)anthracene	1.7	U	1.7	0.67	ug/kg	98		78-124		
Diethylphthalate	18	U	18.	6.0	ug/kg	99		77-130		
Dimethylphthalate	18	U	18.	6.0	ug/kg	101		85-122		
Bis(2-Ethylhexyl)phthalate	18	U	18.	6.0	ug/kg	100		79-121		
Fluoranthene	1.7	U	1.7	0.67	ug/kg	100		85-116		
Fluorene	1.7	U	1.7	0.67	ug/kg	101		81-126		
Indeno(1,2,3-cd)pyrene	1.7	U	1.7	0.67	ug/kg	102		77-124		
1-Methylnaphthalene	1.7	U	1.7	0.67	ug/kg	108		78-119		
2-Methylnaphthalene	1.7	U	1.7	0.67	ug/kg	108		78-121		
Naphthalene	1.7	U	1.7	0.67	ug/kg	99		79-113		
N-Nitrosodimethylamine	1.7	U	1.7	0.67	ug/kg	95		71-124		
Di-n-octylphthalate	18	U	18.	6.0	ug/kg	108		76-131		
Phenanthrene	1.7	U	1.7	0.67	ug/kg	96		72-110		
Pyrene	1.7	U	1.7	0.67	ug/kg	108		79-112		
Batch number: 13354SLB026	Sample number(s): 7312462-7312464,7312466									
Acenaphthene	1.7	U	1.7	0.67	ug/kg	88		77-116		
Acenaphthylene	1.7	U	1.7	0.33	ug/kg	90		78-120		
Anthracene	1.7	U	1.7	0.33	ug/kg	91		80-116		
Benzo(a)anthracene	1.7	U	1.7	0.67	ug/kg	101		83-119		
Benzo(a)pyrene	1.7	U	1.7	0.67	ug/kg	100		80-122		
Benzo(b)fluoranthene	1.7	U	1.7	0.67	ug/kg	113		82-135		
Benzo(e)pyrene	17	U	17.	3.3	ug/kg	94		81-110		
Benzo(g,h,i)perylene	1.7	U	1.7	0.67	ug/kg	100		79-121		
Benzo(k)fluoranthene	1.7	U	1.7	0.67	ug/kg	95		79-123		
Butylbenzylphthalate	18	U	18.	6.0	ug/kg	96		77-123		
Di-n-butylphthalate	18	U	18.	6.0	ug/kg	89		78-125		
Chrysene	1.7	U	1.7	0.33	ug/kg	102		84-113		
Dibenz(a,h)anthracene	1.7	U	1.7	0.67	ug/kg	96		78-124		
Diethylphthalate	18	U	18.	6.0	ug/kg	94		77-130		
Dimethylphthalate	18	U	18.	6.0	ug/kg	97		85-122		

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1440744
Reported: 01/08/14 at 09:12 AM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Bis(2-Ethylhexyl)phthalate	18	U	18.	6.0	ug/kg	94		79-121		
Fluoranthene	1.7	U	1.7	0.67	ug/kg	97		85-116		
Fluorene	1.7	U	1.7	0.67	ug/kg	95		81-126		
Indeno(1,2,3-cd)pyrene	1.7	U	1.7	0.67	ug/kg	100		77-124		
1-Methylnaphthalene	1.7	U	1.7	0.67	ug/kg	103		78-119		
2-Methylnaphthalene	1.7	U	1.7	0.67	ug/kg	102		78-121		
Naphthalene	1.7	U	1.7	0.67	ug/kg	92		79-113		
N-Nitrosodimethylamine	1.7	U	1.7	0.67	ug/kg	87		71-124		
Di-n-octylphthalate	18	U	18.	6.0	ug/kg	99		76-131		
Phenanthrene	1.7	U	1.7	0.67	ug/kg	90		72-110		
Pyrene	1.7	U	1.7	0.67	ug/kg	100		79-112		
Batch number: 133500015A	Sample number(s): 7312454-7312459									
2,4-D	36	U	36.	12	ug/kg	101		59-122		
Dalapon	90	U	90.	44	ug/kg	41		25-100		
2,4-DB	17	U	17.	6.2	ug/kg	117		54-131		
Dicamba	12	U	12.	4.0	ug/kg	100		55-138		
Dinoseb	24	U	24.	9.0	ug/kg	42		10-56		
2,4-DP (Dichlorprop)	17	U	17.	9.0	ug/kg	135		65-158		
MCPA	2,500	U	2,500.	760	ug/kg	88		56-133		
MCPP (Mecoprop)	2,500	U	2,500.	750	ug/kg	90		54-134		
2,4,5-T	1.7	U	1.7	0.82	ug/kg	112		58-135		
2,4,5-TP	1.7	U	1.7	0.75	ug/kg	116		63-130		
Batch number: 133480013A	Sample number(s): 7312454-7312460									
Aldrin	0.83	U	0.83	0.17	ug/kg	87		60-118		
Alpha BHC	0.83	U	0.83	0.17	ug/kg	89		62-128		
Beta BHC	1.9	U	1.9	0.96	ug/kg	87		69-121		
Gamma BHC - Lindane	0.83	U	0.83	0.17	ug/kg	98		64-130		
Chlordane	17	U	17.	4.0	ug/kg					
p,p-DDD	1.7	U	1.7	0.33	ug/kg	95		69-141		
p,p-DDE	1.7	U	1.7	0.33	ug/kg	97		69-130		
p,p-DDT	1.7	U	1.7	0.35	ug/kg	97		64-139		
Delta BHC	0.83	U	0.83	0.45	ug/kg	92		51-141		
Dieldrin	1.7	U	1.7	0.33	ug/kg	90		73-135		
Endosulfan I	0.83	U	0.83	0.22	ug/kg	68		64-130		
Endosulfan II	1.7	U	1.7	0.33	ug/kg	74		68-128		
Endosulfan Sulfate	1.7	U	1.7	0.33	ug/kg	92		71-132		
Endrin	1.7	U	1.7	0.33	ug/kg	88		70-132		
Endrin Aldehyde	1.7	U	1.7	0.33	ug/kg	83		60-120		
Endrin Ketone	1.8	U	1.8	0.60	ug/kg	87		74-127		
Heptachlor	0.83	U	0.83	0.17	ug/kg	82		62-127		
Heptachlor Epoxide	0.83	U	0.83	0.17	ug/kg	90		69-125		
Methoxychlor	6.7	U	6.7	1.7	ug/kg	94		67-136		
Mirex	1.7	U	1.7	0.35	ug/kg					
Toxaphene	33	U	33.	14	ug/kg					
Batch number: 133520007A	Sample number(s): 7312462-7312464,7312466									
Aldrin	0.83	U	0.83	0.17	ug/kg	102		60-118		
Alpha BHC	0.83	U	0.83	0.17	ug/kg	104		62-128		
Beta BHC	1.9	U	1.9	0.96	ug/kg	111		69-121		
Gamma BHC - Lindane	0.83	U	0.83	0.17	ug/kg	123		64-130		
Chlordane	17	U	17.	4.0	ug/kg					
p,p-DDD	1.7	U	1.7	0.33	ug/kg	117		69-141		

*- Outside of specification
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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1440744
Reported: 01/08/14 at 09:12 AM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
p,p-DDE	1.7	U	1.7	0.33	ug/kg	118		69-130		
p,p-DDT	1.7	U	1.7	0.35	ug/kg	117		64-139		
Delta BHC	0.83	U	0.83	0.45	ug/kg	108		51-141		
Dieldrin	1.7	U	1.7	0.33	ug/kg	107		73-135		
Endosulfan I	0.83	U	0.83	0.22	ug/kg	91		64-130		
Endosulfan II	1.7	U	1.7	0.33	ug/kg	108		68-128		
Endosulfan Sulfate	1.7	U	1.7	0.33	ug/kg	114		71-132		
Endrin	1.7	U	1.7	0.33	ug/kg	105		70-132		
Endrin Aldehyde	1.7	U	1.7	0.33	ug/kg	98		60-120		
Endrin Ketone	1.8	U	1.8	0.60	ug/kg	109		74-127		
Heptachlor	0.83	U	0.83	0.17	ug/kg	95		62-127		
Heptachlor Epoxide	0.83	U	0.83	0.17	ug/kg	105		69-125		
Methoxychlor	6.7	U	6.7	1.7	ug/kg	116		67-136		
Mirex	1.7	U	1.7	0.35	ug/kg					
Toxaphene	33	U	33.	14	ug/kg					
Batch number: 133530025A	Sample number(s): 7312460-7312464,7312466									
EFH (C12-C14)	5.0	U	5.0	2.0	mg/kg	93		76-115		
EFH (C15-C20)	5.0	U	5.0	2.0	mg/kg	96		78-127		
EFH (C21-C30)	5.0	U	5.0	2.0	mg/kg	97		77-127		
EFH (C30-C40)	10	U	10.	4.0	mg/kg	76		44-134		
EFH (C8-C11)	5.0	U	5.0	2.0	mg/kg	76		60-115		
Batch number: 133540637001	Sample number(s): 7312462-7312466									
Aluminum	40.0	U	40.0	7.21	mg/kg	108		80-120		
Antimony	4.00	U	4.00	0.740	mg/kg	107		80-120		
Arsenic	4.00	U	4.00	0.700	mg/kg	106		80-120		
Barium	1.00	U	1.00	0.0330	mg/kg	104		80-120		
Beryllium	1.00	U	1.00	0.0670	mg/kg	102		80-120		
Boron	10.0	U	10.0	0.840	mg/kg	100		80-120		
Cadmium	1.00	U	1.00	0.0760	mg/kg	106		80-120		
Calcium	14.3	J	20.0	3.34	mg/kg	106		80-120		
Chromium	3.00	U	3.00	0.160	mg/kg	103		80-120		
Cobalt	1.00	U	1.00	0.0990	mg/kg	107		80-120		
Copper	2.00	U	2.00	0.290	mg/kg	104		80-120		
Iron	40.0	U	40.0	3.62	mg/kg	104		80-120		
Lead	3.00	U	3.00	0.500	mg/kg	112		80-120		
Lithium	4.0	U	4.0	0.34	mg/kg	101		80-120		
Magnesium	10.0	U	10.0	1.67	mg/kg	103		80-120		
Manganese	1.00	U	1.00	0.0830	mg/kg	104		80-120		
Molybdenum	2.00	U	2.00	0.170	mg/kg	104		80-120		
Nickel	2.00	U	2.00	0.130	mg/kg	110		80-120		
Phosphorus	10.0	U	10.0	2.89	mg/kg	106		80-120		
Potassium	100 U		100.	8.34	mg/kg	95		80-120		
Sodium	100 U		100.	16.7	mg/kg	95		80-120		
Tin	1.62	J	10.0	0.220	mg/kg	103		80-120		
Titanium	1.00	U	1.00	0.170	mg/kg	105		80-120		
Vanadium	1.00	U	1.00	0.130	mg/kg	100		80-120		
Zinc	0.768	J	4.00	0.200	mg/kg	106		80-120		
Zirconium	5.00	U	5.00	0.840	mg/kg	100		80-120		
Batch number: 133540637001A	Sample number(s): 7312462-7312466									
Silver	0.200	U	0.200	0.0260	mg/kg	111		80-120		
Strontium	0.111	J	0.400	0.0680	mg/kg	115		80-120		

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1440744
Reported: 01/08/14 at 09:12 AM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Thallium	0.200	U	0.200	0.0300	mg/kg	112		80-120		
Batch number: 133540637001B	Sample number(s): 7312462-7312466									
Selenium	0.400	U	0.400	0.100	mg/kg	118		80-120		
Batch number: 133540638001	Sample number(s): 7312462-7312466									
3a Mercury 7471A	0.0167	U	0.0167	0.0100	mg/kg	100		85-120		
Batch number: 13347039401A	Sample number(s): 7312462,7312465-7312466									
15a pH by 9045D						99		95-105		
Batch number: 13352162401B	Sample number(s): 7312454-7312461									
14a Moisture Content by 160.3						100		80-120		
14a Moisture Content by 160.3						100		80-120		
14a Moisture Content by 160.3						100		80-120		
Batch number: 13352162401C	Sample number(s): 7312462-7312466									
14a Moisture Content by 160.3						100		80-120		
14a Moisture Content by 160.3						100		80-120		
14a Moisture Content by 160.3						100		80-120		

Analysis Name	Blank Result		Blank MRL**	Blank EDL	Report Units	OPR %REC	OPRD %REC	OPR/OPRD Limits	RPD	RPD Max
Batch number: 13352002	Sample number(s): 7312454-7312456									
2378-TCDD	0.0902	J	1.00	0.0827	ng/kg	82		67-158		
12378-PeCDD	0.0701	J	5.00	0.0555	ng/kg	87		70-142		
123478-HxCDD	5.00	U	5.00	0.0374	ng/kg	93		70-164		
123678-HxCDD	0.0651	J	5.00	0.0391	ng/kg	92		76-134		
123789-HxCDD	0.0482	J	5.00	0.0379	ng/kg	90		64-162		
1234678-HpCDD	0.0732	J	5.00	0.0482	ng/kg	89		70-140		
OCDD	0.238	J	10.0	0.0401	ng/kg	88		78-144		
2378-TCDF	0.105	J	1.00	0.0967	ng/kg	88		75-158		
12378-PeCDF	0.0761	J	5.00	0.0435	ng/kg	89		80-134		
23478-PeCDF	0.0474	J	5.00	0.0408	ng/kg	90		68-160		
123478-HxCDF	5.00	U	5.00	0.0397	ng/kg	91		72-134		
123678-HxCDF	5.00	U	5.00	0.0368	ng/kg	94		84-130		
123789-HxCDF	0.0534	J	5.00	0.0472	ng/kg	90		78-130		
234678-HxCDF	0.0388	J	5.00	0.0382	ng/kg	91		70-156		
1234678-HpCDF	0.0397	J	5.00	0.0197	ng/kg	90		82-122		
1234789-HpCDF	0.0368	J	5.00	0.0293	ng/kg	93		78-138		
OCDF	0.201	J	10.0	0.0722	ng/kg	89		63-170		
Batch number: 13353005	Sample number(s): 7312457-7312460,7312462-7312464,7312466									
2378-TCDD	1.00	U	1.00	0.111	ng/kg	96		67-158		
12378-PeCDD	5.00	U	5.00	0.0572	ng/kg	97		70-142		
123478-HxCDD	5.00	U	5.00	0.0280	ng/kg	98		70-164		
123678-HxCDD	0.0586	J	5.00	0.0292	ng/kg	100		76-134		
123789-HxCDD	5.00	U	5.00	0.0276	ng/kg	96		64-162		
1234678-HpCDD	0.0690	J	5.00	0.0341	ng/kg	96		70-140		
OCDD	0.271	J	10.0	0.0282	ng/kg	97		78-144		
2378-TCDF	1.00	U	1.00	0.0876	ng/kg	97		75-158		
12378-PeCDF	0.0545	J	5.00	0.0321	ng/kg	96		80-134		
23478-PeCDF	0.0525	J	5.00	0.0323	ng/kg	99		68-160		
123478-HxCDF	0.0531	J	5.00	0.0287	ng/kg	97		72-134		

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1440744
Reported: 01/08/14 at 09:12 AM

Analysis Name	Blank Result		Blank MRL**	Blank EDL	Report Units	OPR %REC	OPRD %REC	OPR/OPRD Limits	RPD	RPD Max
123678-HxCDF	5.00	U	5.00	0.0254	ng/kg	98		84-130		
123789-HxCDF	0.0403	J	5.00	0.0290	ng/kg	108		78-130		
234678-HxCDF	0.0536	J	5.00	0.0260	ng/kg	97		70-156		
1234678-HpCDF	0.0520	J	5.00	0.0124	ng/kg	96		82-122		
1234789-HpCDF	0.0556	J	5.00	0.0205	ng/kg	100		78-138		
OCDF	0.173	J	10.0	0.0515	ng/kg	96		63-170		

Batch number: 13352002 Sample number(s): 7312454-7312456
TEQ WHO 2005 - EDLx0.0 0.00970 ng/kg

Batch number: 13353005 Sample number(s): 7312457-7312460,7312462-7312464,7312466
TEQ WHO 2005 - EDLx0.0 0.0200 ng/kg

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 13352SLF026	Sample number(s): 7312454-7312461 UNSPK: 7312454								
Acenaphthene	75	75	48-127	0	30				
Acenaphthylene	74	74	49-121	1	30				
Anthracene	76	79	52-126	4	30				
Benzo(a)anthracene	82	86	44-143	4	30				
Benzo(a)pyrene	83	86	44-140	4	30				
Benzo(b)fluoranthene	102	106	26-142	3	30				
Benzo(e)pyrene	80	86	70-130	7	30				
Benzo(g,h,i)perylene	39	40	33-141	3	30				
Benzo(k)fluoranthene	94	104	54-142	10	30				
Butylbenzylphthalate	100	111	49-151	11	30				
Di-n-butylphthalate	76	82	52-147	8	30				
Chrysene	84	86	29-148	3	30				
Dibenz(a,h)anthracene	49	50	20-137	2	30				
Diethylphthalate	71	69	43-145	2	30				
Dimethylphthalate	91	90	58-129	1	30				
Bis(2-Ethylhexyl)phthalate	95	87	39-167	6	30				
Fluoranthene	76	80	40-148	4	30				
Fluorene	75	68	51-137	10	30				
Indeno(1,2,3-cd)pyrene	50	51	17-136	1	30				
1-Methylnaphthalene	89	88	50-131	1	30				
2-Methylnaphthalene	90	87	35-152	3	30				
Naphthalene	82	77	31-148	5	30				
N-Nitrosodimethylamine	87	84	48-113	3	30				
Di-n-octylphthalate	147	167*	52-162	12	30				
Phenanthrene	78	80	29-142	2	30				
Pyrene	90	97	26-143	8	30				
Batch number: 13354SLB026	Sample number(s): 7312462-7312464,7312466 UNSPK: 7312462								

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1440744
Reported: 01/08/14 at 09:12 AM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Acenaphthene	84	79	48-127	7	30				
Acenaphthylene	85	80	49-121	6	30				
Anthracene	86	82	52-126	5	30				
Benzo(a)anthracene	91	87	44-143	4	30				
Benzo(a)pyrene	88	86	44-140	3	30				
Benzo(b)fluoranthene	95	92	26-142	2	30				
Benzo(e)pyrene	89	85	70-130	4	30				
Benzo(g,h,i)perylene	53	53	33-141	1	30				
Benzo(k)fluoranthene	101	96	54-142	5	30				
Butylbenzylphthalate	96	92	49-151	4	30				
Di-n-butylphthalate	85	81	52-147	4	30				
Chrysene	91	88	29-148	4	30				
Dibenz(a,h)anthracene	61	60	20-137	1	30				
Diethylphthalate	91	87	43-145	5	30				
Dimethylphthalate	94	89	58-129	6	30				
Bis(2-Ethylhexyl)phthalate	99	92	39-167	8	30				
Fluoranthene	86	82	40-148	4	30				
Fluorene	90	85	51-137	6	30				
Indeno(1,2,3-cd)pyrene	62	61	17-136	1	30				
1-Methylnaphthalene	99	92	50-131	7	30				
2-Methylnaphthalene	98	92	35-152	7	30				
Naphthalene	87	81	31-148	6	30				
N-Nitrosodimethylamine	83	78	48-113	6	30				
Di-n-octylphthalate	117	111	52-162	6	30				
Phenanthrene	85	82	29-142	4	30				
Pyrene	88	84	26-143	4	30				
Batch number: 133500015A	Sample number(s): 7312454-7312459 UNSPK: 7312454								
2,4-D	138	148*	42-143	7	35				
Dalapon	96	75	16-98	25	50				
2,4-DB	135	146	10-179	8	50				
Dicamba	118	138*	55-133	16	50				
Dinoseb	30	25	10-52	19	35				
2,4-DP (Dichlorprop)	158	168	32-171	6	50				
MCPA	118	135	23-169	14	50				
MCPP (Mecoprop)	103	113	24-164	9	50				
2,4,5-T	27	35	12-172	26	35				
2,4,5-TP	104	111	10-142	6	35				
Batch number: 133480013A	Sample number(s): 7312454-7312460 UNSPK: 7312454								
Aldrin	86	94	16-126	9	50				
Alpha BHC	76	89	14-140	16	50				
Beta BHC	100	102	42-133	2	50				
Gamma BHC - Lindane	92	107	30-137	16	50				
p,p-DDD	96	104	43-149	9	50				
p,p-DDE	127	141	35-152	10	50				
p,p-DDT	86	102	12-193	13	50				
Delta BHC	75	105	13-153	34	50				
Dieldrin	81	92	41-153	12	50				
Endosulfan I	65	77	26-146	17	50				
Endosulfan II	73	83	34-141	13	50				
Endosulfan Sulfate	91	106	10-181	16	50				

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1440744
Reported: 01/08/14 at 09:12 AM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
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Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Endrin	81	91	30-152	11	50				
Endrin Aldehyde	79	87	23-138	10	50				
Endrin Ketone	86	93	30-148	7	50				
Heptachlor	81	97	16-152	16	50				
Heptachlor Epoxide	87	105	33-144	18	50				
Methoxychlor	95	106	41-161	10	50				
Batch number: 133520007A	Sample number(s): 7312462-7312464,7312466 UNSPK: 7312462								
Aldrin	102	105	16-126	3	50				
Alpha BHC	102	105	14-140	3	50				
Beta BHC	117	116	42-133	1	50				
Gamma BHC - Lindane	126	127	30-137	1	50				
p,p-DDD	119	118	43-149	0	50				
p,p-DDE	118	116	35-152	1	50				
p,p-DDT	120	113	12-193	5	50				
Delta BHC	118	114	13-153	3	50				
Dieldrin	104	106	41-153	2	50				
Endosulfan I	88	94	26-146	7	50				
Endosulfan II	103	107	34-141	5	50				
Endosulfan Sulfate	113	111	10-181	2	50				
Endrin	103	103	30-152	1	50				
Endrin Aldehyde	89	98	23-138	10	50				
Endrin Ketone	104	104	30-148	0	50				
Heptachlor	94	97	16-152	3	50				
Heptachlor Epoxide	103	105	33-144	1	50				
Methoxychlor	114	116	41-161	2	50				
Batch number: 133530025A	Sample number(s): 7312460-7312464,7312466 UNSPK: 7312462								
EFH (C12-C14)	95	93	49-123	1	20				
EFH (C15-C20)	115	113	49-123	0	20				
EFH (C21-C30)	49	83	49-123	19	20				
EFH (C30-C40)	28*	74	49-123	19	20				
EFH (C8-C11)	84	82	49-123	2	20				
Batch number: 133540637001	Sample number(s): 7312462-7312466 UNSPK: 7312462 BKG: 7312462								
Aluminum	1159 (2)	1359 (2)	75-125	3	20	9,320	9,610	3	20
Antimony	66*	57*	75-125	16	20	3.85 U	3.92 U	0 (1)	20
Arsenic	105	108	75-125	3	20	2.73 J	2.37 J	14 (1)	20
Barium	98	106	75-125	6	20	62.6	62.4	0	20
Beryllium	102	100	75-125	2	20	0.346 J	0.355 J	2 (1)	20
Boron	93	90	75-125	3	20	8.00 J	7.40 J	8 (1)	20
Cadmium	99	101	75-125	2	20	0.447 J	0.475 J	6 (1)	20
Calcium	133 (2)	97 (2)	75-125	6	20	2,020	2,030	1	20
Chromium	97	101	75-125	3	20	13.3	13.2	1 (1)	20
Cobalt	97	98	75-125	1	20	4.29	4.41	3 (1)	20
Copper	94	93	75-125	1	20	3.66	3.35	9 (1)	20
Iron	600 (2)	1470 (2)	75-125	5	20	16,900	17,400	3	20
Lead	100	98	75-125	2	20	6.61	6.85	4 (1)	20
Lithium	103	103	75-125	0	20	24.5	27.2	10	20
Magnesium	168 (2)	299 (2)	75-125	6	20	3,780	3,870	2	20

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1440744
Reported: 01/08/14 at 09:12 AM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Manganese	118 (2)	99 (2)	75-125	3	20	266	277	4	20
Molybdenum	95	95	75-125	1	20	0.316 J	0.209 J	41* (1)	20
Nickel	101	103	75-125	2	20	7.83	8.15	4 (1)	20
Phosphorus	46*	47*	75-125	0	20	371	327	13	20
Potassium	108	125	75-125	4	20	2,670	2,870	7	20
Sodium	94	94	75-125	0	20	51.9 J	56.5 J	9 (1)	20
Tin	92	92	75-125	0	20	2.24 J	2.31 J	3 (1)	20
Titanium	327 (2)	323 (2)	75-125	0	20	839	934	11	20
Vanadium	102	103	75-125	0	20	26.3	26.6	1	20
Zinc	100	108	75-125	4	20	49.7	52.7	6	20
Zirconium	94	95	75-125	1	20	0.844 J	1.05 J	22* (1)	20
Batch number: 133540637001A	Sample number(s): 7312462-7312466 UNSPK: 7312462 BKG: 7312462								
Silver	103	108	75-125	5	20	0.0410 J	0.0495 J	19 (1)	20
Strontium	98	97	75-125	1	20	9.48	9.43	1	20
Thallium	117	119	75-125	1	20	0.210	0.260	21* (1)	20
Batch number: 133540637001B	Sample number(s): 7312462-7312466 UNSPK: 7312462 BKG: 7312462								
Selenium	110	111	75-125	1	20	0.273 J	0.268 J	2 (1)	20
Batch number: 133540638001	Sample number(s): 7312462-7312466 UNSPK: 7312462 BKG: 7312462								
3a Mercury 7471A	102	99	65-135	2	20	0.0105 J	0.0161 U	200* (1)	20
Batch number: 13347039401A	Sample number(s): 7312462,7312465-7312466 BKG: 7312462								
15a pH by 9045D						6.47	6.45	0	3
Batch number: 13352162401B	Sample number(s): 7312454-7312461 BKG: 7312454								
14a Moisture Content by 160.3						15.2	13.9	9	20
14a Moisture Content by 160.3						15.2	13.9	9	20
14a Moisture Content by 160.3						15.2	13.9	9	20
Batch number: 13352162401C	Sample number(s): 7312462-7312466 BKG: 7312462								
14a Moisture Content by 160.3						3.7	3.8	2	20
14a Moisture Content by 160.3						3.7	3.8	2	20
14a Moisture Content by 160.3						3.7	3.8	2	20
Batch number: 13352002	Sample number(s): 7312454-7312456 UNSPK: 7312454								
2378-TCDD	83	82	40-135	1	20				
12378-PeCDD	87	88	40-135	2	20				
123478-HxCDD	91	93	40-135	3	20				
123678-HxCDD	93	93	40-135	1	20				
123789-HxCDD	89	91	40-135	3	20				
1234678-HpCDD	93	87	40-135	4	20				
OCDD	109	78	40-135	14	20				
2378-TCDF	85	87	40-135	3	20				
12378-PeCDF	90	91	40-135	1	20				
23478-PeCDF	90	91	40-135	1	20				
123478-HxCDF	91	93	40-135	2	20				
123678-HxCDF	94	96	40-135	2	20				
123789-HxCDF	92	95	40-135	3	20				
234678-HxCDF	91	94	40-135	5	20				
1234678-HpCDF	92	94	40-135	2	20				

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1440744
Reported: 01/08/14 at 09:12 AM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
1234789-HpCDF	92	94	40-135	2	20				
OCDF	90	89	40-135	0	20				
Batch number: 13353005	Sample number(s): 7312457-7312460,7312462-7312464,7312466 UNSPK: 7312462								
2378-TCDD	98	95	40-135	4	20				
12378-PeCDD	99	100	40-135	0	20				
123478-HxCDD	101	100	40-135	1	20				
123678-HxCDD	101	102	40-135	0	20				
123789-HxCDD	99	99	40-135	2	20				
1234678-HpCDD	97	97	40-135	2	20				
OCDD	90	84	40-135	7	20				
2378-TCDF	100	100	40-135	1	20				
12378-PeCDF	98	99	40-135	0	20				
23478-PeCDF	101	100	40-135	2	20				
123478-HxCDF	105	101	40-135	5	20				
123678-HxCDF	107	103	40-135	5	20				
123789-HxCDF	105	102	40-135	3	20				
234678-HxCDF	108	104	40-135	5	20				
1234678-HpCDF	104	102	40-135	3	20				
1234789-HpCDF	107	105	40-135	4	20				
OCDF	106	101	40-135	6	20				

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 7a SVOC SIM EPA 8270D
Batch number: 13352SLF026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
7312454	79	84	101
7312455	67	71	91
7312456	70	73	86
7312457	94	88	107
7312458	95	93	110
7312459	100	85	108
7312460	86	86	98
7312461	96	91	112
Blank	89	92	110
LCS	83	84	102
MS	67	71	91
MSD	70	73	86
Limits:	54-129	59-125	61-125

Analysis Name: 7a SVOC SIM EPA 8270D
Batch number: 13354SLB026

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1440744
Reported: 01/08/14 at 09:12 AM

Surrogate Quality Control

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
7312462	81	78	97
7312463	78	74	94
7312464	75	73	88
7312466	84	83	100
Blank	81	82	101
LCS	79	81	97
MS	78	74	94
MSD	75	73	88
Limits:	54-129	59-125	61-125

Analysis Name: 20a Pesticides by EPA 8081B
Batch number: 133480013A

	Tetrachloro-m-xylene	Decachlorobiphenyl
7312454	80	87
7312455	84	92
7312456	88	101
7312457	78	84
7312458	84	99
7312459	100	98
7312460	77	92
Blank	102	111
LCS	90	95
MS	84	92
MSD	88	101
Limits:	50-130	20-120

Analysis Name: 21a Herbicides by EPA 8151A
Batch number: 133500015A

	2,4-Dichlorophenylacetic acid
7312454	101
7312455	104
7312456	108
7312457	100
7312458	99
7312459	92
Blank	84
LCS	96
MS	104
MSD	108
Limits:	50-150

Analysis Name: 20a Pesticides by EPA 8081B
Batch number: 133520007A

	Tetrachloro-m-xylene	Decachlorobiphenyl
7312462	102	115
7312463	106	112

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1440744
Reported: 01/08/14 at 09:12 AM

Surrogate Quality Control

7312464	104	116
7312466	95	105
Blank	104	115
LCS	109	125*
MS	106	112
MSD	104	116
Limits:	50-130	20-120

Analysis Name: 10a TPH by EPA 8015B (DRO)
Batch number: 133530025A

	Chlorobenzene	Orthoterphenyl
7312460	125	115
7312461	108	89
7312462	112	92
7312463	113	93
7312464	113	93
7312466	103	85
Blank	105	87
LCS	109	96
MS	113	93
MSD	113	93
Limits:	37-125	66-123

Analysis Name: 23a Dioxin/Furan by EPA 1613B
Batch number: 13352002

	13C12-2378-TCDD	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF	13C12-234678-HxCDF	13C12-123789-HxCDF
7312454	78	69	76	82	79	70
7312455	66	61	70	73	73	66
7312456	66	60	69	70	71	69
Blank	71	65	79	83	81	72
MS	66	61	70	73	73	66
MSD	66	60	69	70	71	69
OPR	66	60	71	78	75	69
Limits:	25-164	21-178	26-152	26-123	28-136	29-147

	13C12-1234678-HpCDF	13C12-1234789-HpCDF	13C12-OCDF	13C12-12378-PeCDD	13C12-123478-HxCDD	13C12-123678-HxCDD
7312454	89	62	61	76	87	87
7312455	76	59	58	66	79	78
7312456	74	62	61	65	79	77
Blank	86	66	63	72	91	93
MS	76	59	58	66	79	78
MSD	74	62	61	65	79	77
OPR	86	59	54	68	85	87
Limits:	28-143	26-138	17-157	25-181	32-141	28-130

	13C12-123789-HxCDD	13C12-1234678-HpCDD	13C12-OCDD	13C12-2378-TCDF	13C12-12378-PeCDF
7312454	85	76	75	70	75
7312455	78	71	68	60	64

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1440744
Reported: 01/08/14 at 09:12 AM

Surrogate Quality Control

7312456	76	74	68	60	64
Blank	88	78	75	62	68
MS	78	71	68	60	64
MSD	76	74	68	60	64
OPR	84	76	70	56	66
Limits:	28-130	23-140	17-157	24-169	24-185

Analysis Name: 23a Dioxin/Furan by EPA 1613B
Batch number: 13353005

	13C12-2378-TCDD	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF	13C12-234678-HxCDF	13C12-123789-HxCDF
7312457	59	70	72	76	75	73
7312458	51	58	68	72	71	72
7312459	65	70	73	77	76	58
7312460	60	69	72	77	74	71
7312462	54	61	68	76	73	73
7312463	61	67	73	79	75	75
7312464	54	61	68	74	69	68
7312466	54	62	67	74	68	66
Blank	51	61	60	66	62	62
MS	61	67	73	79	75	75
MSD	54	61	68	74	69	68
OPR	56	65	64	70	67	62
Limits:	25-164	21-178	26-152	26-123	28-136	29-147

	13C12-1234678-HpCDF	13C12-1234789-HpCDF	13C12-OCDF	13C12-12378-PeCDD	13C12-123478-HxCDD	13C12-123678-HxCDD
7312457	86	71	70	72	77	77
7312458	84	77	79	59	74	74
7312459	87	71	70	72	77	78
7312460	86	73	73	72	75	76
7312462	91	70	68	65	78	77
7312463	92	74	76	70	78	79
7312464	88	67	69	64	75	74
7312466	92	64	63	67	73	75
Blank	84	58	56	66	68	69
MS	92	74	76	70	78	79
MSD	88	67	69	64	75	74
OPR	88	66	66	72	76	77
Limits:	28-143	26-138	17-157	25-181	32-141	28-130

	13C12-123789-HxCDD	13C12-1234678-HpCDD	13C12-OCDD	13C12-2378-TCDF	13C12-12378-PeCDF
7312457	76	79	80	56	71
7312458	72	80	86	49	58
7312459	77	77	77	61	73
7312460	74	79	78	57	70
7312462	76	81	81	50	63
7312463	80	82	85	56	68
7312464	74	77	80	51	64
7312466	72	76	77	50	65
Blank	68	71	69	45	63
MS	80	82	85	56	68

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1440744
Reported: 01/08/14 at 09:12 AM

Surrogate Quality Control

MSD	74	77	80	51	64
OPR	76	81	81	49	67
Limits:	28-130	23-140	17-157	24-169	24-185

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

13013 1440744 7312454-66

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 12/12/2013
CarrierName: FedEx
AirbillNo:

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20131212-01
Cooler #: 1
Lab: Lancaster
Lab Phone: 717-556-7259
Lab Address: 2425 New Holland Pike, Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Total Nitrogen ASTM D5373	TOC ASTM D5310	Grain Size ASTM 2488-09a	Other Analysis/Notes
SL-540-NBZ-SB-0.0-0.5MS	12/11/13 14:20	SO	None	6 - SS-Sleeve	10 day							X		X							X	X																		MS/MSD
SL-840-NBZ-SB-0.0-0.5	12/11/13 14:40	SO	None	2 - SS-Sleeve	10 day							X		X							X	X																		
SL-541-NBZ-SB-0.0-0.5	12/11/13 13:25	SO	None	2 - SS-Sleeve	10 day							X		X							X	X																		
SL-542-NBZ-SB-0.0-0.5	12/11/13 12:35	SO	None	2 - SS-Sleeve	10 day							X		X							X	X																		
SL-539-NBZ-SB-0.0-0.5	12/12/13 09:30	SO	None	2 - SS-Sleeve	10 day							X		X								X			X														
SL-543-NBZ-SB-0.0-0.5	12/12/13 13:40	SO	None	1 - SS-Sleeve	10 day							X													X														
SL-544-NBZ-SB-0.0-0.5MS	12/12/13 14:20	SO	None	6 - SS-Sleeve	10 day	X	X					X		X								X			X														MS/MSD
SL-544-NBZ-SB-0.0-0.5MS	12/12/13 14:20	SO	None	1 - 16 oz glass	10 day													X																					MS/MSD
SL-844-NBZ-SB-0.0-0.5	12/12/13 14:40	SO	None	2 - SS-Sleeve	10 day	X	X					X		X								X			X														
SL-844-NBZ-SB-0.0-0.5	12/12/13 14:40	SO	None	1 - 4 oz glass	10 day													X																					

Special Instructions:

Sampler:

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
[illegible]	12/12/2013	16000									
									[illegible]	12/13/13	1030

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Environmental Sample Administration Receipt Documentation Log

1440744

Client/Project: CDM Smith

Date of Receipt: 12/13/13

Time of Receipt: 1030

Source Code: 50-1

Shipping Container Sealed: YES NO

Custody Seal Present * : YES NO

* Custody seal was intact unless otherwise noted in the discrepancy section

Package: Chilled Not Chilled

Temperature of Shipping Containers							
Cooler #	Thermometer ID	Temperature (°C)	Temp Bottle (TB) or Surface Temp (ST)	Wet Ice (WI) or Dry Ice (DI) or Ice Packs (IP)	Ice Present? Y/N	Loose (L) Bagged Ice (B) or NA	Comments
1	DT146	0.6	TB	WI	Y	B	
2							
3							
4							
5							
6							

Number of Trip Blanks received NOT listed on chain of custody: Ø

Paperwork Discrepancy/Unpacking Problems:

did not receive STS-BIO-50-D05_P01-2.0-3.0 12/12/13 13:15
(2 - 8oz glass)

Unpacker Signature/Emp#: [signature] 3647 **Date/Time:** 12/13/13 1115

Issued by Dept. 6042 Management

2174.06

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Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	**BMQL**	Below Minimum Quantitation Level
N.D.	none detected	**MPN**	Most Probable Number
TNTC	Too Numerous To Count	**CP Units**	cobalt-chloroplatinate units
IU	International Units	**NTU**	nephelometric turbidity units
umhos/cm	micromhos/cm	**ng**	nanogram(s)
C	degrees Celsius	**F**	degrees Fahrenheit
meq	milliequivalents	**lb.**	pound(s)
g	gram(s)	**kg**	kilogram(s)
µg	microgram(s)	**mg**	milligram(s)
mL	milliliter(s)	**L**	liter(s)
m3	cubic meter(s)	**µL**	microliter(s)
		pg/L	picogram/liter

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Data Qualifiers:

C – result confirmed by reanalysis.

J - estimated value – The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	**B**	Value is <CRDL, but ≥IDL
B	Analyte was also detected in the blank	**E**	Estimated due to interference
C	Pesticide result confirmed by GC/MS	**M**	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	**N**	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	**S**	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	**U**	Compound was not detected
P	Concentration difference between primary and confirmation columns >25%	**W**	Post digestion spike out of control limits
U	Compound was not detected	*****	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	**+**	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as “analyze immediately” are not performed within 15 minutes.

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ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

January 08, 2014

Project: SSFL Phase 3 Sampling

Submittal Date: 12/14/2013
Group Number: 1440980
SDG: PH151
PO Number: 1204-002-001-AL
State of Sample Origin: CA

Client Sample Description	Lancaster Labs (LL) #
SL-505-NBZ-SB-0.0-0.5 Soil	7313727
SL-521-NBZ-SB-0.0-0.5 Soil	7313728
SL-557-NBZ-SB-0.0-0.5 Soil	7313729

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO Eurofins Lancaster Labs Env Attn: Nicole Maljovec

Respectfully Submitted,

Nicole L. Maljovec
Principal Specialist Group Leader

(717) 556-7259

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Lancaster Laboratories Environmental
2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Analysis Report

Sample Description: SL-505-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea STS

LL Sample # SW 7313727
LL Group # 1440980
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/13/2013 13:00 by EL

Submitted: 12/14/2013 10:50
Reported: 01/08/2014 09:12

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

505-- SDG#: PH151-01

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.70	1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.35	1
12969	Anthracene	120-12-7	0.84	J	1.7	0.35	1
12969	Benzo(a)anthracene	56-55-3	1.4	J	1.7	0.70	1
12969	Benzo(a)pyrene	50-32-8	1.3	J	1.7	0.70	1
12969	Benzo(b)fluoranthene	205-99-2	4.0		1.7	0.70	1
12969	Benzo(e)pyrene	192-97-2	18	U	18	3.5	1
12969	Benzo(g,h,i)perylene	191-24-2	1.3	J	1.7	0.70	1
12969	Benzo(k)fluoranthene	207-08-9	1.1	J	1.7	0.70	1
12969	Butylbenzylphthalate	85-68-7	19	U	19	6.3	1
12969	Di-n-butylphthalate	84-74-2	19	U	19	6.3	1
12969	Chrysene	218-01-9	4.1		1.7	0.35	1
12969	Dibenz(a,h)anthracene	53-70-3	1.7	U	1.7	0.70	1
12969	Diethylphthalate	84-66-2	19	U	19	6.3	1
12969	Dimethylphthalate	131-11-3	19	U	19	6.3	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	8.4	J	19	6.3	1
12969	Fluoranthene	206-44-0	4.0		1.7	0.70	1
12969	Fluorene	86-73-7	1.7	U	1.7	0.70	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	0.93	J	1.7	0.70	1
12969	1-Methylnaphthalene	90-12-0	5.6		1.7	0.70	1
12969	2-Methylnaphthalene	91-57-6	7.9		1.7	0.70	1
12969	Naphthalene	91-20-3	20		1.7	0.70	1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.70	1
12969	Di-n-octylphthalate	117-84-0	19	U	19	6.3	1
12969	Phenanthrene	85-01-8	6.2		1.7	0.70	1
12969	Pyrene	129-00-0	3.5		1.7	0.70	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	26	U	26	10	5
12952	EFH (C15-C20)	n.a.	15	J	26	10	5
12952	EFH (C21-C30)	n.a.	67		26	10	5
12952	EFH (C30-C40)	n.a.	230		52	21	5
12952	EFH (C8-C11)	n.a.	26	U	26	10	5
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	12,900		41.5	7.47	1
06944	Antimony	7440-36-0	1.34	J	4.15	0.767	1
06935	Arsenic	7440-38-2	5.14		4.15	0.726	1
06946	Barium	7440-39-3	89.4		1.04	0.0342	1
06947	Beryllium	7440-41-7	0.570	J	1.04	0.0695	1
07914	Boron	7440-42-8	8.32	J	10.4	0.871	1
06949	Cadmium	7440-43-9	1.04	U	1.04	0.0788	1
01650	Calcium	7440-70-2	5,940		20.7	3.46	1
06951	Chromium	7440-47-3	17.0		3.11	0.166	1
06952	Cobalt	7440-48-4	6.00		1.04	0.103	1
06953	Copper	7440-50-8	12.6		2.07	0.301	1
01654	Iron	7439-89-6	21,800		41.5	3.75	1
06955	Lead	7439-92-1	17.3		3.11	0.518	1
01656	Lithium	7439-93-2	28.2		4.1	0.35	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-505-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea STS

LL Sample # SW 7313727
LL Group # 1440980
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/13/2013 13:00 by EL

Submitted: 12/14/2013 10:50
Reported: 01/08/2014 09:12

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

505-- SDG#: PH151-01

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01657	Magnesium	7439-95-4	4,520		10.4	1.73	1
06958	Manganese	7439-96-5	333		1.04	0.0861	1
06960	Molybdenum	7439-98-7	0.247	J	2.07	0.176	1
06961	Nickel	7440-02-0	12.4		2.07	0.135	1
10145	Phosphorus	7723-14-0	510		10.4	3.00	1
01662	Potassium	7440-09-7	3,710		104	8.65	1
01667	Sodium	7440-23-5	68.6	J	104	17.3	1
06969	Tin	7440-31-5	3.11	J	10.4	0.228	1
06970	Titanium	7440-32-6	818		1.04	0.176	1
06971	Vanadium	7440-62-2	33.6		1.04	0.135	1
06972	Zinc	7440-66-6	73.8		4.15	0.207	1
10146	Zirconium	7440-67-7	2.09	J	5.18	0.871	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.427		0.415	0.104	2
06142	Silver	7440-22-4	0.0674	J	0.207	0.0270	2
06144	Strontium	7440-24-6	23.3		1.04	0.176	5
06145	Thallium	7440-28-0	0.307		0.207	0.0311	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0362		0.0174	0.0104	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045D	n.a.	6.93		0.0100	0.0100	1
	The pH was measured in water at 19.4 C.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	4.5		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

*=This limit was used in the evaluation of the final result

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2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Analysis Report

Sample Description: SL-505-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea STS

LL Sample # SW 7313727
LL Group # 1440980
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/13/2013 13:00 by EL

Submitted: 12/14/2013 10:50
Reported: 01/08/2014 09:12

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

505-- SDG#: PH151-01

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0807	JQ	1.05	0.0521	1
11031	12378-PeCDD	40321-76-4	0.326	JBQ	5.24	0.0472	1
11031	123478-HxCDD	39227-28-6	0.147	JB	5.24	0.0313	1
11031	123678-HxCDD	57653-85-7	0.394	JB	5.24	0.0333	1
11031	123789-HxCDD	19408-74-3	0.419	JB	5.24	0.0308	1
11031	1234678-HpCDD	35822-46-9	3.44	JB	5.24	0.0270	1
11031	OCDD	3268-87-9	24.0	B	10.5	0.0218	1
11031	2378-TCDF	51207-31-9	0.440	JQ	1.05	0.0652	1
11031	12378-PeCDF	57117-41-6	0.718	JB	5.24	0.0324	1
11031	23478-PeCDF	57117-31-4	0.608	JB	5.24	0.0296	1
11031	123478-HxCDF	70648-26-9	0.224	JB	5.24	0.0284	1
11031	123678-HxCDF	57117-44-9	0.239	JBQ	5.24	0.0274	1
11031	123789-HxCDF	72918-21-9	0.202	JB	5.24	0.0280	1
11031	234678-HxCDF	60851-34-5	0.272	JBQ	5.24	0.0253	1
11031	1234678-HpCDF	67562-39-4	1.08	JB	5.24	0.0280	1
11031	1234789-HpCDF	55673-89-7	0.125	JBQ	5.24	0.0315	1
11031	OCDF	39001-02-0	1.79	JB	10.5	0.0277	1
D/F Toxic Equivalents	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.395				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	73	25 - 164
13C12-12378-PeCDD	73	25 - 181
13C12-123478-HxCDD	83	32 - 141
13C12-123678-HxCDD	81	28 - 130
13C12-123789-HxCDD	82	28 - 130
13C12-1234678-HpCDD	82	23 - 140
13C12-OCDD	79	17 - 157
13C12-2378-TCDF	67	24 - 169
13C12-12378-PeCDF	71	24 - 185
13C12-23478-PeCDF	74	21 - 178
13C12-123478-HxCDF	82	26 - 152
13C12-123678-HxCDF	81	26 - 123
13C12-234678-HxCDF	87	28 - 136
13C12-123789-HxCDF	88	29 - 147
13C12-1234678-HpCDF	84	28 - 143
13C12-1234789-HpCDF	83	26 - 138
13C12-OCDF	80	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-505-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea STS

LL Sample # SW 7313727
LL Group # 1440980
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/13/2013 13:00 by EL

Submitted: 12/14/2013 10:50
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505-- SDG#: PH151-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

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Analysis Report

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SSFL Phase 3 Subarea STS

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505-- SDG#: PH151-01

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13352SLF026	01/02/2014	06:42	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	13352SLF026	12/19/2013	09:00	Anna E Stager	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	133500024A	12/19/2013	02:30	Heather E Williams	5
12959	EFH soil ext.(microwave)	SW-846 3546	1	133500024A	12/17/2013	08:40	Katheryne V Sponheimer	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13355001	12/24/2013	14:55	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13355001	12/21/2013	11:00	Chin F Ly	1
01643	Aluminum	SW-846 6010C	1	133540637001	12/27/2013	04:03	Tara L Snyder	1
06944	Antimony	SW-846 6010C	1	133540637001	12/26/2013	11:01	John W Yanzuk II	1
06935	Arsenic	SW-846 6010C	1	133540637001	12/26/2013	11:01	John W Yanzuk II	1
06946	Barium	SW-846 6010C	1	133540637001	12/26/2013	11:01	John W Yanzuk II	1
06947	Beryllium	SW-846 6010C	1	133540637001	12/26/2013	11:01	John W Yanzuk II	1
07914	Boron	SW-846 6010C	1	133540637001	12/26/2013	11:01	John W Yanzuk II	1
06949	Cadmium	SW-846 6010C	1	133540637001	12/26/2013	11:01	John W Yanzuk II	1
01650	Calcium	SW-846 6010C	1	133540637001	12/27/2013	04:03	Tara L Snyder	1
06951	Chromium	SW-846 6010C	1	133540637001	12/26/2013	11:01	John W Yanzuk II	1
06952	Cobalt	SW-846 6010C	1	133540637001	12/26/2013	11:01	John W Yanzuk II	1
06953	Copper	SW-846 6010C	1	133540637001	12/26/2013	11:01	John W Yanzuk II	1
01654	Iron	SW-846 6010C	1	133540637001	12/27/2013	04:03	Tara L Snyder	1
06955	Lead	SW-846 6010C	1	133540637001	12/26/2013	11:01	John W Yanzuk II	1
01656	Lithium	SW-846 6010C	1	133540637001	12/26/2013	11:01	John W Yanzuk II	1
01657	Magnesium	SW-846 6010C	1	133540637001	12/27/2013	04:03	Tara L Snyder	1
06958	Manganese	SW-846 6010C	1	133540637001	12/26/2013	11:01	John W Yanzuk II	1
06960	Molybdenum	SW-846 6010C	1	133540637001	12/26/2013	11:01	John W Yanzuk II	1
06961	Nickel	SW-846 6010C	1	133540637001	12/26/2013	11:01	John W Yanzuk II	1
10145	Phosphorus	SW-846 6010C	1	133540637001	12/26/2013	11:01	John W Yanzuk II	1
01662	Potassium	SW-846 6010C	1	133540637001	12/26/2013	11:01	John W Yanzuk II	1
01667	Sodium	SW-846 6010C	1	133540637001	12/26/2013	11:01	John W Yanzuk II	1
06969	Tin	SW-846 6010C	1	133540637001	12/26/2013	11:01	John W Yanzuk II	1
06970	Titanium	SW-846 6010C	1	133540637001	12/26/2013	11:01	John W Yanzuk II	1
06971	Vanadium	SW-846 6010C	1	133540637001	12/26/2013	11:01	John W Yanzuk II	1
06972	Zinc	SW-846 6010C	1	133540637001	12/26/2013	11:01	John W Yanzuk II	1
10146	Zirconium	SW-846 6010C	1	133540637001	12/26/2013	11:01	John W Yanzuk II	1
06141	Selenium	SW-846 6020A	1	133540637001B	01/04/2014	00:31	John P Hook	2
06142	Silver	SW-846 6020A	1	133540637001A	01/04/2014	00:31	John P Hook	2
06144	Strontium	SW-846 6020A	1	133540637001A	01/07/2014	21:19	John P Hook	5
06145	Thallium	SW-846 6020A	1	133540637001A	01/04/2014	00:31	John P Hook	2
00159	3a Mercury 7471A	SW-846 7471B	1	133540638001	12/23/2013	10:06	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	133540637001	12/22/2013	08:29	James L Mertz	1

*=This limit was used in the evaluation of the final result

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SSFL Phase 3 Subarea STS

LL Sample # SW 7313727
LL Group # 1440980
Account # 13013

Project Name: SSFL Phase 3 Sampling

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505-- SDG#: PH151-01

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	133540638001	12/22/2013 10:33	James L Mertz	1
00394	15a pH by 9045D	SW-846 9045D modified	1	13349039401A	12/15/2013 04:40	Daniel S Smith	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13354162401A	12/20/2013 23:00	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-521-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea STS

LL Sample # SW 7313728
LL Group # 1440980
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/13/2013 09:35 by EL

Submitted: 12/14/2013 10:50
Reported: 01/08/2014 09:12

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

521-- SDG#: PH151-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.69	1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.35	1
12969	Anthracene	120-12-7	1.7	U	1.7	0.35	1
12969	Benzo(a)anthracene	56-55-3	0.75	J	1.7	0.69	1
12969	Benzo(a)pyrene	50-32-8	0.90	J	1.7	0.69	1
12969	Benzo(b)fluoranthene	205-99-2	1.8		1.7	0.69	1
12969	Benzo(e)pyrene	192-97-2	18	U	18	3.5	1
12969	Benzo(g,h,i)perylene	191-24-2	1.7	U	1.7	0.69	1
12969	Benzo(k)fluoranthene	207-08-9	1.7	U	1.7	0.69	1
12969	Butylbenzylphthalate	85-68-7	28		19	6.2	1
12969	Di-n-butylphthalate	84-74-2	19	U	19	6.2	1
12969	Chrysene	218-01-9	2.1		1.7	0.35	1
12969	Dibenz(a,h)anthracene	53-70-3	1.7	U	1.7	0.69	1
12969	Diethylphthalate	84-66-2	19	U	19	6.2	1
12969	Dimethylphthalate	131-11-3	19	U	19	6.2	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	11	J	19	6.2	1
12969	Fluoranthene	206-44-0	1.8		1.7	0.69	1
12969	Fluorene	86-73-7	1.7	U	1.7	0.69	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.7	U	1.7	0.69	1
12969	1-Methylnaphthalene	90-12-0	0.79	J	1.7	0.69	1
12969	2-Methylnaphthalene	91-57-6	1.2	J	1.7	0.69	1
12969	Naphthalene	91-20-3	2.7		1.7	0.69	1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.69	1
12969	Di-n-octylphthalate	117-84-0	19	U	19	6.2	1
12969	Phenanthrene	85-01-8	1.5	J	1.7	0.69	1
12969	Pyrene	129-00-0	2.1		1.7	0.69	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.2	U	5.2	2.1	1
12952	EFH (C15-C20)	n.a.	4.2	J	5.2	2.1	1
12952	EFH (C21-C30)	n.a.	27		5.2	2.1	1
12952	EFH (C30-C40)	n.a.	57		10	4.2	1
12952	EFH (C8-C11)	n.a.	5.2	U	5.2	2.1	1
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	14,000		40.1	7.24	1
06944	Antimony	7440-36-0	1.50	J	4.01	0.743	1
06935	Arsenic	7440-38-2	5.36		4.01	0.703	1
06946	Barium	7440-39-3	74.8		1.00	0.0331	1
06947	Beryllium	7440-41-7	0.660	J	1.00	0.0672	1
07914	Boron	7440-42-8	8.25	J	10.0	0.843	1
06949	Cadmium	7440-43-9	1.00	U	1.00	0.0763	1
01650	Calcium	7440-70-2	6,130		20.1	3.35	1
06951	Chromium	7440-47-3	21.1		3.01	0.161	1
06952	Cobalt	7440-48-4	6.83		1.00	0.0994	1
06953	Copper	7440-50-8	12.5		2.01	0.291	1
01654	Iron	7439-89-6	22,900		40.1	3.63	1
06955	Lead	7439-92-1	13.7		3.01	0.502	1
01656	Lithium	7439-93-2	25.2		4.0	0.34	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-521-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea STS

LL Sample # SW 7313728
LL Group # 1440980
Account # 13013

Project Name: SSFL Phase 3 Sampling

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CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

521-- SDG#: PH151-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01657	Magnesium	7439-95-4	5,690		10.0	1.68	1
06958	Manganese	7439-96-5	332		1.00	0.0833	1
06960	Molybdenum	7439-98-7	0.176	J	2.01	0.171	1
06961	Nickel	7440-02-0	14.4		2.01	0.130	1
10145	Phosphorus	7723-14-0	508		10.0	2.90	1
01662	Potassium	7440-09-7	4,130		100	8.37	1
01667	Sodium	7440-23-5	65.8	J	100	16.8	1
06969	Tin	7440-31-5	2.82	J	10.0	0.221	1
06970	Titanium	7440-32-6	896		1.00	0.171	1
06971	Vanadium	7440-62-2	38.2		1.00	0.130	1
06972	Zinc	7440-66-6	67.1		4.01	0.201	1
10146	Zirconium	7440-67-7	3.07	J	5.02	0.843	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.150	J	0.401	0.100	2
06142	Silver	7440-22-4	0.0775	J	0.201	0.0261	2
06144	Strontium	7440-24-6	28.7		1.00	0.171	5
06145	Thallium	7440-28-0	0.285		0.201	0.0301	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0148	J	0.0172	0.0103	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045D	n.a.	7.68		0.0100	0.0100	1
	The pH was measured in water at 19.3 C.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	4.2		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

*=This limit was used in the evaluation of the final result

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Analysis Report

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SSFL Phase 3 Subarea STS

LL Sample # SW 7313728
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521-- SDG#: PH151-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	1.02	U	1.02	0.0547	1
11031	12378-PeCDD	40321-76-4	5.11	U	5.11	0.0421	1
11031	123478-HxCDD	39227-28-6	0.0637	JBQ	5.11	0.0389	1
11031	123678-HxCDD	57653-85-7	0.283	JB	5.11	0.0388	1
11031	123789-HxCDD	19408-74-3	0.286	JBQ	5.11	0.0376	1
11031	1234678-HpCDD	35822-46-9	2.19	JB	5.11	0.0307	1
11031	OCDD	3268-87-9	15.6	B	10.2	0.0253	1
11031	2378-TCDF	51207-31-9	0.161	JQ	1.02	0.0539	1
11031	12378-PeCDF	57117-41-6	0.192	JBQ	5.11	0.0272	1
11031	23478-PeCDF	57117-31-4	0.268	JBQ	5.11	0.0241	1
11031	123478-HxCDF	70648-26-9	0.138	JBQ	5.11	0.0251	1
11031	123678-HxCDF	57117-44-9	0.155	JBQ	5.11	0.0251	1
11031	123789-HxCDF	72918-21-9	0.0773	JB	5.11	0.0249	1
11031	234678-HxCDF	60851-34-5	0.163	JBQ	5.11	0.0230	1
11031	1234678-HpCDF	67562-39-4	0.625	JB	5.11	0.0286	1
11031	1234789-HpCDF	55673-89-7	0.0807	JBQ	5.11	0.0322	1
11031	OCDF	39001-02-0	1.10	JB	10.2	0.0339	1
D/F Toxic Equivalents	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.0692				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	66	25 - 164
13C12-12378-PeCDD	68	25 - 181
13C12-123478-HxCDD	74	32 - 141
13C12-123678-HxCDD	75	28 - 130
13C12-123789-HxCDD	75	28 - 130
13C12-1234678-HpCDD	74	23 - 140
13C12-OCDD	73	17 - 157
13C12-2378-TCDF	60	24 - 169
13C12-12378-PeCDF	64	24 - 185
13C12-23478-PeCDF	67	21 - 178
13C12-123478-HxCDF	74	26 - 152
13C12-123678-HxCDF	75	26 - 123
13C12-234678-HxCDF	78	28 - 136
13C12-123789-HxCDF	79	29 - 147
13C12-1234678-HpCDF	75	28 - 143
13C12-1234789-HpCDF	76	26 - 138
13C12-OCDF	73	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column

*=This limit was used in the evaluation of the final result

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Lancaster Laboratories
Environmental

Analysis Report

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Sample Description: SL-521-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea STS

LL Sample # SW 7313728
LL Group # 1440980
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/13/2013 09:35 by EL

Submitted: 12/14/2013 10:50
Reported: 01/08/2014 09:12

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

521-- SDG#: PH151-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

Q EMPC - Estimated Maximum Possible Concentration
F Interference is present
S Saturation of detection signal

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-521-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea STS

LL Sample # SW 7313728
LL Group # 1440980
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/13/2013 09:35 by EL

Submitted: 12/14/2013 10:50
Reported: 01/08/2014 09:12

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

521-- SDG#: PH151-02

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13352SLF026	12/31/2013 12:01	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	13352SLF026	12/19/2013 09:00	Anna E Stager	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	133500024A	12/18/2013 09:01	Heather E Williams	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	133500024A	12/17/2013 08:40	Katheryne V Sponheimer	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13355001	12/24/2013 15:52	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13355001	12/21/2013 11:00	Chin F Ly	1
01643	Aluminum	SW-846 6010C	1	133540637001	12/27/2013 04:07	Tara L Snyder	1
06944	Antimony	SW-846 6010C	1	133540637001	12/26/2013 11:12	John W Yanzuk II	1
06935	Arsenic	SW-846 6010C	1	133540637001	12/26/2013 11:12	John W Yanzuk II	1
06946	Barium	SW-846 6010C	1	133540637001	12/26/2013 11:12	John W Yanzuk II	1
06947	Beryllium	SW-846 6010C	1	133540637001	12/26/2013 11:12	John W Yanzuk II	1
07914	Boron	SW-846 6010C	1	133540637001	12/26/2013 11:12	John W Yanzuk II	1
06949	Cadmium	SW-846 6010C	1	133540637001	12/26/2013 11:12	John W Yanzuk II	1
01650	Calcium	SW-846 6010C	1	133540637001	12/27/2013 04:07	Tara L Snyder	1
06951	Chromium	SW-846 6010C	1	133540637001	12/26/2013 11:12	John W Yanzuk II	1
06952	Cobalt	SW-846 6010C	1	133540637001	12/26/2013 11:12	John W Yanzuk II	1
06953	Copper	SW-846 6010C	1	133540637001	12/26/2013 11:12	John W Yanzuk II	1
01654	Iron	SW-846 6010C	1	133540637001	12/27/2013 04:07	Tara L Snyder	1
06955	Lead	SW-846 6010C	1	133540637001	12/26/2013 11:12	John W Yanzuk II	1
01656	Lithium	SW-846 6010C	1	133540637001	12/26/2013 11:12	John W Yanzuk II	1
01657	Magnesium	SW-846 6010C	1	133540637001	12/27/2013 04:07	Tara L Snyder	1
06958	Manganese	SW-846 6010C	1	133540637001	12/26/2013 11:12	John W Yanzuk II	1
06960	Molybdenum	SW-846 6010C	1	133540637001	12/26/2013 11:12	John W Yanzuk II	1
06961	Nickel	SW-846 6010C	1	133540637001	12/26/2013 11:12	John W Yanzuk II	1
10145	Phosphorus	SW-846 6010C	1	133540637001	12/26/2013 11:12	John W Yanzuk II	1
01662	Potassium	SW-846 6010C	1	133540637001	12/26/2013 11:12	John W Yanzuk II	1
01667	Sodium	SW-846 6010C	1	133540637001	12/26/2013 11:12	John W Yanzuk II	1
06969	Tin	SW-846 6010C	1	133540637001	12/26/2013 11:12	John W Yanzuk II	1
06970	Titanium	SW-846 6010C	1	133540637001	12/26/2013 11:12	John W Yanzuk II	1
06971	Vanadium	SW-846 6010C	1	133540637001	12/26/2013 11:12	John W Yanzuk II	1
06972	Zinc	SW-846 6010C	1	133540637001	12/26/2013 11:12	John W Yanzuk II	1
10146	Zirconium	SW-846 6010C	1	133540637001	12/26/2013 11:12	John W Yanzuk II	1
06141	Selenium	SW-846 6020A	1	133540637001B	01/04/2014 00:38	John P Hook	2
06142	Silver	SW-846 6020A	1	133540637001A	01/04/2014 00:38	John P Hook	2
06144	Strontium	SW-846 6020A	1	133540637001A	01/07/2014 21:21	John P Hook	5
06145	Thallium	SW-846 6020A	1	133540637001A	01/04/2014 00:38	John P Hook	2
00159	3a Mercury 7471A	SW-846 7471B	1	133540638001	12/23/2013 10:08	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	133540637001	12/22/2013 08:29	James L Mertz	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-521-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea STS

LL Sample # SW 7313728
LL Group # 1440980
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/13/2013 09:35 by EL

Submitted: 12/14/2013 10:50
Reported: 01/08/2014 09:12

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

521-- SDG#: PH151-02

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	133540638001	12/22/2013 10:33	James L Mertz	1
00394	15a pH by 9045D	SW-846 9045D modified	1	13349039401A	12/15/2013 04:40	Daniel S Smith	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13354162401A	12/20/2013 23:00	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-557-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea STS

LL Sample # SW 7313729
LL Group # 1440980
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/13/2013 10:55 by EL

Submitted: 12/14/2013 10:50
Reported: 01/08/2014 09:12

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

557-- SDG#: PH151-03*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs	**SW-846 8082A**		ug/kg		ug/kg	ug/kg	
13099	Aroclor 5432	63496-31-1	34	U	34	10	1
13099	Aroclor 5442	12642-23-8	34	U	34	10	1
13099	Aroclor 5460	11126-42-4	34	U	34	10	1
13099	PCB-1016	12674-11-2	18	U	18	3.4	1
13099	PCB-1221	11104-28-2	18	U	18	5.3	1
13099	PCB-1232	11141-16-5	18	U	18	4.3	1
13099	PCB-1242	53469-21-9	18	U	18	4.3	1
13099	PCB-1248	12672-29-6	18	U	18	3.4	1
13099	PCB-1254	11097-69-1	18	U	18	4.6	1
13099	PCB-1260	11096-82-5	18	U	18	4.0	1
13099	PCB-1262	37324-23-5	18	U	18	3.4	1
13099	PCB-1268	11100-14-4	18	U	18	3.4	1
Wet Chemistry	**EPA 160.3 modified**		%		%	%	
11624	14a Moisture Content by 160.3	n.a.	3.6		0.10	0.10	1

Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
13099	19a PCBs and PCTs 8082A	SW-846 8082A	1	133540023A	12/24/2013 03:39	Monica M Souders	1
13100	PCB/PCT Solids Update IV Ext.	SW-846 3546	1	133540023A	12/21/2013 11:25	Sally L Appleyard	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13354162401A	12/20/2013 23:00	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1440980
Reported: 01/08/14 at 09:12 AM

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 13352SLF026	Sample number(s): 7313727-7313728									
Acenaphthene	1.7	U	1.7	0.67	ug/kg	94		77-116		
Acenaphthylene	1.7	U	1.7	0.33	ug/kg	96		78-120		
Anthracene	1.7	U	1.7	0.33	ug/kg	97		80-116		
Benzo(a)anthracene	1.7	U	1.7	0.67	ug/kg	107		83-119		
Benzo(a)pyrene	1.7	U	1.7	0.67	ug/kg	104		80-122		
Benzo(b)fluoranthene	1.7	U	1.7	0.67	ug/kg	114		82-135		
Benzo(e)pyrene	17	U	17.	3.3	ug/kg	97		81-110		
Benzo(g,h,i)perylene	1.7	U	1.7	0.67	ug/kg	103		79-121		
Benzo(k)fluoranthene	1.7	U	1.7	0.67	ug/kg	105		79-123		
Butylbenzylphthalate	18	U	18.	6.0	ug/kg	104		77-123		
Di-n-butylphthalate	18	U	18.	6.0	ug/kg	95		78-125		
Chrysene	1.7	U	1.7	0.33	ug/kg	107		84-113		
Dibenz(a,h)anthracene	1.7	U	1.7	0.67	ug/kg	98		78-124		
Diethylphthalate	18	U	18.	6.0	ug/kg	99		77-130		
Dimethylphthalate	18	U	18.	6.0	ug/kg	101		85-122		
Bis(2-Ethylhexyl)phthalate	18	U	18.	6.0	ug/kg	100		79-121		
Fluoranthene	1.7	U	1.7	0.67	ug/kg	100		85-116		
Fluorene	1.7	U	1.7	0.67	ug/kg	101		81-126		
Indeno(1,2,3-cd)pyrene	1.7	U	1.7	0.67	ug/kg	102		77-124		
1-Methylnaphthalene	1.7	U	1.7	0.67	ug/kg	108		78-119		
2-Methylnaphthalene	1.7	U	1.7	0.67	ug/kg	108		78-121		
Naphthalene	1.7	U	1.7	0.67	ug/kg	99		79-113		
N-Nitrosodimethylamine	1.7	U	1.7	0.67	ug/kg	95		71-124		
Di-n-octylphthalate	18	U	18.	6.0	ug/kg	108		76-131		
Phenanthrene	1.7	U	1.7	0.67	ug/kg	96		72-110		
Pyrene	1.7	U	1.7	0.67	ug/kg	108		79-112		
Batch number: 133540023A	Sample number(s): 7313729									
Aroclor 5432	33	U	33.	10	ug/kg					
Aroclor 5442	33	U	33.	10	ug/kg	76	69	36-106	9	30
Aroclor 5460	33	U	33.	10	ug/kg					
PCB-1016	17	U	17.	3.3	ug/kg	93		82-116		
PCB-1221	17	U	17.	5.1	ug/kg					
PCB-1232	17	U	17.	4.1	ug/kg					
PCB-1242	17	U	17.	4.1	ug/kg					
PCB-1248	17	U	17.	3.3	ug/kg					
PCB-1254	17	U	17.	4.4	ug/kg					
PCB-1260	17	U	17.	3.9	ug/kg	98		84-125		
PCB-1262	17	U	17.	3.3	ug/kg					
PCB-1268	17	U	17.	3.3	ug/kg					
Batch number: 133500024A	Sample number(s): 7313727-7313728									
EFH (C12-C14)	5.0	U	5.0	2.0	mg/kg	92		76-115		

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1440980
Reported: 01/08/14 at 09:12 AM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
EFH (C15-C20)	5.0	U	5.0	2.0	mg/kg	95		78-127		
EFH (C21-C30)	5.0	U	5.0	2.0	mg/kg	95		77-127		
EFH (C30-C40)	10	U	10.	4.0	mg/kg	87		44-134		
EFH (C8-C11)	5.0	U	5.0	2.0	mg/kg	75		60-115		
Batch number: 133540637001	Sample number(s): 7313727-7313728									
Aluminum	40.0	U	40.0	7.21	mg/kg	108		80-120		
Antimony	4.00	U	4.00	0.740	mg/kg	107		80-120		
Arsenic	4.00	U	4.00	0.700	mg/kg	106		80-120		
Barium	1.00	U	1.00	0.0330	mg/kg	104		80-120		
Beryllium	1.00	U	1.00	0.0670	mg/kg	102		80-120		
Boron	10.0	U	10.0	0.840	mg/kg	100		80-120		
Cadmium	1.00	U	1.00	0.0760	mg/kg	106		80-120		
Calcium	14.3	J	20.0	3.34	mg/kg	106		80-120		
Chromium	3.00	U	3.00	0.160	mg/kg	103		80-120		
Cobalt	1.00	U	1.00	0.0990	mg/kg	107		80-120		
Copper	2.00	U	2.00	0.290	mg/kg	104		80-120		
Iron	40.0	U	40.0	3.62	mg/kg	104		80-120		
Lead	3.00	U	3.00	0.500	mg/kg	112		80-120		
Lithium	4.0	U	4.0	0.34	mg/kg	101		80-120		
Magnesium	10.0	U	10.0	1.67	mg/kg	103		80-120		
Manganese	1.00	U	1.00	0.0830	mg/kg	104		80-120		
Molybdenum	2.00	U	2.00	0.170	mg/kg	104		80-120		
Nickel	2.00	U	2.00	0.130	mg/kg	110		80-120		
Phosphorus	10.0	U	10.0	2.89	mg/kg	106		80-120		
Potassium	100 U		100.	8.34	mg/kg	95		80-120		
Sodium	100 U		100.	16.7	mg/kg	95		80-120		
Tin	1.62	J	10.0	0.220	mg/kg	103		80-120		
Titanium	1.00	U	1.00	0.170	mg/kg	105		80-120		
Vanadium	1.00	U	1.00	0.130	mg/kg	100		80-120		
Zinc	0.768	J	4.00	0.200	mg/kg	106		80-120		
Zirconium	5.00	U	5.00	0.840	mg/kg	100		80-120		
Batch number: 133540637001A	Sample number(s): 7313727-7313728									
Silver	0.200	U	0.200	0.0260	mg/kg	111		80-120		
Strontium	0.111	J	0.400	0.0680	mg/kg	115		80-120		
Thallium	0.200	U	0.200	0.0300	mg/kg	112		80-120		
Batch number: 133540637001B	Sample number(s): 7313727-7313728									
Selenium	0.400	U	0.400	0.100	mg/kg	118		80-120		
Batch number: 133540638001	Sample number(s): 7313727-7313728									
3a Mercury 7471A	0.0167	U	0.0167	0.0100	mg/kg	100		85-120		
Batch number: 13349039401A	Sample number(s): 7313727-7313728									
15a pH by 9045D						99		90-110		
Batch number: 13354162401A	Sample number(s): 7313727-7313729									
14a Moisture Content by 160.3						100		80-120		

Analysis Name	Blank Result		Blank MRL**	Blank EDL	Report Units	OPR %REC	OPRD %REC	OPR/OPRD Limits	RPD	RPD Max

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1440980
Reported: 01/08/14 at 09:12 AM

Analysis Name	Blank Result		Blank MRL**	Blank EDL	Report Units	OPR %REC	OPRD %REC	OPR/OPRD Limits	RPD	RPD Max
Batch number: 13355001	Sample number(s): 7313727-7313728									
2378-TCDD	1.00	U	1.00	0.0563	ng/kg	100		67-158		
12378-PeCDD	0.112	J	5.00	0.0345	ng/kg	103		70-142		
123478-HxCDD	0.0633	J	5.00	0.0237	ng/kg	105		70-164		
123678-HxCDD	0.0646	J	5.00	0.0259	ng/kg	106		76-134		
123789-HxCDD	0.0480	J	5.00	0.0231	ng/kg	104		64-162		
1234678-HpCDD	0.0769	J	5.00	0.0264	ng/kg	102		70-140		
OCDD	0.301	J	10.0	0.0207	ng/kg	105		78-144		
2378-TCDF	1.00	U	1.00	0.0391	ng/kg	108		75-158		
12378-PeCDF	0.0691	J	5.00	0.0202	ng/kg	106		80-134		
23478-PeCDF	0.0714	J	5.00	0.0188	ng/kg	107		68-160		
123478-HxCDF	0.0490	J	5.00	0.0166	ng/kg	110		72-134		
123678-HxCDF	0.0663	J	5.00	0.0165	ng/kg	113		84-130		
123789-HxCDF	0.0985	J	5.00	0.0174	ng/kg	122		78-130		
234678-HxCDF	0.0478	J	5.00	0.0161	ng/kg	112		70-156		
1234678-HpCDF	0.105	J	5.00	0.0107	ng/kg	113		82-122		
1234789-HpCDF	0.0601	J	5.00	0.0129	ng/kg	109		78-138		
OCDF	0.141	J	10.0	0.0321	ng/kg	108		63-170		
TEQ WHO 2005 - EDLx0.0	0.0438				ng/kg					

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 13352SLF026	Sample number(s): 7313727-7313728 UNSPK: P312454								
Acenaphthene	75	75	48-127	0	30				
Acenaphthylene	74	74	49-121	1	30				
Anthracene	76	79	52-126	4	30				
Benzo(a)anthracene	82	86	44-143	4	30				
Benzo(a)pyrene	83	86	44-140	4	30				
Benzo(b)fluoranthene	102	106	26-142	3	30				
Benzo(e)pyrene	80	86	70-130	7	30				
Benzo(g,h,i)perylene	39	40	33-141	3	30				
Benzo(k)fluoranthene	94	104	54-142	10	30				
Butylbenzylphthalate	100	111	49-151	11	30				
Di-n-butylphthalate	76	82	52-147	8	30				
Chrysene	84	86	29-148	3	30				
Dibenz(a,h)anthracene	49	50	20-137	2	30				
Diethylphthalate	71	69	43-145	2	30				
Dimethylphthalate	91	90	58-129	1	30				
Bis(2-Ethylhexyl)phthalate	95	87	39-167	6	30				
Fluoranthene	76	80	40-148	4	30				
Fluorene	75	68	51-137	10	30				
Indeno(1,2,3-cd)pyrene	50	51	17-136	1	30				
1-Methylnaphthalene	89	88	50-131	1	30				
2-Methylnaphthalene	90	87	35-152	3	30				

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1440980
Reported: 01/08/14 at 09:12 AM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Naphthalene	82	77	31-148	5	30				
N-Nitrosodimethylamine	87	84	48-113	3	30				
Di-n-octylphthalate	147	167*	52-162	12	30				
Phenanthrene	78	80	29-142	2	30				
Pyrene	90	97	26-143	8	30				
Batch number: 133540023A	Sample number(s): 7313729 UNSPK: 7313729								
PCB-1016	70	84	41-135	18	50				
PCB-1260	73	89	40-134	20	50				
Batch number: 133500024A	Sample number(s): 7313727-7313728 UNSPK: P307349								
EFH (C12-C14)	101	94	49-123	8	20				
EFH (C15-C20)	75	15*	49-123	40*	20				
EFH (C21-C30)	-40 (2)	-175 (2)	49-123	40*	20				
EFH (C30-C40)	-178 (2)	-294 (2)	49-123	23*	20				
EFH (C8-C11)	79	82	49-123	4	20				
Batch number: 133540637001	Sample number(s): 7313727-7313728 UNSPK: P312462 BKG: P312462								
Aluminum	1159 (2)	1359 (2)	75-125	3	20	9,320	9,610	3	20
Antimony	66*	57*	75-125	16	20	3.85 U	3.92 U	0 (1)	20
Arsenic	105	108	75-125	3	20	2.73 J	2.37 J	14 (1)	20
Barium	98	106	75-125	6	20	62.6	62.4	0	20
Beryllium	102	100	75-125	2	20	0.346 J	0.355 J	2 (1)	20
Boron	93	90	75-125	3	20	8.00 J	7.40 J	8 (1)	20
Cadmium	99	101	75-125	2	20	0.447 J	0.475 J	6 (1)	20
Calcium	133 (2)	97 (2)	75-125	6	20	2,020	2,030	1	20
Chromium	97	101	75-125	3	20	13.3	13.2	1 (1)	20
Cobalt	97	98	75-125	1	20	4.29	4.41	3 (1)	20
Copper	94	93	75-125	1	20	3.66	3.35	9 (1)	20
Iron	600 (2)	1470 (2)	75-125	5	20	16,900	17,400	3	20
Lead	100	98	75-125	2	20	6.61	6.85	4 (1)	20
Lithium	103	103	75-125	0	20	24.5	27.2	10	20
Magnesium	168 (2)	299 (2)	75-125	6	20	3,780	3,870	2	20
Manganese	118 (2)	99 (2)	75-125	3	20	266	277	4	20
Molybdenum	95	95	75-125	1	20	0.316 J	0.209 J	41* (1)	20
Nickel	101	103	75-125	2	20	7.83	8.15	4 (1)	20
Phosphorus	46*	47*	75-125	0	20	371	327	13	20
Potassium	108	125	75-125	4	20	2,670	2,870	7	20
Sodium	94	94	75-125	0	20	51.9 J	56.5 J	9 (1)	20
Tin	92	92	75-125	0	20	2.24 J	2.31 J	3 (1)	20
Titanium	327 (2)	323 (2)	75-125	0	20	839	934	11	20
Vanadium	102	103	75-125	0	20	26.3	26.6	1	20
Zinc	100	108	75-125	4	20	49.7	52.7	6	20
Zirconium	94	95	75-125	1	20	0.844 J	1.05 J	22* (1)	20
Batch number: 133540637001A	Sample number(s): 7313727-7313728 UNSPK: P312462 BKG: P312462								
Silver	103	108	75-125	5	20	0.0410 J	0.0495 J	19 (1)	20
Strontium	98	97	75-125	1	20	9.48	9.43	1	20

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1440980
Reported: 01/08/14 at 09:12 AM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Thallium	117	119	75-125	1	20	0.210	0.260	21* (1)	20
Batch number: 133540637001B	Sample number(s): 7313727-7313728 UNSPK: P312462 BKG: P312462								
Selenium	110	111	75-125	1	20	0.273 J	0.268 J	2 (1)	20
Batch number: 133540638001	Sample number(s): 7313727-7313728 UNSPK: P312462 BKG: P312462								
3a Mercury 7471A	102	99	65-135	2	20	0.0105 J	0.0161 U	200* (1)	20
Batch number: 13349039401A	Sample number(s): 7313727-7313728 BKG: 7313728								
15a pH by 9045D						7.68	7.71	0	3
Batch number: 13354162401A	Sample number(s): 7313727-7313729 BKG: 7313729								
14a Moisture Content by 160.3						3.6	4.8	29*	20

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 7a SVOC SIM EPA 8270D
Batch number: 13352SLF026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
7313727	70	64	81
7313728	79	77	93
Blank	89	92	110
LCS	83	84	102
MS	67	71	91
MSD	70	73	86
Limits:	54-129	59-125	61-125

Analysis Name: 19a PCBs and PCTs 8082A
Batch number: 133540023A

	Tetrachloro-m-xylene	Decachlorobiphenyl
7313729	105	93
Blank	110	97
LCS	101	97
LCSD	109	106
MS	77	69
MSD	95	89
Limits:	45-120	45-120

Analysis Name: 10a TPH by EPA 8015B (DRO)
Batch number: 133500024A

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1440980
Reported: 01/08/14 at 09:12 AM

Surrogate Quality Control

	Chlorobenzene	Orthoterphenyl
7313727	85	87
7313728	84	86
Blank	87	90
LCS	86	91
MS	83	81
MSD	86	89
Limits:	37-125	66-123

Analysis Name: 23a Dioxin/Furan by EPA 1613B
Batch number: 13355001

	13C12-2378-TCDD	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF	13C12-234678-HxCDF	13C12-123789-HxCDF
7313727	73	74	82	81	87	88
7313728	66	67	74	75	78	79
Blank	52	55	68	69	70	73
OPR	29	33	36	36	37	25
Limits:	25-164	21-178	26-152	26-123	28-136	29-147

	13C12-1234678-HpCDF	13C12-1234789-HpCDF	13C12-OCDF	13C12-12378-PeCDD	13C12-123478-HxCDD	13C12-123678-HxCDD
7313727	84	83	80	73	83	81
7313728	75	76	73	68	74	75
Blank	73	72	72	56	70	69
OPR	37	35	34	32	37	37
Limits:	28-143	26-138	17-157	25-181	32-141	28-130

	13C12-123789-HxCDD	13C12-1234678-HpCDD	13C12-OCDD	13C12-2378-TCDF	13C12-12378-PeCDF
7313727	82	82	79	67	71
7313728	75	74	73	60	64
Blank	70	72	73	50	53
OPR	36	37	35	27	30
Limits:	28-130	23-140	17-157	24-169	24-185

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 12/13/2013 A-13013

CarrierName: FedEx G-1440980

AirbillNo: 797401915901 S-7313727-29

Contact Name: Pam Hartman

Contact Phone: (818)466-8007

COC No: 20131213-02

Cooler #: 1

Lab: Lancaster

Lab Phone: 717-556-7259

Lab Address: 2425 New Holland Pike, Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Calc Nitrate, Nitrite, TKN	TOC SM 5310B	Grain Size ASTM 2488-09a	Other Analysis/Notes
SL-505-NBZ-SB-0.0-0.5	12/13/13 13:00	SO	None	2 - SS-Sleeve	10 day	X	X					X		X												X														
SL-505-NBZ-SB-0.0-0.5	12/13/13 13:00	SO	None	1 - 4 oz glass	10 day													X																						
SL-521-NBZ-SB-0.0-0.5	12/13/13 09:35	SO	None	2 - SS-Sleeve	10 day	X	X					X		X												X														
SL-521-NBZ-SB-0.0-0.5	12/13/13 09:35	SO	None	1 - 4 oz glass	10 day													X																						
SL-557-NBZ-SB-0.0-0.5	12/13/13 10:55	SO	None	1 - SS-Sleeve	10 day										X																									

Special Instructions:

Sampler:

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
[illegible]	12/13	2013 1600									
											1050

12/14/13

COC Rev 3

COC: 20131213-02, Page 1 of 1

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G-1440980

Environmental Sample Administration
Receipt Documentation Log

Client/Project: CDM

Date of Receipt: 12/14/13

Time of Receipt: 1050

Source Code: SD-1

Shipping Container Sealed: YES NO

Custody Seal Present * : YES NO

* Custody seal was intact unless otherwise noted in the discrepancy section

Package: Chilled Not Chilled

Temperature of Shipping Containers							
Cooler #	Thermometer ID	Temperature (°C)	Temp Bottle (TB) or Surface Temp (ST)	Wet Ice (WI) or Dry Ice (DI) or Ice Packs (IP)	Ice Present? Y/N	Loose (L) Bagged Ice (B) or NA	Comments
1	DT121	1.0	TB	WI	Y	B	
2	↓	0.7	↓	↓	↓	↓	
3							
4							
5							
6							

Number of Trip Blanks received NOT listed on chain of custody: 0

Paperwork Discrepancy/Unpacking Problems:

Unpacker Signature/Emp#: 2308 **Date/Time:** 12/14/13 1126

Issued by Dept. 6042 Management

2174.06

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Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	**BMQL**	Below Minimum Quantitation Level
N.D.	none detected	**MPN**	Most Probable Number
TNTC	Too Numerous To Count	**CP Units**	cobalt-chloroplatinate units
IU	International Units	**NTU**	nephelometric turbidity units
umhos/cm	micromhos/cm	**ng**	nanogram(s)
C	degrees Celsius	**F**	degrees Fahrenheit
meq	milliequivalents	**lb.**	pound(s)
g	gram(s)	**kg**	kilogram(s)
µg	microgram(s)	**mg**	milligram(s)
mL	milliliter(s)	**L**	liter(s)
m3	cubic meter(s)	**µL**	microliter(s)
		pg/L	picogram/liter

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Data Qualifiers:

C – result confirmed by reanalysis.

J - estimated value – The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	**B**	Value is <CRDL, but ≥IDL
B	Analyte was also detected in the blank	**E**	Estimated due to interference
C	Pesticide result confirmed by GC/MS	**M**	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	**N**	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	**S**	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	**U**	Compound was not detected
P	Concentration difference between primary and confirmation columns >25%	**W**	Post digestion spike out of control limits
U	Compound was not detected	*****	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	**+**	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as “analyze immediately” are not performed within 15 minutes.

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ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

January 09, 2014

Project: SSFL Phase 3 Sampling

Submittal Date: 12/17/2013
Group Number: 1441366
SDG: PH155
PO Number: 1204-002-001-AL
State of Sample Origin: CA

Client Sample Description	Lancaster Labs (LL) #
SL-517-NBZ-SB-0.0-0.5 Soil	7315437
SL-517-NBZ-SB-2.0-3.0 Soil	7315438
SL-518-NBZ-SB-0.0-0.5 Soil	7315439
SL-519-NBZ-SB-0.0-0.5 Soil	7315440
SL-520-NBZ-SB-0.0-0.5 Soil	7315441
TB2-121613 Water	7315442
EB2-121613 Water	7315443

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO Eurofins Lancaster Labs Env Attn: Nicole Maljovec

Respectfully Submitted,

Nicole L. Maljovec
Principal Specialist Group Leader

(717) 556-7259

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Lancaster Laboratories Environmental
2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Analysis Report

Sample Description: SL-517-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7315437
LL Group # 1441366
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/16/2013 13:40 by E

Submitted: 12/17/2013 10:10
Reported: 01/09/2014 08:01

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51700 SDG#: PH155-01

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.68	1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.34	1
12969	Anthracene	120-12-7	1.7	U	1.7	0.34	1
12969	Benzo(a)anthracene	56-55-3	1.7	U	1.7	0.68	1
12969	Benzo(a)pyrene	50-32-8	1.7	U	1.7	0.68	1
12969	Benzo(b)fluoranthene	205-99-2	1.2	J	1.7	0.68	1
12969	Benzo(e)pyrene	192-97-2	17	U	17	3.4	1
12969	Benzo(g,h,i)perylene	191-24-2	1.7	U	1.7	0.68	1
12969	Benzo(k)fluoranthene	207-08-9	1.7	U	1.7	0.68	1
12969	Butylbenzylphthalate	85-68-7	18	U	18	6.2	1
12969	Di-n-butylphthalate	84-74-2	18	U	18	6.2	1
12969	Chrysene	218-01-9	1.6	J	1.7	0.34	1
12969	Dibenz(a,h)anthracene	53-70-3	1.7	U	1.7	0.68	1
12969	Diethylphthalate	84-66-2	18	U	18	6.2	1
12969	Dimethylphthalate	131-11-3	18	U	18	6.2	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	18	U	18	6.2	1
12969	Fluoranthene	206-44-0	1.0	J	1.7	0.68	1
12969	Fluorene	86-73-7	1.7	U	1.7	0.68	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.7	U	1.7	0.68	1
12969	1-Methylnaphthalene	90-12-0	1.7	U	1.7	0.68	1
12969	2-Methylnaphthalene	91-57-6	0.99	J	1.7	0.68	1
12969	Naphthalene	91-20-3	1.8		1.7	0.68	1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.68	1
12969	Di-n-octylphthalate	117-84-0	18	U	18	6.2	1
12969	Phenanthrene	85-01-8	1.3	J	1.7	0.68	1
12969	Pyrene	129-00-0	1.1	J	1.7	0.68	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.2	U	5.2	2.1	1
12952	EFH (C15-C20)	n.a.	2.1	J	5.2	2.1	1
12952	EFH (C21-C30)	n.a.	11		5.2	2.1	1
12952	EFH (C30-C40)	n.a.	31		10	4.2	1
12952	EFH (C8-C11)	n.a.	5.2	U	5.2	2.1	1
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	26,000		41.3	7.44	1
06944	Antimony	7440-36-0	2.22	J	4.13	0.764	1
06935	Arsenic	7440-38-2	10.2		4.13	0.723	1
06946	Barium	7440-39-3	123		1.03	0.0341	1
06947	Beryllium	7440-41-7	1.18		1.03	0.0692	1
07914	Boron	7440-42-8	9.81	J	10.3	0.867	1
06949	Cadmium	7440-43-9	1.03	U	1.03	0.0785	1
01650	Calcium	7440-70-2	5,140		20.6	3.45	1
06951	Chromium	7440-47-3	32.6		3.10	0.165	1
06952	Cobalt	7440-48-4	9.94		1.03	0.102	1
06953	Copper	7440-50-8	25.2		2.06	0.299	1
01654	Iron	7439-89-6	38,300		82.6	7.47	2
06955	Lead	7439-92-1	19.2		3.10	0.516	1
01656	Lithium	7439-93-2	42.1		4.1	0.35	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-517-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7315437
LL Group # 1441366
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/16/2013 13:40 by E

Submitted: 12/17/2013 10:10
Reported: 01/09/2014 08:01

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51700 SDG#: PH155-01

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01657	Magnesium	7439-95-4	8,270		10.3	1.72	1
06958	Manganese	7439-96-5	348		1.03	0.0857	1
06960	Molybdenum	7439-98-7	0.230	J	2.06	0.176	1
06961	Nickel	7440-02-0	21.4		2.06	0.134	1
10145	Phosphorus	7723-14-0	595		10.3	2.98	1
01662	Potassium	7440-09-7	4,530		103	8.61	1
01667	Sodium	7440-23-5	97.6	J	103	17.2	1
06969	Tin	7440-31-5	4.06	J	10.3	0.227	1
06970	Titanium	7440-32-6	1,250		1.03	0.176	1
06971	Vanadium	7440-62-2	64.9		1.03	0.134	1
06972	Zinc	7440-66-6	108		4.13	0.206	1
10146	Zirconium	7440-67-7	4.64	J	5.16	0.867	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.312	J	0.413	0.103	2
06142	Silver	7440-22-4	0.106	J	0.206	0.0268	2
06144	Strontium	7440-24-6	29.9		1.03	0.176	5
06145	Thallium	7440-28-0	0.440		0.206	0.0310	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0196		0.0173	0.0104	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045D	n.a.	6.50		0.0100	0.0100	1
	The pH was measured in water at 18.8 C.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	4.1		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-517-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7315437
LL Group # 1441366
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/16/2013 13:40 by E

Submitted: 12/17/2013 10:10
Reported: 01/09/2014 08:01

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51700 SDG#: PH155-01

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0989	JQ	1.01	0.0432	1
11031	12378-PeCDD	40321-76-4	0.318	JBQ	5.07	0.0330	1
11031	123478-HxCDD	39227-28-6	0.110	JBQ	5.07	0.0287	1
11031	123678-HxCDD	57653-85-7	0.166	JB	5.07	0.0315	1
11031	123789-HxCDD	19408-74-3	0.191	JB	5.07	0.0289	1
11031	1234678-HpCDD	35822-46-9	0.913	JB	5.07	0.0244	1
11031	OCDD	3268-87-9	6.05	JB	10.1	0.0157	1
11031	2378-TCDF	51207-31-9	0.147	J	1.01	0.0398	1
11031	12378-PeCDF	57117-41-6	0.408	JB	5.07	0.0200	1
11031	23478-PeCDF	57117-31-4	0.369	JB	5.07	0.0179	1
11031	123478-HxCDF	70648-26-9	0.222	JBQ	5.07	0.0193	1
11031	123678-HxCDF	57117-44-9	0.199	JB	5.07	0.0190	1
11031	123789-HxCDF	72918-21-9	0.234	JB	5.07	0.0217	1
11031	234678-HxCDF	60851-34-5	0.155	JBQ	5.07	0.0185	1
11031	1234678-HpCDF	67562-39-4	0.310	JB	5.07	0.0158	1
11031	1234789-HpCDF	55673-89-7	0.132	JB	5.07	0.0190	1
11031	OCDF	39001-02-0	0.643	JB	10.1	0.0276	1
D/F Toxic Equivalents	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.232				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	66	25 - 164
13C12-12378-PeCDD	71	25 - 181
13C12-123478-HxCDD	83	32 - 141
13C12-123678-HxCDD	80	28 - 130
13C12-123789-HxCDD	81	28 - 130
13C12-1234678-HpCDD	82	23 - 140
13C12-OCDD	78	17 - 157
13C12-2378-TCDF	65	24 - 169
13C12-12378-PeCDF	69	24 - 185
13C12-23478-PeCDF	71	21 - 178
13C12-123478-HxCDF	82	26 - 152
13C12-123678-HxCDF	82	26 - 123
13C12-234678-HxCDF	86	28 - 136
13C12-123789-HxCDF	82	29 - 147
13C12-1234678-HpCDF	84	28 - 143
13C12-1234789-HpCDF	80	26 - 138
13C12-OCDF	77	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column

*=This limit was used in the evaluation of the final result

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Lancaster Laboratories
Environmental

Analysis Report

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Sample Description: SL-517-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7315437
LL Group # 1441366
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/16/2013 13:40 by E

Submitted: 12/17/2013 10:10
Reported: 01/09/2014 08:01

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51700 SDG#: PH155-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-517-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7315437
LL Group # 1441366
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/16/2013 13:40 by E

Submitted: 12/17/2013 10:10
Reported: 01/09/2014 08:01

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51700 SDG#: PH155-01

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13354SLB026	01/02/2014	09:27	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	13354SLB026	12/23/2013	06:30	Olivia Arosemena	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	133530025A	12/23/2013	12:01	Tracy A Cole	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	133530025A	12/20/2013	09:15	Katheryne V Sponheimer	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13355001	12/25/2013	01:26	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13355001	12/21/2013	11:00	Chin F Ly	1
01643	Aluminum	SW-846 6010C	1	133540637001	12/27/2013	04:11	Tara L Snyder	1
06944	Antimony	SW-846 6010C	1	133540637001	12/26/2013	11:16	John W Yanzuk II	1
06935	Arsenic	SW-846 6010C	1	133540637001	12/26/2013	11:16	John W Yanzuk II	1
06946	Barium	SW-846 6010C	1	133540637001	12/26/2013	11:16	John W Yanzuk II	1
06947	Beryllium	SW-846 6010C	1	133540637001	12/26/2013	11:16	John W Yanzuk II	1
07914	Boron	SW-846 6010C	1	133540637001	12/26/2013	11:16	John W Yanzuk II	1
06949	Cadmium	SW-846 6010C	1	133540637001	12/26/2013	11:16	John W Yanzuk II	1
01650	Calcium	SW-846 6010C	1	133540637001	12/27/2013	04:11	Tara L Snyder	1
06951	Chromium	SW-846 6010C	1	133540637001	12/26/2013	11:16	John W Yanzuk II	1
06952	Cobalt	SW-846 6010C	1	133540637001	12/26/2013	11:16	John W Yanzuk II	1
06953	Copper	SW-846 6010C	1	133540637001	12/26/2013	11:16	John W Yanzuk II	1
01654	Iron	SW-846 6010C	1	133540637001	12/27/2013	04:15	Tara L Snyder	2
06955	Lead	SW-846 6010C	1	133540637001	12/26/2013	11:16	John W Yanzuk II	1
01656	Lithium	SW-846 6010C	1	133540637001	12/26/2013	11:16	John W Yanzuk II	1
01657	Magnesium	SW-846 6010C	1	133540637001	12/27/2013	04:11	Tara L Snyder	1
06958	Manganese	SW-846 6010C	1	133540637001	12/26/2013	11:16	John W Yanzuk II	1
06960	Molybdenum	SW-846 6010C	1	133540637001	12/26/2013	11:16	John W Yanzuk II	1
06961	Nickel	SW-846 6010C	1	133540637001	12/26/2013	11:16	John W Yanzuk II	1
10145	Phosphorus	SW-846 6010C	1	133540637001	12/26/2013	11:16	John W Yanzuk II	1
01662	Potassium	SW-846 6010C	1	133540637001	12/26/2013	11:16	John W Yanzuk II	1
01667	Sodium	SW-846 6010C	1	133540637001	12/26/2013	11:16	John W Yanzuk II	1
06969	Tin	SW-846 6010C	1	133540637001	12/26/2013	11:16	John W Yanzuk II	1
06970	Titanium	SW-846 6010C	1	133540637001	12/26/2013	11:16	John W Yanzuk II	1
06971	Vanadium	SW-846 6010C	1	133540637001	12/26/2013	11:16	John W Yanzuk II	1
06972	Zinc	SW-846 6010C	1	133540637001	12/26/2013	11:16	John W Yanzuk II	1
10146	Zirconium	SW-846 6010C	1	133540637001	12/26/2013	11:16	John W Yanzuk II	1
06141	Selenium	SW-846 6020A	1	133540637001B	01/04/2014	00:40	John P Hook	2
06142	Silver	SW-846 6020A	1	133540637001A	01/04/2014	00:40	John P Hook	2
06144	Strontium	SW-846 6020A	1	133540637001A	01/07/2014	21:23	John P Hook	5
06145	Thallium	SW-846 6020A	1	133540637001A	01/04/2014	00:40	John P Hook	2
00159	3a Mercury 7471A	SW-846 7471B	1	133540638001	12/23/2013	10:14	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	133540637001	12/22/2013	08:29	James L Mertz	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-517-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7315437
LL Group # 1441366
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/16/2013 13:40 by E

Submitted: 12/17/2013 10:10
Reported: 01/09/2014 08:01

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51700 SDG#: PH155-01

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	133540638001	12/22/2013 10:33	James L Mertz	1
00394	15a pH by 9045D	SW-846 9045D modified	1	13351039402B	12/17/2013 11:00	Carolyn M Mastropietro	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13354162401B	12/20/2013 23:00	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-517-NBZ-SB-2.0-3.0 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7315438
LL Group # 1441366
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/16/2013 14:20 by E

Submitted: 12/17/2013 10:10
Reported: 01/09/2014 08:01

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51720 SDG#: PH155-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.70	1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.35	1
12969	Anthracene	120-12-7	1.7	U	1.7	0.35	1
12969	Benzo(a)anthracene	56-55-3	1.7	U	1.7	0.70	1
12969	Benzo(a)pyrene	50-32-8	1.7	U	1.7	0.70	1
12969	Benzo(b)fluoranthene	205-99-2	1.7	U	1.7	0.70	1
12969	Benzo(e)pyrene	192-97-2	18	U	18	3.5	1
12969	Benzo(g,h,i)perylene	191-24-2	1.7	U	1.7	0.70	1
12969	Benzo(k)fluoranthene	207-08-9	1.7	U	1.7	0.70	1
12969	Butylbenzylphthalate	85-68-7	19	U	19	6.3	1
12969	Di-n-butylphthalate	84-74-2	19	U	19	6.3	1
12969	Chrysene	218-01-9	0.44	J	1.7	0.35	1
12969	Dibenz(a,h)anthracene	53-70-3	1.7	U	1.7	0.70	1
12969	Diethylphthalate	84-66-2	19	U	19	6.3	1
12969	Dimethylphthalate	131-11-3	19	U	19	6.3	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	19	U	19	6.3	1
12969	Fluoranthene	206-44-0	1.7	U	1.7	0.70	1
12969	Fluorene	86-73-7	1.7	U	1.7	0.70	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.7	U	1.7	0.70	1
12969	1-Methylnaphthalene	90-12-0	1.7	U	1.7	0.70	1
12969	2-Methylnaphthalene	91-57-6	1.7	U	1.7	0.70	1
12969	Naphthalene	91-20-3	1.7	U	1.7	0.70	1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.70	1
12969	Di-n-octylphthalate	117-84-0	19	U	19	6.3	1
12969	Phenanthrene	85-01-8	1.7	U	1.7	0.70	1
12969	Pyrene	129-00-0	1.7	U	1.7	0.70	1
GC Volatiles	**TPH GRO SW-846 8015B mod**		**mg/kg**		**mg/kg**	**mg/kg**	
05551	11a TPH by EPA 8015B GRO	n.a.	1.0	U	1.0	0.2	23.9
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.3	U	5.3	2.1	1
12952	EFH (C15-C20)	n.a.	5.3	U	5.3	2.1	1
12952	EFH (C21-C30)	n.a.	5.0	J	5.3	2.1	1
12952	EFH (C30-C40)	n.a.	9.3	J	11	4.2	1
12952	EFH (C8-C11)	n.a.	5.3	U	5.3	2.1	1
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	23,100		42.3	7.62	1
06944	Antimony	7440-36-0	2.25	J	4.23	0.782	1
06935	Arsenic	7440-38-2	9.97		4.23	0.740	1
06946	Barium	7440-39-3	112		1.06	0.0349	1
06947	Beryllium	7440-41-7	1.17		1.06	0.0708	1
07914	Boron	7440-42-8	7.71	J	10.6	0.888	1
06949	Cadmium	7440-43-9	1.06	U	1.06	0.0803	1
01650	Calcium	7440-70-2	4,070		21.1	3.53	1
06951	Chromium	7440-47-3	30.0		3.17	0.169	1

*=This limit was used in the evaluation of the final result

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Lancaster Laboratories Environmental
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Analysis Report

Sample Description: SL-517-NBZ-SB-2.0-3.0 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7315438
LL Group # 1441366
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/16/2013 14:20 by E

Submitted: 12/17/2013 10:10
Reported: 01/09/2014 08:01

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51720 SDG#: PH155-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
06952	Cobalt	7440-48-4	11.3		1.06	0.105	1
06953	Copper	7440-50-8	24.2		2.11	0.306	1
01654	Iron	7439-89-6	36,700		84.5	7.65	2
06955	Lead	7439-92-1	18.1		3.17	0.528	1
01656	Lithium	7439-93-2	41.3		4.2	0.36	1
01657	Magnesium	7439-95-4	7,910		10.6	1.76	1
06958	Manganese	7439-96-5	372		1.06	0.0877	1
06960	Molybdenum	7439-98-7	2.11	U	2.11	0.180	1
06961	Nickel	7440-02-0	21.5		2.11	0.137	1
10145	Phosphorus	7723-14-0	500		10.6	3.05	1
01662	Potassium	7440-09-7	3,490		106	8.81	1
01667	Sodium	7440-23-5	131		106	17.6	1
06969	Tin	7440-31-5	3.79	J	10.6	0.232	1
06970	Titanium	7440-32-6	1,030		1.06	0.180	1
06971	Vanadium	7440-62-2	56.3		1.06	0.137	1
06972	Zinc	7440-66-6	103		4.23	0.211	1
10146	Zirconium	7440-67-7	4.14	J	5.28	0.888	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.305	J	0.423	0.106	2
06142	Silver	7440-22-4	0.0914	J	0.211	0.0275	2
06144	Strontium	7440-24-6	22.0		1.06	0.180	5
06145	Thallium	7440-28-0	0.429		0.211	0.0317	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0144	J	0.0168	0.0101	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045D	n.a.	6.91		0.0100	0.0100	1
	The pH was measured in water at 18.6 C.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	6.3		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

*=This limit was used in the evaluation of the final result

eurofins
Lancaster Laboratories Environmental
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Analysis Report

Sample Description: SL-517-NBZ-SB-2.0-3.0 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7315438
LL Group # 1441366
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/16/2013 14:20 by E

Submitted: 12/17/2013 10:10
Reported: 01/09/2014 08:01

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51720 SDG#: PH155-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0455 JQ	1.06	0.0415	1
11031	12378-PeCDD	40321-76-4	0.0440 JB	5.28	0.0257	1
11031	123478-HxCDD	39227-28-6	0.0457 JBQ	5.28	0.0207	1
11031	123678-HxCDD	57653-85-7	0.0364 JB	5.28	0.0217	1
11031	123789-HxCDD	19408-74-3	0.0539 JBQ	5.28	0.0199	1
11031	1234678-HpCDD	35822-46-9	0.0841 JBQ	5.28	0.0178	1
11031	OCDD	3268-87-9	0.516 JB	10.6	0.0185	1
11031	2378-TCDF	51207-31-9	0.0363 JQ	1.06	0.0289	1
11031	12378-PeCDF	57117-41-6	0.0726 JBQ	5.28	0.0145	1
11031	23478-PeCDF	57117-31-4	0.0428 JB	5.28	0.0136	1
11031	123478-HxCDF	70648-26-9	0.0513 JBQ	5.28	0.0129	1
11031	123678-HxCDF	57117-44-9	0.0436 JBQ	5.28	0.0128	1
11031	123789-HxCDF	72918-21-9	0.0587 JBQ	5.28	0.0126	1
11031	234678-HxCDF	60851-34-5	0.0254 JBQ	5.28	0.0118	1
11031	1234678-HpCDF	67562-39-4	0.0717 JBQ	5.28	0.00971	1
11031	1234789-HpCDF	55673-89-7	0.0429 JB	5.28	0.0111	1
11031	OCDF	39001-02-0	0.146 JBQ	10.6	0.0236	1
D/F Toxic Equivalents	**EPA 1613B**		ng/kg	ng/kg	ng/kg	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.0610			1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	70	25 - 164
13C12-12378-PeCDD	71	25 - 181
13C12-123478-HxCDD	84	32 - 141
13C12-123678-HxCDD	87	28 - 130
13C12-123789-HxCDD	86	28 - 130
13C12-1234678-HpCDD	88	23 - 140
13C12-OCDD	83	17 - 157
13C12-2378-TCDF	69	24 - 169
13C12-12378-PeCDF	70	24 - 185
13C12-23478-PeCDF	72	21 - 178
13C12-123478-HxCDF	83	26 - 152
13C12-123678-HxCDF	84	26 - 123
13C12-234678-HxCDF	86	28 - 136
13C12-123789-HxCDF	92	29 - 147
13C12-1234678-HpCDF	88	28 - 143
13C12-1234789-HpCDF	89	26 - 138
13C12-OCDF	83	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column

*=This limit was used in the evaluation of the final result

Sample Description: SL-517-NBZ-SB-2.0-3.0 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7315438
LL Group # 1441366
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/16/2013 14:20 by E

Submitted: 12/17/2013 10:10
Reported: 01/09/2014 08:01

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51720 SDG#: PH155-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-517-NBZ-SB-2.0-3.0 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7315438
LL Group # 1441366
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/16/2013 14:20 by E

Submitted: 12/17/2013 10:10
Reported: 01/09/2014 08:01

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51720 SDG#: PH155-02

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13354SLB026	01/02/2014	10:00	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	13354SLB026	12/23/2013	06:30	Olivia Arosemena	1
05551	11a TPH by EPA 8015B GRO	TPH GRO SW-846 8015B mod	1	13347A16B	12/27/2013	17:15	Marie D Beamenderfer	23.9
06130	GC - 5 g HL Encore Prep	SW-846 5035A	1	201335133463	12/17/2013	16:10	Larry E Bevins	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035A	2	201335133463	12/17/2013	16:10	Larry E Bevins	n.a.
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	133530025A	12/23/2013	12:22	Tracy A Cole	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	133530025A	12/20/2013	09:15	Katheryne V Sponheimer	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13355001	12/25/2013	02:22	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13355001	12/21/2013	11:00	Chin F Ly	1
01643	Aluminum	SW-846 6010C	1	133540637001	12/27/2013	04:18	Tara L Snyder	1
06944	Antimony	SW-846 6010C	1	133540637001	12/26/2013	11:19	John W Yanzuk II	1
06935	Arsenic	SW-846 6010C	1	133540637001	12/26/2013	11:19	John W Yanzuk II	1
06946	Barium	SW-846 6010C	1	133540637001	12/26/2013	11:19	John W Yanzuk II	1
06947	Beryllium	SW-846 6010C	1	133540637001	12/26/2013	11:19	John W Yanzuk II	1
07914	Boron	SW-846 6010C	1	133540637001	12/26/2013	11:19	John W Yanzuk II	1
06949	Cadmium	SW-846 6010C	1	133540637001	12/26/2013	11:19	John W Yanzuk II	1
01650	Calcium	SW-846 6010C	1	133540637001	12/27/2013	04:18	Tara L Snyder	1
06951	Chromium	SW-846 6010C	1	133540637001	12/26/2013	11:19	John W Yanzuk II	1
06952	Cobalt	SW-846 6010C	1	133540637001	12/26/2013	11:19	John W Yanzuk II	1
06953	Copper	SW-846 6010C	1	133540637001	12/26/2013	11:19	John W Yanzuk II	1
01654	Iron	SW-846 6010C	1	133540637001	12/27/2013	04:22	Tara L Snyder	2
06955	Lead	SW-846 6010C	1	133540637001	12/26/2013	11:19	John W Yanzuk II	1
01656	Lithium	SW-846 6010C	1	133540637001	12/26/2013	11:19	John W Yanzuk II	1
01657	Magnesium	SW-846 6010C	1	133540637001	12/27/2013	04:18	Tara L Snyder	1
06958	Manganese	SW-846 6010C	1	133540637001	12/26/2013	11:19	John W Yanzuk II	1
06960	Molybdenum	SW-846 6010C	1	133540637001	12/26/2013	11:19	John W Yanzuk II	1
06961	Nickel	SW-846 6010C	1	133540637001	12/26/2013	11:19	John W Yanzuk II	1
10145	Phosphorus	SW-846 6010C	1	133540637001	12/26/2013	11:19	John W Yanzuk II	1
01662	Potassium	SW-846 6010C	1	133540637001	12/26/2013	11:19	John W Yanzuk II	1
01667	Sodium	SW-846 6010C	1	133540637001	12/26/2013	11:19	John W Yanzuk II	1
06969	Tin	SW-846 6010C	1	133540637001	12/26/2013	11:19	John W Yanzuk II	1
06970	Titanium	SW-846 6010C	1	133540637001	12/26/2013	11:19	John W Yanzuk II	1
06971	Vanadium	SW-846 6010C	1	133540637001	12/26/2013	11:19	John W Yanzuk II	1
06972	Zinc	SW-846 6010C	1	133540637001	12/26/2013	11:19	John W Yanzuk II	1
10146	Zirconium	SW-846 6010C	1	133540637001	12/26/2013	11:19	John W Yanzuk II	1
06141	Selenium	SW-846 6020A	1	133540637001B	01/04/2014	00:43	John P Hook	2
06142	Silver	SW-846 6020A	1	133540637001A	01/04/2014	00:43	John P Hook	2
06144	Strontium	SW-846 6020A	1	133540637001A	01/07/2014	21:24	John P Hook	5

*=This limit was used in the evaluation of the final result

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Analysis Report

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Sample Description: SL-517-NBZ-SB-2.0-3.0 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7315438
LL Group # 1441366
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/16/2013 14:20 by E

Submitted: 12/17/2013 10:10
Reported: 01/09/2014 08:01

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

51720 SDG#: PH155-02

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06145	Thallium	SW-846 6020A	1	133540637001A	01/04/2014 00:43	John P Hook	2
00159	3a Mercury 7471A	SW-846 7471B	1	133540638001	12/23/2013 10:16	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	133540637001	12/22/2013 08:29	James L Mertz	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	133540638001	12/22/2013 10:33	James L Mertz	1
00394	15a pH by 9045D	SW-846 9045D modified	1	13351039402B	12/17/2013 11:00	Carolyn M Mastropietro	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13354162401B	12/20/2013 23:00	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-518-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7315439
LL Group # 1441366
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/16/2013 11:25 by E

Submitted: 12/17/2013 10:10
Reported: 01/09/2014 08:01

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

-518- SDG#: PH155-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.68	1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.34	1
12969	Anthracene	120-12-7	1.7	U	1.7	0.34	1
12969	Benzo(a)anthracene	56-55-3	1.7	U	1.7	0.68	1
12969	Benzo(a)pyrene	50-32-8	1.7	U	1.7	0.68	1
12969	Benzo(b)fluoranthene	205-99-2	1.3	J	1.7	0.68	1
12969	Benzo(e)pyrene	192-97-2	17	U	17	3.4	1
12969	Benzo(g,h,i)perylene	191-24-2	1.7	U	1.7	0.68	1
12969	Benzo(k)fluoranthene	207-08-9	1.7	U	1.7	0.68	1
12969	Butylbenzylphthalate	85-68-7	13	J	18	6.1	1
12969	Di-n-butylphthalate	84-74-2	18	U	18	6.1	1
12969	Chrysene	218-01-9	1.0	J	1.7	0.34	1
12969	Dibenz(a,h)anthracene	53-70-3	1.7	U	1.7	0.68	1
12969	Diethylphthalate	84-66-2	18	U	18	6.1	1
12969	Dimethylphthalate	131-11-3	18	U	18	6.1	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	18	U	18	6.1	1
12969	Fluoranthene	206-44-0	1.7	U	1.7	0.68	1
12969	Fluorene	86-73-7	1.7	U	1.7	0.68	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.7	U	1.7	0.68	1
12969	1-Methylnaphthalene	90-12-0	1.7	U	1.7	0.68	1
12969	2-Methylnaphthalene	91-57-6	1.7	U	1.7	0.68	1
12969	Naphthalene	91-20-3	1.7	U	1.7	0.68	1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.68	1
12969	Di-n-octylphthalate	117-84-0	18	U	18	6.1	1
12969	Phenanthrene	85-01-8	1.7	U	1.7	0.68	1
12969	Pyrene	129-00-0	1.7	U	1.7	0.68	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	26	U	26	10	5
12952	EFH (C15-C20)	n.a.	26	U	26	10	5
12952	EFH (C21-C30)	n.a.	59		26	10	5
12952	EFH (C30-C40)	n.a.	110		52	21	5
12952	EFH (C8-C11)	n.a.	14	J	26	10	5
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	14,700		40.2	7.25	1
06944	Antimony	7440-36-0	1.73	J	4.02	0.745	1
06935	Arsenic	7440-38-2	6.49		4.02	0.704	1
06946	Barium	7440-39-3	77.7		1.01	0.0332	1
06947	Beryllium	7440-41-7	0.675	J	1.01	0.0674	1
07914	Boron	7440-42-8	6.14	J	10.1	0.845	1
06949	Cadmium	7440-43-9	1.01	U	1.01	0.0765	1
01650	Calcium	7440-70-2	3,730		20.1	3.36	1
06951	Chromium	7440-47-3	20.2		3.02	0.161	1
06952	Cobalt	7440-48-4	7.03		1.01	0.0996	1
06953	Copper	7440-50-8	14.8		2.01	0.292	1
01654	Iron	7439-89-6	24,200		40.2	3.64	1
06955	Lead	7439-92-1	13.3		3.02	0.503	1
01656	Lithium	7439-93-2	23.8		4.0	0.34	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-518-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7315439
LL Group # 1441366
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/16/2013 11:25 by E

Submitted: 12/17/2013 10:10
Reported: 01/09/2014 08:01

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

-518- SDG#: PH155-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01657	Magnesium	7439-95-4	5,520		10.1	1.68	1
06958	Manganese	7439-96-5	293		1.01	0.0835	1
06960	Molybdenum	7439-98-7	0.256	J	2.01	0.171	1
06961	Nickel	7440-02-0	13.7		2.01	0.131	1
10145	Phosphorus	7723-14-0	497		10.1	2.91	1
01662	Potassium	7440-09-7	4,210		101	8.39	1
01667	Sodium	7440-23-5	60.7	J	101	16.8	1
06969	Tin	7440-31-5	3.05	J	10.1	0.221	1
06970	Titanium	7440-32-6	942		1.01	0.171	1
06971	Vanadium	7440-62-2	40.1		1.01	0.131	1
06972	Zinc	7440-66-6	67.7		4.02	0.201	1
10146	Zirconium	7440-67-7	2.88	J	5.03	0.845	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.227	J	0.402	0.101	2
06142	Silver	7440-22-4	0.0584	J	0.201	0.0262	2
06144	Strontium	7440-24-6	24.5		1.01	0.171	5
06145	Thallium	7440-28-0	0.322		0.201	0.0302	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0126	J	0.0172	0.0103	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045D	n.a.	6.32		0.0100	0.0100	1
	The pH was measured in water at 18 C.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	3.5		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

*=This limit was used in the evaluation of the final result

Sample Description: SL-518-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7315439
LL Group # 1441366
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/16/2013 11:25 by E

Submitted: 12/17/2013 10:10
Reported: 01/09/2014 08:01

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

-518- SDG#: PH155-03

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	1.04	U	1.04	0.0432	1
11031	12378-PeCDD	40321-76-4	0.0876	JBQ	5.18	0.0346	1
11031	123478-HxCDD	39227-28-6	0.0699	JBQ	5.18	0.0292	1
11031	123678-HxCDD	57653-85-7	0.259	JB	5.18	0.0313	1
11031	123789-HxCDD	19408-74-3	0.297	JBQ	5.18	0.0282	1
11031	1234678-HpCDD	35822-46-9	2.12	JB	5.18	0.0291	1
11031	OCDD	3268-87-9	13.6	B	10.4	0.0246	1
11031	2378-TCDF	51207-31-9	0.151	J	1.04	0.0561	1
11031	12378-PeCDF	57117-41-6	0.142	JB	5.18	0.0294	1
11031	23478-PeCDF	57117-31-4	0.380	JB	5.18	0.0270	1
11031	123478-HxCDF	70648-26-9	0.155	JB	5.18	0.0232	1
11031	123678-HxCDF	57117-44-9	0.165	JB	5.18	0.0234	1
11031	123789-HxCDF	72918-21-9	0.154	JB	5.18	0.0238	1
11031	234678-HxCDF	60851-34-5	0.158	JBQ	5.18	0.0209	1
11031	1234678-HpCDF	67562-39-4	0.605	JB	5.18	0.0241	1
11031	1234789-HpCDF	55673-89-7	0.135	JB	5.18	0.0284	1
11031	OCDF	39001-02-0	0.950	JB	10.4	0.0272	1
D/F Toxic Equivalents	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.240				1

Labeled Compounds	**%Rec**	**Windows**
13C12-2378-TCDD	62	25 - 164
13C12-12378-PeCDD	64	25 - 181
13C12-123478-HxCDD	73	32 - 141
13C12-123678-HxCDD	74	28 - 130
13C12-123789-HxCDD	73	28 - 130
13C12-1234678-HpCDD	71	23 - 140
13C12-OCDD	66	17 - 157
13C12-2378-TCDF	60	24 - 169
13C12-12378-PeCDF	62	24 - 185
13C12-23478-PeCDF	64	21 - 178
13C12-123478-HxCDF	73	26 - 152
13C12-123678-HxCDF	73	26 - 123
13C12-234678-HxCDF	77	28 - 136
13C12-123789-HxCDF	78	29 - 147
13C12-1234678-HpCDF	75	28 - 143
13C12-1234789-HpCDF	70	26 - 138
13C12-OCDF	70	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column

*=This limit was used in the evaluation of the final result

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Environmental

Analysis Report

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Sample Description: SL-518-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7315439
LL Group # 1441366
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/16/2013 11:25 by E

Submitted: 12/17/2013 10:10
Reported: 01/09/2014 08:01

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

-518- SDG#: PH155-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

Q EMPC - Estimated Maximum Possible Concentration
F Interference is present
S Saturation of detection signal

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-518-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7315439
LL Group # 1441366
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Project Name: SSFL Phase 3 Sampling

Collected: 12/16/2013 11:25 by E

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CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

-518- SDG#: PH155-03

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13354SLB026	01/02/2014	10:33	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	13354SLB026	12/23/2013	06:30	Olivia Arosemena	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	133530025A	12/23/2013	13:05	Tracy A Cole	5
12959	EFH soil ext.(microwave)	SW-846 3546	1	133530025A	12/20/2013	09:15	Katheryne V Sponheimer	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13355001	12/25/2013	03:19	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13355001	12/21/2013	11:00	Chin F Ly	1
01643	Aluminum	SW-846 6010C	1	133540637001	12/27/2013	04:26	Tara L Snyder	1
06944	Antimony	SW-846 6010C	1	133540637001	12/26/2013	11:23	John W Yanzuk II	1
06935	Arsenic	SW-846 6010C	1	133540637001	12/26/2013	11:23	John W Yanzuk II	1
06946	Barium	SW-846 6010C	1	133540637001	12/26/2013	11:23	John W Yanzuk II	1
06947	Beryllium	SW-846 6010C	1	133540637001	12/26/2013	11:23	John W Yanzuk II	1
07914	Boron	SW-846 6010C	1	133540637001	12/26/2013	11:23	John W Yanzuk II	1
06949	Cadmium	SW-846 6010C	1	133540637001	12/26/2013	11:23	John W Yanzuk II	1
01650	Calcium	SW-846 6010C	1	133540637001	12/27/2013	04:26	Tara L Snyder	1
06951	Chromium	SW-846 6010C	1	133540637001	12/26/2013	11:23	John W Yanzuk II	1
06952	Cobalt	SW-846 6010C	1	133540637001	12/26/2013	11:23	John W Yanzuk II	1
06953	Copper	SW-846 6010C	1	133540637001	12/26/2013	11:23	John W Yanzuk II	1
01654	Iron	SW-846 6010C	1	133540637001	12/27/2013	04:26	Tara L Snyder	1
06955	Lead	SW-846 6010C	1	133540637001	12/26/2013	11:23	John W Yanzuk II	1
01656	Lithium	SW-846 6010C	1	133540637001	12/26/2013	11:23	John W Yanzuk II	1
01657	Magnesium	SW-846 6010C	1	133540637001	12/27/2013	04:26	Tara L Snyder	1
06958	Manganese	SW-846 6010C	1	133540637001	12/26/2013	11:23	John W Yanzuk II	1
06960	Molybdenum	SW-846 6010C	1	133540637001	12/26/2013	11:23	John W Yanzuk II	1
06961	Nickel	SW-846 6010C	1	133540637001	12/26/2013	11:23	John W Yanzuk II	1
10145	Phosphorus	SW-846 6010C	1	133540637001	12/26/2013	11:23	John W Yanzuk II	1
01662	Potassium	SW-846 6010C	1	133540637001	12/26/2013	11:23	John W Yanzuk II	1
01667	Sodium	SW-846 6010C	1	133540637001	12/26/2013	11:23	John W Yanzuk II	1
06969	Tin	SW-846 6010C	1	133540637001	12/26/2013	11:23	John W Yanzuk II	1
06970	Titanium	SW-846 6010C	1	133540637001	12/26/2013	11:23	John W Yanzuk II	1
06971	Vanadium	SW-846 6010C	1	133540637001	12/26/2013	11:23	John W Yanzuk II	1
06972	Zinc	SW-846 6010C	1	133540637001	12/26/2013	11:23	John W Yanzuk II	1
10146	Zirconium	SW-846 6010C	1	133540637001	12/26/2013	11:23	John W Yanzuk II	1
06141	Selenium	SW-846 6020A	1	133540637001B	01/04/2014	00:45	John P Hook	2
06142	Silver	SW-846 6020A	1	133540637001A	01/04/2014	00:45	John P Hook	2
06144	Strontium	SW-846 6020A	1	133540637001A	01/07/2014	21:30	John P Hook	5
06145	Thallium	SW-846 6020A	1	133540637001A	01/04/2014	00:45	John P Hook	2
00159	3a Mercury 7471A	SW-846 7471B	1	133540638001	12/23/2013	10:18	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	133540637001	12/22/2013	08:29	James L Mertz	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-518-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7315439
LL Group # 1441366
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/16/2013 11:25 by E

Submitted: 12/17/2013 10:10
Reported: 01/09/2014 08:01

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

-518- SDG#: PH155-03

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	133540638001	12/22/2013 10:33	James L Mertz	1
00394	15a pH by 9045D	SW-846 9045D modified	1	13351039402B	12/17/2013 11:00	Carolyn M Mastropietro	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13354162401B	12/20/2013 23:00	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-519-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7315440
LL Group # 1441366
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/16/2013 12:10 by E

Submitted: 12/17/2013 10:10
Reported: 01/09/2014 08:01

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

-519- SDG#: PH155-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.67	1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.34	1
12969	Anthracene	120-12-7	1.7	U	1.7	0.34	1
12969	Benzo(a)anthracene	56-55-3	1.7	U	1.7	0.67	1
12969	Benzo(a)pyrene	50-32-8	1.7	U	1.7	0.67	1
12969	Benzo(b)fluoranthene	205-99-2	0.97	J	1.7	0.67	1
12969	Benzo(e)pyrene	192-97-2	17	U	17	3.4	1
12969	Benzo(g,h,i)perylene	191-24-2	1.7	U	1.7	0.67	1
12969	Benzo(k)fluoranthene	207-08-9	1.7	U	1.7	0.67	1
12969	Butylbenzylphthalate	85-68-7	18	U	18	6.1	1
12969	Di-n-butylphthalate	84-74-2	18	U	18	6.1	1
12969	Chrysene	218-01-9	1.0	J	1.7	0.34	1
12969	Dibenz(a,h)anthracene	53-70-3	1.7	U	1.7	0.67	1
12969	Diethylphthalate	84-66-2	18	U	18	6.1	1
12969	Dimethylphthalate	131-11-3	18	U	18	6.1	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	18	U	18	6.1	1
12969	Fluoranthene	206-44-0	0.70	J	1.7	0.67	1
12969	Fluorene	86-73-7	1.7	U	1.7	0.67	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.7	U	1.7	0.67	1
12969	1-Methylnaphthalene	90-12-0	1.7	U	1.7	0.67	1
12969	2-Methylnaphthalene	91-57-6	1.7	U	1.7	0.67	1
12969	Naphthalene	91-20-3	0.82	J	1.7	0.67	1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.67	1
12969	Di-n-octylphthalate	117-84-0	18	U	18	6.1	1
12969	Phenanthrene	85-01-8	1.7	U	1.7	0.67	1
12969	Pyrene	129-00-0	0.68	J	1.7	0.67	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.1	U	5.1	2.0	1
12952	EFH (C15-C20)	n.a.	2.8	J	5.1	2.0	1
12952	EFH (C21-C30)	n.a.	18		5.1	2.0	1
12952	EFH (C30-C40)	n.a.	42		10	4.1	1
12952	EFH (C8-C11)	n.a.	5.1	U	5.1	2.0	1
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	12,500		39.2	7.06	1
06944	Antimony	7440-36-0	1.46	J	3.92	0.725	1
06935	Arsenic	7440-38-2	5.76		3.92	0.686	1
06946	Barium	7440-39-3	64.6		0.980	0.0323	1
06947	Beryllium	7440-41-7	0.579	J	0.980	0.0656	1
07914	Boron	7440-42-8	5.54	J	9.80	0.823	1
06949	Cadmium	7440-43-9	0.980	U	0.980	0.0745	1
01650	Calcium	7440-70-2	3,240		19.6	3.27	1
06951	Chromium	7440-47-3	15.9		2.94	0.157	1
06952	Cobalt	7440-48-4	6.05		0.980	0.0970	1
06953	Copper	7440-50-8	11.6		1.96	0.284	1
01654	Iron	7439-89-6	20,200		39.2	3.55	1
06955	Lead	7439-92-1	11.5		2.94	0.490	1
01656	Lithium	7439-93-2	16.9		3.9	0.33	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-519-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7315440
LL Group # 1441366
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/16/2013 12:10 by E

Submitted: 12/17/2013 10:10
Reported: 01/09/2014 08:01

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

-519- SDG#: PH155-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01657	Magnesium	7439-95-4	5,350		9.80	1.64	1
06958	Manganese	7439-96-5	246		0.980	0.0813	1
06960	Molybdenum	7439-98-7	0.226	J	1.96	0.167	1
06961	Nickel	7440-02-0	9.63		1.96	0.127	1
10145	Phosphorus	7723-14-0	447		9.80	2.83	1
01662	Potassium	7440-09-7	3,580		98.0	8.17	1
01667	Sodium	7440-23-5	71.2	J	98.0	16.4	1
06969	Tin	7440-31-5	2.57	J	9.80	0.216	1
06970	Titanium	7440-32-6	812		0.980	0.167	1
06971	Vanadium	7440-62-2	35.8		0.980	0.127	1
06972	Zinc	7440-66-6	52.6		3.92	0.196	1
10146	Zirconium	7440-67-7	2.03	J	4.90	0.823	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.181	J	0.392	0.0980	2
06142	Silver	7440-22-4	0.0429	J	0.196	0.0255	2
06144	Strontium	7440-24-6	24.6		0.980	0.167	5
06145	Thallium	7440-28-0	0.301		0.196	0.0294	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0165	U	0.0165	0.0099	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045D	n.a.	6.56		0.0100	0.0100	1
	The pH was measured in water at 19 C.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	2.8		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

*=This limit was used in the evaluation of the final result

Sample Description: SL-519-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7315440
LL Group # 1441366
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/16/2013 12:10 by E

Submitted: 12/17/2013 10:10
Reported: 01/09/2014 08:01

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

-519- SDG#: PH155-04

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	1.03	U	1.03	0.0387	1
11031	12378-PeCDD	40321-76-4	5.13	U	5.13	0.0360	1
11031	123478-HxCDD	39227-28-6	0.0614	JBQ	5.13	0.0329	1
11031	123678-HxCDD	57653-85-7	0.191	JB	5.13	0.0341	1
11031	123789-HxCDD	19408-74-3	0.258	JB	5.13	0.0324	1
11031	1234678-HpCDD	35822-46-9	1.45	JB	5.13	0.0258	1
11031	OCDD	3268-87-9	10.0	JB	10.3	0.0218	1
11031	2378-TCDF	51207-31-9	0.0786	JQ	1.03	0.0440	1
11031	12378-PeCDF	57117-41-6	0.128	JBQ	5.13	0.0206	1
11031	23478-PeCDF	57117-31-4	0.188	JBQ	5.13	0.0186	1
11031	123478-HxCDF	70648-26-9	0.0821	JBQ	5.13	0.0208	1
11031	123678-HxCDF	57117-44-9	0.112	JB	5.13	0.0202	1
11031	123789-HxCDF	72918-21-9	0.174	JBQ	5.13	0.0213	1
11031	234678-HxCDF	60851-34-5	0.0664	JB	5.13	0.0199	1
11031	1234678-HpCDF	67562-39-4	0.364	JB	5.13	0.0172	1
11031	1234789-HpCDF	55673-89-7	0.0896	JBQ	5.13	0.0212	1
11031	OCDF	39001-02-0	0.824	JB	10.3	0.0298	1
D/F Toxic Equivalents	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.0841				1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	66	25 - 164
13C12-12378-PeCDD	66	25 - 181
13C12-123478-HxCDD	78	32 - 141
13C12-123678-HxCDD	78	28 - 130
13C12-123789-HxCDD	78	28 - 130
13C12-1234678-HpCDD	74	23 - 140
13C12-OCDD	77	17 - 157
13C12-2378-TCDF	63	24 - 169
13C12-12378-PeCDF	65	24 - 185
13C12-23478-PeCDF	66	21 - 178
13C12-123478-HxCDF	77	26 - 152
13C12-123678-HxCDF	77	26 - 123
13C12-234678-HxCDF	80	28 - 136
13C12-123789-HxCDF	83	29 - 147
13C12-1234678-HpCDF	79	28 - 143
13C12-1234789-HpCDF	73	26 - 138
13C12-OCDF	76	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column

*=This limit was used in the evaluation of the final result

Sample Description: SL-519-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7315440
LL Group # 1441366
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/16/2013 12:10 by E

Submitted: 12/17/2013 10:10
Reported: 01/09/2014 08:01

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

-519- SDG#: PH155-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-519-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7315440
LL Group # 1441366
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/16/2013 12:10 by E

Submitted: 12/17/2013 10:10
Reported: 01/09/2014 08:01

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

-519- SDG#: PH155-04

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13354SLB026	01/02/2014	11:06	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	13354SLB026	12/23/2013	06:30	Olivia Arosemena	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	133530025A	12/23/2013	17:21	Tracy A Cole	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	133530025A	12/20/2013	09:15	Katheryne V Sponheimer	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13355001	12/25/2013	04:15	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13355001	12/21/2013	11:00	Chin F Ly	1
01643	Aluminum	SW-846 6010C	1	133540637001	12/27/2013	04:30	Tara L Snyder	1
06944	Antimony	SW-846 6010C	1	133540637001	12/26/2013	11:27	John W Yanzuk II	1
06935	Arsenic	SW-846 6010C	1	133540637001	12/26/2013	11:27	John W Yanzuk II	1
06946	Barium	SW-846 6010C	1	133540637001	12/26/2013	11:27	John W Yanzuk II	1
06947	Beryllium	SW-846 6010C	1	133540637001	12/26/2013	11:27	John W Yanzuk II	1
07914	Boron	SW-846 6010C	1	133540637001	12/26/2013	11:27	John W Yanzuk II	1
06949	Cadmium	SW-846 6010C	1	133540637001	12/26/2013	11:27	John W Yanzuk II	1
01650	Calcium	SW-846 6010C	1	133540637001	12/27/2013	04:30	Tara L Snyder	1
06951	Chromium	SW-846 6010C	1	133540637001	12/26/2013	11:27	John W Yanzuk II	1
06952	Cobalt	SW-846 6010C	1	133540637001	12/26/2013	11:27	John W Yanzuk II	1
06953	Copper	SW-846 6010C	1	133540637001	12/26/2013	11:27	John W Yanzuk II	1
01654	Iron	SW-846 6010C	1	133540637001	12/27/2013	04:30	Tara L Snyder	1
06955	Lead	SW-846 6010C	1	133540637001	12/26/2013	11:27	John W Yanzuk II	1
01656	Lithium	SW-846 6010C	1	133540637001	12/26/2013	11:27	John W Yanzuk II	1
01657	Magnesium	SW-846 6010C	1	133540637001	12/27/2013	04:30	Tara L Snyder	1
06958	Manganese	SW-846 6010C	1	133540637001	12/26/2013	11:27	John W Yanzuk II	1
06960	Molybdenum	SW-846 6010C	1	133540637001	12/26/2013	11:27	John W Yanzuk II	1
06961	Nickel	SW-846 6010C	1	133540637001	12/26/2013	11:27	John W Yanzuk II	1
10145	Phosphorus	SW-846 6010C	1	133540637001	12/26/2013	11:27	John W Yanzuk II	1
01662	Potassium	SW-846 6010C	1	133540637001	12/26/2013	11:27	John W Yanzuk II	1
01667	Sodium	SW-846 6010C	1	133540637001	12/26/2013	11:27	John W Yanzuk II	1
06969	Tin	SW-846 6010C	1	133540637001	12/26/2013	11:27	John W Yanzuk II	1
06970	Titanium	SW-846 6010C	1	133540637001	12/26/2013	11:27	John W Yanzuk II	1
06971	Vanadium	SW-846 6010C	1	133540637001	12/26/2013	11:27	John W Yanzuk II	1
06972	Zinc	SW-846 6010C	1	133540637001	12/26/2013	11:27	John W Yanzuk II	1
10146	Zirconium	SW-846 6010C	1	133540637001	12/26/2013	11:27	John W Yanzuk II	1
06141	Selenium	SW-846 6020A	1	133540637001B	01/04/2014	00:47	John P Hook	2
06142	Silver	SW-846 6020A	1	133540637001A	01/04/2014	00:47	John P Hook	2
06144	Strontium	SW-846 6020A	1	133540637001A	01/07/2014	21:31	John P Hook	5
06145	Thallium	SW-846 6020A	1	133540637001A	01/04/2014	00:47	John P Hook	2
00159	3a Mercury 7471A	SW-846 7471B	1	133540638001	12/23/2013	10:20	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	133540637001	12/22/2013	08:29	James L Mertz	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-519-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7315440
LL Group # 1441366
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/16/2013 12:10 by E

Submitted: 12/17/2013 10:10
Reported: 01/09/2014 08:01

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

-519- SDG#: PH155-04

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	133540638001	12/22/2013 10:33	James L Mertz	1
00394	15a pH by 9045D	SW-846 9045D modified	1	13351039402B	12/17/2013 11:00	Carolyn M Mastropietro	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13354162401B	12/20/2013 23:00	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-520-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7315441
LL Group # 1441366
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/16/2013 10:30 by E

Submitted: 12/17/2013 10:10
Reported: 01/09/2014 08:01

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

-520- SDG#: PH155-05

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.67	1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.33	1
12969	Anthracene	120-12-7	1.7	U	1.7	0.33	1
12969	Benzo(a)anthracene	56-55-3	1.7	U	1.7	0.67	1
12969	Benzo(a)pyrene	50-32-8	0.68	J	1.7	0.67	1
12969	Benzo(b)fluoranthene	205-99-2	1.5	J	1.7	0.67	1
12969	Benzo(e)pyrene	192-97-2	17	U	17	3.3	1
12969	Benzo(g,h,i)perylene	191-24-2	1.7	U	1.7	0.67	1
12969	Benzo(k)fluoranthene	207-08-9	1.7	U	1.7	0.67	1
12969	Butylbenzylphthalate	85-68-7	18	U	18	6.0	1
12969	Di-n-butylphthalate	84-74-2	18	U	18	6.0	1
12969	Chrysene	218-01-9	1.3	J	1.7	0.33	1
12969	Dibenz(a,h)anthracene	53-70-3	1.7	U	1.7	0.67	1
12969	Diethylphthalate	84-66-2	18	U	18	6.0	1
12969	Dimethylphthalate	131-11-3	18	U	18	6.0	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	18	U	18	6.0	1
12969	Fluoranthene	206-44-0	1.3	J	1.7	0.67	1
12969	Fluorene	86-73-7	1.7	U	1.7	0.67	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.7	U	1.7	0.67	1
12969	1-Methylnaphthalene	90-12-0	1.7	U	1.7	0.67	1
12969	2-Methylnaphthalene	91-57-6	1.7	U	1.7	0.67	1
12969	Naphthalene	91-20-3	1.3	J	1.7	0.67	1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.67	1
12969	Di-n-octylphthalate	117-84-0	18	U	18	6.0	1
12969	Phenanthrene	85-01-8	0.95	J	1.7	0.67	1
12969	Pyrene	129-00-0	1.3	J	1.7	0.67	1

The recovery for the sample surrogate(s) is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken:
The sample was re-extracted outside the method required holding time and the QC is compliant. All results are reported from the first trial. Similar results were obtained in both trials with the exception of:
2-methylnaphthalene .68 ug/kg
fluorene .93 ug/kg
benzo(g,h,i)perylene .68 ug/kg
were detected in the re-extraction.

GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/kg**		**mg/kg**	**mg/kg**	
12952	EFH (C12-C14)	n.a.	5.0	U	5.0	2.0	1
12952	EFH (C15-C20)	n.a.	2.1	J	5.0	2.0	1
12952	EFH (C21-C30)	n.a.	11		5.0	2.0	1
12952	EFH (C30-C40)	n.a.	23		10	4.0	1
12952	EFH (C8-C11)	n.a.	5.0	U	5.0	2.0	1
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
01643	Aluminum	7429-90-5	8,940		39.8	7.18	1
06944	Antimony	7440-36-0	1.15	J	3.98	0.737	1
06935	Arsenic	7440-38-2	4.88		3.98	0.697	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-520-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7315441
LL Group # 1441366
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/16/2013 10:30 by E

Submitted: 12/17/2013 10:10
Reported: 01/09/2014 08:01

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

-520- SDG#: PH155-05

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	**mg/kg**	
06946	Barium	7440-39-3	48.0		0.995	0.0328	1
06947	Beryllium	7440-41-7	0.393	J	0.995	0.0667	1
07914	Boron	7440-42-8	5.50	J	9.95	0.836	1
06949	Cadmium	7440-43-9	0.995	U	0.995	0.0756	1
01650	Calcium	7440-70-2	3,060		19.9	3.32	1
06951	Chromium	7440-47-3	10.9		2.99	0.159	1
06952	Cobalt	7440-48-4	5.23		0.995	0.0985	1
06953	Copper	7440-50-8	8.38		1.99	0.289	1
01654	Iron	7439-89-6	14,800		39.8	3.60	1
06955	Lead	7439-92-1	9.28		2.99	0.498	1
01656	Lithium	7439-93-2	10.5		4.0	0.34	1
01657	Magnesium	7439-95-4	3,970		9.95	1.66	1
06958	Manganese	7439-96-5	185		0.995	0.0826	1
06960	Molybdenum	7439-98-7	0.259	J	1.99	0.169	1
06961	Nickel	7440-02-0	6.88		1.99	0.129	1
10145	Phosphorus	7723-14-0	332		9.95	2.88	1
01662	Potassium	7440-09-7	2,750		99.5	8.30	1
01667	Sodium	7440-23-5	58.3	J	99.5	16.6	1
06969	Tin	7440-31-5	2.44	J	9.95	0.219	1
06970	Titanium	7440-32-6	647		0.995	0.169	1
06971	Vanadium	7440-62-2	27.7		0.995	0.129	1
06972	Zinc	7440-66-6	39.9		3.98	0.199	1
10146	Zirconium	7440-67-7	1.80	J	4.98	0.836	1
	SW-846 6020A		**mg/kg**		**mg/kg**	**mg/kg**	
06141	Selenium	7782-49-2	0.153	J	0.398	0.0995	2
06142	Silver	7440-22-4	0.199	U	0.199	0.0259	2
06144	Strontium	7440-24-6	17.9		0.398	0.0677	2
06145	Thallium	7440-28-0	0.231		0.199	0.0299	2
	SW-846 7471B		**mg/kg**		**mg/kg**	**mg/kg**	
00159	3a Mercury 7471A	7439-97-6	0.0168	U	0.0168	0.0101	1
Wet Chemistry	**SW-846 9045D modified**		**Std. Units**		**Std. Units**	**Std. Units**	
00394	15a pH by 9045D	n.a.	7.17		0.0100	0.0100	1
	The pH was measured in water at 19.5 C.						
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	1.5		0.10	0.10	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

*=This limit was used in the evaluation of the final result

Sample Description: SL-520-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7315441
LL Group # 1441366
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/16/2013 10:30 by E

Submitted: 12/17/2013 10:10
Reported: 01/09/2014 08:01

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

-520- SDG#: PH155-05

CAT No.	Analysis Name	CAS Number	Dry Result		Dry MRL*	Dry EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.997	U	0.997	0.0386	1
11031	12378-PeCDD	40321-76-4	0.0334	JBQ	4.99	0.0326	1
11031	123478-HxCDD	39227-28-6	0.0646	JB	4.99	0.0258	1
11031	123678-HxCDD	57653-85-7	0.355	JB	4.99	0.0257	1
11031	123789-HxCDD	19408-74-3	0.578	JB	4.99	0.0258	1
11031	1234678-HpCDD	35822-46-9	1.27	JB	4.99	0.0203	1
11031	OCDD	3268-87-9	9.90	JB	9.97	0.0157	1
11031	2378-TCDF	51207-31-9	0.102	J	0.997	0.0396	1
11031	12378-PeCDF	57117-41-6	0.210	JBQ	4.99	0.0199	1
11031	23478-PeCDF	57117-31-4	0.176	JBQ	4.99	0.0188	1
11031	123478-HxCDF	70648-26-9	0.0827	JBQ	4.99	0.0182	1
11031	123678-HxCDF	57117-44-9	0.131	JBQ	4.99	0.0179	1
11031	123789-HxCDF	72918-21-9	0.0645	JB	4.99	0.0195	1
11031	234678-HxCDF	60851-34-5	0.110	JBQ	4.99	0.0176	1
11031	1234678-HpCDF	67562-39-4	0.342	JBQ	4.99	0.0154	1
11031	1234789-HpCDF	55673-89-7	0.0671	JBQ	4.99	0.0182	1
11031	OCDF	39001-02-0	0.593	JBQ	9.97	0.0222	1
D/F Toxic Equivalents	**EPA 1613B**		ng/kg		ng/kg	ng/kg	
11031	TEQ WHO 2005 - EDLx0.0	n.a.	0.132				1

Labeled Compounds	**%Rec**	**Windows**
13C12-2378-TCDD	70	25 - 164
13C12-12378-PeCDD	70	25 - 181
13C12-123478-HxCDD	83	32 - 141
13C12-123678-HxCDD	86	28 - 130
13C12-123789-HxCDD	83	28 - 130
13C12-1234678-HpCDD	83	23 - 140
13C12-OCDD	81	17 - 157
13C12-2378-TCDF	65	24 - 169
13C12-12378-PeCDF	69	24 - 185
13C12-23478-PeCDF	70	21 - 178
13C12-123478-HxCDF	82	26 - 152
13C12-123678-HxCDF	84	26 - 123
13C12-234678-HxCDF	84	28 - 136
13C12-123789-HxCDF	82	29 - 147
13C12-1234678-HpCDF	85	28 - 143
13C12-1234789-HpCDF	81	26 - 138
13C12-OCDF	80	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column

*=This limit was used in the evaluation of the final result

Sample Description: SL-520-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7315441
LL Group # 1441366
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/16/2013 10:30 by E

Submitted: 12/17/2013 10:10
Reported: 01/09/2014 08:01

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

-520- SDG#: PH155-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry MRL*	Dry EDL	Dilution Factor

Q EMPC - Estimated Maximum Possible Concentration
F Interference is present
S Saturation of detection signal

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-520-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7315441
LL Group # 1441366
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/16/2013 10:30 by E

Submitted: 12/17/2013 10:10
Reported: 01/09/2014 08:01

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

-520- SDG#: PH155-05

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13354SLB026	01/02/2014	11:39	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	13354SLB026	12/23/2013	06:30	Olivia Arosemena	1
12952	10a TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	133530025A	12/23/2013	12:43	Tracy A Cole	1
12959	EFH soil ext.(microwave)	SW-846 3546	1	133530025A	12/20/2013	09:15	Katheryne V Sponheimer	1
11031	23a Dioxin/Furan by EPA 1613B	EPA 1613B	1	13355001	12/25/2013	05:12	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	13355001	12/21/2013	11:00	Chin F Ly	1
01643	Aluminum	SW-846 6010C	1	133540637001	12/27/2013	04:33	Tara L Snyder	1
06944	Antimony	SW-846 6010C	1	133540637001	12/26/2013	11:31	John W Yanzuk II	1
06935	Arsenic	SW-846 6010C	1	133540637001	12/26/2013	11:31	John W Yanzuk II	1
06946	Barium	SW-846 6010C	1	133540637001	12/26/2013	11:31	John W Yanzuk II	1
06947	Beryllium	SW-846 6010C	1	133540637001	12/26/2013	11:31	John W Yanzuk II	1
07914	Boron	SW-846 6010C	1	133540637001	12/26/2013	11:31	John W Yanzuk II	1
06949	Cadmium	SW-846 6010C	1	133540637001	12/26/2013	11:31	John W Yanzuk II	1
01650	Calcium	SW-846 6010C	1	133540637001	12/27/2013	04:33	Tara L Snyder	1
06951	Chromium	SW-846 6010C	1	133540637001	12/26/2013	11:31	John W Yanzuk II	1
06952	Cobalt	SW-846 6010C	1	133540637001	12/26/2013	11:31	John W Yanzuk II	1
06953	Copper	SW-846 6010C	1	133540637001	12/26/2013	11:31	John W Yanzuk II	1
01654	Iron	SW-846 6010C	1	133540637001	12/27/2013	04:33	Tara L Snyder	1
06955	Lead	SW-846 6010C	1	133540637001	12/26/2013	11:31	John W Yanzuk II	1
01656	Lithium	SW-846 6010C	1	133540637001	12/26/2013	11:31	John W Yanzuk II	1
01657	Magnesium	SW-846 6010C	1	133540637001	12/27/2013	04:33	Tara L Snyder	1
06958	Manganese	SW-846 6010C	1	133540637001	12/26/2013	11:31	John W Yanzuk II	1
06960	Molybdenum	SW-846 6010C	1	133540637001	12/26/2013	11:31	John W Yanzuk II	1
06961	Nickel	SW-846 6010C	1	133540637001	12/26/2013	11:31	John W Yanzuk II	1
10145	Phosphorus	SW-846 6010C	1	133540637001	12/26/2013	11:31	John W Yanzuk II	1
01662	Potassium	SW-846 6010C	1	133540637001	12/26/2013	11:31	John W Yanzuk II	1
01667	Sodium	SW-846 6010C	1	133540637001	12/26/2013	11:31	John W Yanzuk II	1
06969	Tin	SW-846 6010C	1	133540637001	12/26/2013	11:31	John W Yanzuk II	1
06970	Titanium	SW-846 6010C	1	133540637001	12/26/2013	11:31	John W Yanzuk II	1
06971	Vanadium	SW-846 6010C	1	133540637001	12/26/2013	11:31	John W Yanzuk II	1
06972	Zinc	SW-846 6010C	1	133540637001	12/26/2013	11:31	John W Yanzuk II	1
10146	Zirconium	SW-846 6010C	1	133540637001	12/26/2013	11:31	John W Yanzuk II	1
06141	Selenium	SW-846 6020A	1	133540637001B	01/04/2014	00:50	John P Hook	2
06142	Silver	SW-846 6020A	1	133540637001A	01/04/2014	00:50	John P Hook	2
06144	Strontium	SW-846 6020A	1	133540637001A	01/04/2014	00:50	John P Hook	2
06145	Thallium	SW-846 6020A	1	133540637001A	01/04/2014	00:50	John P Hook	2
00159	3a Mercury 7471A	SW-846 7471B	1	133540638001	12/23/2013	10:22	Damary Valentin	1
10637	SW SW846 (IV)ICP/ICPMS Digest	SW-846 3050B	1	133540637001	12/22/2013	08:29	James L Mertz	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: SL-520-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7315441
LL Group # 1441366
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/16/2013 10:30 by E

Submitted: 12/17/2013 10:10
Reported: 01/09/2014 08:01

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

-520- SDG#: PH155-05

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	133540638001	12/22/2013 10:33	James L Mertz	1
00394	15a pH by 9045D	SW-846 9045D modified	1	13351039402B	12/17/2013 11:00	Carolyn M Mastropietro	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13354162401B	12/20/2013 23:00	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: TB2-121613 Water
SSFL Phase 3 Subarea NBZ

LL Sample # WW 7315442
LL Group # 1441366
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/16/2013 08:00 by E

Submitted: 12/17/2013 10:10
Reported: 01/09/2014 08:01

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

-TB2- SDG#: PH155-06TB

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC Volatiles	**TPH GRO SW-8015B**		**ug/l**		**ug/l**	**ug/l**	
08229	TPH-GRO S.CA water C5-C12	n.a.	50	U	50	20	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08229	11b TPH by EPA 8015B GRO	TPH GRO SW-8015B	1	13356A20A	12/22/2013 09:59	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	13356A20A	12/22/2013 09:59	Marie D Beamenderfer	1

*=This limit was used in the evaluation of the final result

Sample Description: EB2-121613 Water
SSFL Phase 3 Subarea NBZ

LL Sample # WW 7315443
LL Group # 1441366
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/16/2013 15:30 by E

Submitted: 12/17/2013 10:10
Reported: 01/09/2014 08:01

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

--EB2 SDG#: PH155-07EB*

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/l**		**ug/l**	**ug/l**	
12971	Acenaphthene	83-32-9	0.053	U	0.053	0.011	1
12971	Acenaphthylene	208-96-8	0.053	U	0.053	0.011	1
12971	Anthracene	120-12-7	0.053	U	0.053	0.011	1
12971	Benzo(a)anthracene	56-55-3	0.053	U	0.053	0.011	1
12971	Benzo(a)pyrene	50-32-8	0.053	U	0.053	0.011	1
12971	Benzo(b)fluoranthene	205-99-2	0.053	U	0.053	0.011	1
12971	Benzo(e)pyrene	192-97-2	0.053	U	0.053	0.011	1
12971	Benzo(g,h,i)perylene	191-24-2	0.053	U	0.053	0.011	1
12971	Benzo(k)fluoranthene	207-08-9	0.053	U	0.053	0.011	1
12971	Butylbenzylphthalate	85-68-7	1.1	U	1.1	0.053	1
12971	Di-n-butylphthalate	84-74-2	0.23	J	1.1	0.053	1
12971	Chrysene	218-01-9	0.053	U	0.053	0.011	1
12971	Dibenz(a,h)anthracene	53-70-3	0.053	U	0.053	0.011	1
12971	Diethylphthalate	84-66-2	0.35	J	1.1	0.053	1
12971	Dimethylphthalate	131-11-3	1.1	U	1.1	0.053	1
12971	Bis(2-Ethylhexyl)phthalate	117-81-7	2.2		1.1	0.053	1
12971	Fluoranthene	206-44-0	0.053	U	0.053	0.011	1
12971	Fluorene	86-73-7	0.053	U	0.053	0.011	1
12971	Indeno(1,2,3-cd)pyrene	193-39-5	0.053	U	0.053	0.011	1
12971	1-Methylnaphthalene	90-12-0	0.053	U	0.053	0.011	1
12971	2-Methylnaphthalene	91-57-6	0.053	U	0.053	0.011	1
12971	Naphthalene	91-20-3	0.053	U	0.053	0.032	1
12971	N-Nitrosodimethylamine	62-75-9	0.053	U	0.053	0.011	1
12971	Di-n-octylphthalate	117-84-0	0.060	J	1.1	0.053	1
12971	Phenanthrene	85-01-8	0.053	U	0.053	0.032	1
12971	Pyrene	129-00-0	0.053	U	0.053	0.011	1

Target analytes were detected in the method blank associated with the samples as noted on the QC Summary. Since the result is within the acceptance range allowed by the method, the data is reported.

GC Volatiles	**TPH GRO SW-8015B**		**ug/l**		**ug/l**	**ug/l**	
08229	TPH-GRO S.CA water C5-C12	n.a.	50	U	50	20	1
GC Petroleum Hydrocarbons	**SW-846 8015B modified**		**mg/l**		**mg/l**	**mg/l**	
10365	EFH (C12-C14)	n.a.	0.099	U	0.099	0.050	1
10365	EFH (C15-C20)	n.a.	0.099	U	0.099	0.050	1
10365	EFH (C21-C30)	n.a.	0.099	U	0.099	0.050	1
10365	EFH (C30 - C40)	n.a.	0.50	U	0.50	0.099	1
10365	EFH (C8-C11)	n.a.	0.099	U	0.099	0.050	1
Metals	**SW-846 6010C**		**mg/l**		**mg/l**	**mg/l**	
01743	Aluminum	7429-90-5	0.400	U	0.400	0.0828	1
07044	Antimony	7440-36-0	0.0400	U	0.0400	0.0053	1
07035	Arsenic	7440-38-2	0.0400	U	0.0400	0.0068	1
07046	Barium	7440-39-3	0.0100	U	0.0100	0.00033	1
07047	Beryllium	7440-41-7	0.0100	U	0.0100	0.00067	1
08014	Boron	7440-42-8	0.100	U	0.100	0.0084	1
07049	Cadmium	7440-43-9	0.0100	U	0.0100	0.00076	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: EB2-121613 Water
SSFL Phase 3 Subarea NBZ

LL Sample # WW 7315443
LL Group # 1441366
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/16/2013 15:30 by E

Submitted: 12/17/2013 10:10
Reported: 01/09/2014 08:01

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

--EB2 SDG#: PH155-07EB*

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
Metals	**SW-846 6010C**		**mg/l**	**mg/l**	**mg/l**	
01750	Calcium	7440-70-2	0.400 U	0.400	0.0334	1
07051	Chromium	7440-47-3	0.0300 U	0.0300	0.0016	1
07052	Cobalt	7440-48-4	0.0100 U	0.0100	0.0013	1
07053	Copper	7440-50-8	0.0200 U	0.0200	0.0027	1
01754	Iron	7439-89-6	0.400 U	0.400	0.0430	1
07055	Lead	7439-92-1	0.0300 U	0.0300	0.0047	1
01756	Lithium	7439-93-2	0.0400 U	0.0400	0.0047	1
01757	Magnesium	7439-95-4	0.200 U	0.200	0.0167	1
07058	Manganese	7439-96-5	0.0100 U	0.0100	0.00083	1
07060	Molybdenum	7439-98-7	0.0200 U	0.0200	0.0017	1
07061	Nickel	7440-02-0	0.0200 U	0.0200	0.0015	1
10143	Phosphorus	7723-14-0	0.200 U	0.200	0.0418	1
01762	Potassium	7440-09-7	1.00 U	1.00	0.0980	1
01767	Sodium	7440-23-5	2.00 U	2.00	0.167	1
07069	Tin	7440-31-5	0.0400 U	0.0400	0.0029	1
07070	Titanium	7440-32-6	0.0200 U	0.0200	0.0017	1
07071	Vanadium	7440-62-2	0.0100 U	0.0100	0.0020	1
07072	Zinc	7440-66-6	0.0400 U	0.0400	0.0020	1
10144	Zirconium	7440-67-7	0.100 U	0.100	0.0084	1
	SW-846 6020A		**mg/l**	**mg/l**	**mg/l**	
06041	Selenium	7782-49-2	0.0040 U	0.0040	0.00050	1
06042	Silver	7440-22-4	0.0010 U	0.0010	0.00011	1
06044	Strontium	7440-24-6	0.0020 U	0.0020	0.00034	1
06045	Thallium	7440-28-0	0.0010 U	0.0010	0.00015	1
	SW-846 7470A		**mg/l**	**mg/l**	**mg/l**	
00259	3b Mercury 7470A	7439-97-6	0.00020 U	0.00020	0.000060	1
Wet Chemistry	**SW-846 9040C**		**Std. Units**	**Std. Units**	**Std. Units**	
12152	28b pH (9040B and 9040C)	n.a.	5.6	0.010	0.010	1

*=This limit was used in the evaluation of the final result

Sample Description: EB2-121613 Water
SSFL Phase 3 Subarea NBZ

LL Sample # WW 7315443
LL Group # 1441366
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/16/2013 15:30 by E

Submitted: 12/17/2013 10:10
Reported: 01/09/2014 08:01

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

--EB2 SDG#: PH155-07EB*

CAT No.	Analysis Name	CAS Number	As Received Result		As Received MRL*	As Received EDL	Dilution Factor
Dioxins/Furans	**EPA 1613B**		**pg/l**		**pg/l**	**pg/l**	
10915	2378-TCDD	1746-01-6	2.00	U	2.00	0.820	1
10915	12378-PeCDD	40321-76-4	10.0	U	10.0	0.593	1
10915	123478-HxCDD	39227-28-6	10.0	U	10.0	0.357	1
10915	123678-HxCDD	57653-85-7	10.0	U	10.0	0.371	1
10915	123789-HxCDD	19408-74-3	0.456	JBQ	10.0	0.376	1
10915	1234678-HpCDD	35822-46-9	0.943	JB	10.0	0.531	1
10915	OCDD	3268-87-9	2.16	JBQ	20.0	0.488	1
10915	2378-TCDF	51207-31-9	0.772	JBQ	2.00	0.520	1
10915	12378-PeCDF	57117-41-6	0.658	JBQ	10.0	0.343	1
10915	23478-PeCDF	57117-31-4	0.493	JBQ	10.0	0.319	1
10915	123478-HxCDF	70648-26-9	0.388	JB	10.0	0.255	1
10915	123678-HxCDF	57117-44-9	10.0	U	10.0	0.256	1
10915	123789-HxCDF	72918-21-9	0.581	JBQ	10.0	0.314	1
10915	234678-HxCDF	60851-34-5	0.331	JBQ	10.0	0.243	1
10915	1234678-HpCDF	67562-39-4	0.721	JBQ	10.0	0.129	1
10915	1234789-HpCDF	55673-89-7	10.0	U	10.0	0.169	1
10915	OCDF	39001-02-0	1.24	JBQ	20.0	0.728	1
D/F Toxic Equivalents	**EPA 1613B**		**pg/l**		**pg/l**	**pg/l**	
10915	TEQ WHO 2005 - EDLx0.0	n.a.	0.0482				1

Labeled Compounds	**%Rec**	**Windows**
13C12-2378-TCDD	39	25 - 164
13C12-12378-PeCDD	37	25 - 181
13C12-123478-HxCDD	46	32 - 141
13C12-123678-HxCDD	45	28 - 130
13C12-123789-HxCDD	44	28 - 130
13C12-1234678-HpCDD	42	23 - 140
13C12-OCDD	37	17 - 157
13C12-2378-TCDF	39	24 - 169
13C12-12378-PeCDF	38	24 - 185
13C12-23478-PeCDF	38	21 - 178
13C12-123478-HxCDF	47	26 - 152
13C12-123678-HxCDF	48	26 - 123
13C12-234678-HxCDF	47	28 - 136
13C12-123789-HxCDF	45	29 - 147
13C12-1234678-HpCDF	44	28 - 143
13C12-1234789-HpCDF	40	26 - 138
13C12-OCDF	39	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: EB2-121613 Water
SSFL Phase 3 Subarea NBZ

LL Sample # WW 7315443
LL Group # 1441366
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/16/2013 15:30 by E

Submitted: 12/17/2013 10:10
Reported: 01/09/2014 08:01

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

--EB2 SDG#: PH155-07EB*

CAT No.	Analysis Name	CAS Number	As Received Result	As Received MRL*	As Received EDL	Dilution Factor

Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: EB2-121613 Water
SSFL Phase 3 Subarea NBZ

LL Sample # WW 7315443
LL Group # 1441366
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/16/2013 15:30 by E

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CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

--EB2 SDG#: PH155-07EB*

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12971	7b SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13354WAH026	12/22/2013 11:29	Chad A Moline	1
10466	BNA Water Extraction SIM	SW-846 3510C	1	13354WAH026	12/20/2013 17:00	Seth A Farrier	1
08229	11b TPH by EPA 8015B GRO	TPH GRO SW-8015B	1	13356A20A	12/22/2013 10:21	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	13356A20A	12/22/2013 10:21	Marie D Beamenderfer	1
10365	10b TPH by EPA 8015B (DRO)	SW-846 8015B modified	1	133520004A	12/19/2013 15:04	Tracy A Cole	1
11203	EFH Waters Extraction	SW-846 3510C	1	133520004A	12/18/2013 18:15	JoElla L Rice	1
10915	17b Dioxin/Furan by EPA 1613B	EPA 1613B	1	13354003	12/24/2013 08:18	Nelson H Risser	1
10914	Dioxins/Furans in Water - SepF	EPA 1613B	1	13354003	12/20/2013 12:45	Brett M Weidman	1
01743	Aluminum	SW-846 6010C	1	133530635003	12/23/2013 13:23	Eric L Eby	1
07044	Antimony	SW-846 6010C	1	133530635003	12/23/2013 13:23	Eric L Eby	1
07035	Arsenic	SW-846 6010C	1	133530635003	12/23/2013 13:23	Eric L Eby	1
07046	Barium	SW-846 6010C	1	133530635003	12/23/2013 13:23	Eric L Eby	1
07047	Beryllium	SW-846 6010C	1	133530635003	12/23/2013 13:23	Eric L Eby	1
08014	Boron	SW-846 6010C	1	133530635003	12/23/2013 13:23	Eric L Eby	1
07049	Cadmium	SW-846 6010C	1	133530635003	12/23/2013 13:23	Eric L Eby	1
01750	Calcium	SW-846 6010C	1	133530635003	12/23/2013 13:23	Eric L Eby	1
07051	Chromium	SW-846 6010C	1	133530635003	12/23/2013 13:23	Eric L Eby	1
07052	Cobalt	SW-846 6010C	1	133530635003	12/23/2013 13:23	Eric L Eby	1
07053	Copper	SW-846 6010C	1	133530635003	12/23/2013 13:23	Eric L Eby	1
01754	Iron	SW-846 6010C	1	133530635003	12/23/2013 13:23	Eric L Eby	1
07055	Lead	SW-846 6010C	1	133530635003	12/23/2013 13:23	Eric L Eby	1
01756	Lithium	SW-846 6010C	1	133530635003	12/23/2013 13:23	Eric L Eby	1
01757	Magnesium	SW-846 6010C	1	133530635003	12/23/2013 13:23	Eric L Eby	1
07058	Manganese	SW-846 6010C	1	133530635003	12/23/2013 13:23	Eric L Eby	1
07060	Molybdenum	SW-846 6010C	1	133530635003	12/23/2013 13:23	Eric L Eby	1
07061	Nickel	SW-846 6010C	1	133530635003	12/23/2013 13:23	Eric L Eby	1
10143	Phosphorus	SW-846 6010C	1	133530635003	12/23/2013 13:23	Eric L Eby	1
01762	Potassium	SW-846 6010C	1	133530635003	12/23/2013 13:23	Eric L Eby	1
01767	Sodium	SW-846 6010C	1	133530635003	12/23/2013 13:23	Eric L Eby	1
07069	Tin	SW-846 6010C	1	133530635003	12/23/2013 13:23	Eric L Eby	1
07070	Titanium	SW-846 6010C	1	133530635003	12/23/2013 13:23	Eric L Eby	1
07071	Vanadium	SW-846 6010C	1	133530635003	12/23/2013 13:23	Eric L Eby	1
07072	Zinc	SW-846 6010C	1	133530635003	12/23/2013 13:23	Eric L Eby	1
10144	Zirconium	SW-846 6010C	1	133530635003	12/23/2013 13:23	Eric L Eby	1
06041	Selenium	SW-846 6020A	1	133530639001B	12/23/2013 21:57	John P Hook	1
06042	Silver	SW-846 6020A	1	133530639001A	12/23/2013 21:57	John P Hook	1
06044	Strontium	SW-846 6020A	1	133530639001A	12/23/2013 21:57	John P Hook	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: EB2-121613 Water
SSFL Phase 3 Subarea NBZ

LL Sample # WW 7315443
LL Group # 1441366
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/16/2013 15:30 by E

Submitted: 12/17/2013 10:10
Reported: 01/09/2014 08:01

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

--EB2 SDG#: PH155-07EB*

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06045	Thallium	SW-846 6020A	1	133530639001A	12/23/2013 21:57	John P Hook	1
00259	3b Mercury 7470A	SW-846 7470A	1	133605713003	12/27/2013 10:24	Damary Valentin	1
10635	WW SW846(IV) ICP Dig (tot rec)	SW-846 3005A	1	133530635003	12/21/2013 06:55	James L Mertz	1
10639	ICP/MS SW846 (IV) Water Digest	SW-846 3010A modified	1	133530639001	12/21/2013 07:00	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	133605713003	12/27/2013 08:00	Damary Valentin	1
12152	28b pH (9040B and 9040C)	SW-846 9040C	1	13352003202A	12/18/2013 18:43	Michele L Graham	1

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1441366
Reported: 01/09/14 at 08:01 AM

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 13354SLB026	Sample number(s): 7315437-7315441									
Acenaphthene	1.7	U	1.7	0.67	ug/kg	88		77-116		
Acenaphthylene	1.7	U	1.7	0.33	ug/kg	90		78-120		
Anthracene	1.7	U	1.7	0.33	ug/kg	91		80-116		
Benzo(a)anthracene	1.7	U	1.7	0.67	ug/kg	101		83-119		
Benzo(a)pyrene	1.7	U	1.7	0.67	ug/kg	100		80-122		
Benzo(b)fluoranthene	1.7	U	1.7	0.67	ug/kg	113		82-135		
Benzo(e)pyrene	17	U	17.	3.3	ug/kg	94		81-110		
Benzo(g,h,i)perylene	1.7	U	1.7	0.67	ug/kg	100		79-121		
Benzo(k)fluoranthene	1.7	U	1.7	0.67	ug/kg	95		79-123		
Butylbenzylphthalate	18	U	18.	6.0	ug/kg	96		77-123		
Di-n-butylphthalate	18	U	18.	6.0	ug/kg	89		78-125		
Chrysene	1.7	U	1.7	0.33	ug/kg	102		84-113		
Dibenz(a,h)anthracene	1.7	U	1.7	0.67	ug/kg	96		78-124		
Diethylphthalate	18	U	18.	6.0	ug/kg	94		77-130		
Dimethylphthalate	18	U	18.	6.0	ug/kg	97		85-122		
Bis(2-Ethylhexyl)phthalate	18	U	18.	6.0	ug/kg	94		79-121		
Fluoranthene	1.7	U	1.7	0.67	ug/kg	97		85-116		
Fluorene	1.7	U	1.7	0.67	ug/kg	95		81-126		
Indeno(1,2,3-cd)pyrene	1.7	U	1.7	0.67	ug/kg	100		77-124		
1-Methylnaphthalene	1.7	U	1.7	0.67	ug/kg	103		78-119		
2-Methylnaphthalene	1.7	U	1.7	0.67	ug/kg	102		78-121		
Naphthalene	1.7	U	1.7	0.67	ug/kg	92		79-113		
N-Nitrosodimethylamine	1.7	U	1.7	0.67	ug/kg	87		71-124		
Di-n-octylphthalate	18	U	18.	6.0	ug/kg	99		76-131		
Phenanthrene	1.7	U	1.7	0.67	ug/kg	90		72-110		
Pyrene	1.7	U	1.7	0.67	ug/kg	100		79-112		
Batch number: 13354WAH026	Sample number(s): 7315443									
Acenaphthene	0.050	U	0.050	0.010	ug/l	100	99	77-118	1	30
Acenaphthylene	0.050	U	0.050	0.010	ug/l	107	107	80-123	1	30
Anthracene	0.050	U	0.050	0.010	ug/l	101	99	78-123	2	30
Benzo(a)anthracene	0.050	U	0.050	0.010	ug/l	99	98	73-127	1	30
Benzo(a)pyrene	0.050	U	0.050	0.010	ug/l	99	97	72-120	2	30
Benzo(b)fluoranthene	0.050	U	0.050	0.010	ug/l	106	104	79-136	1	30
Benzo(e)pyrene	0.050	U	0.050	0.010	ug/l	93	91	70-130	1	30
Benzo(g,h,i)perylene	0.050	U	0.050	0.010	ug/l	103	102	64-130	1	30
Benzo(k)fluoranthene	0.050	U	0.050	0.010	ug/l	101	99	73-131	2	30
Butylbenzylphthalate	1.0	U	1.0	0.050	ug/l	99	96	40-138	3	30
Di-n-butylphthalate	0.16	J	1.0	0.050	ug/l	108	105	64-141	2	30
Chrysene	0.050	U	0.050	0.010	ug/l	99	98	76-125	1	30
Dibenz(a,h)anthracene	0.050	U	0.050	0.010	ug/l	102	96	58-131	6	30
Diethylphthalate	0.18	J	1.0	0.050	ug/l	111	108	64-128	3	30
Dimethylphthalate	1.0	U	1.0	0.050	ug/l	103	103	23-139	0	30

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1441366
Reported: 01/09/14 at 08:01 AM

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Bis(2-Ethylhexyl)phthalate	0.53	J	1.0	0.050	ug/l	121	124	70-143	3	30
Fluoranthene	0.050	U	0.050	0.010	ug/l	98	97	79-124	1	30
Fluorene	0.050	U	0.050	0.010	ug/l	104	103	74-115	1	30
Indeno(1,2,3-cd)pyrene	0.050	U	0.050	0.010	ug/l	101	97	62-130	4	30
1-Methylnaphthalene	0.050	U	0.050	0.010	ug/l	109	107	80-126	2	30
2-Methylnaphthalene	0.050	U	0.050	0.010	ug/l	110	109	81-124	1	30
Naphthalene	0.050	U	0.050	0.030	ug/l	103	101	75-120	2	30
N-Nitrosodimethylamine	0.050	U	0.050	0.010	ug/l	81	80	36-120	1	30
Di-n-octylphthalate	1.0	U	1.0	0.050	ug/l	92	78	57-145	17	30
Phenanthrene	0.050	U	0.050	0.030	ug/l	98	97	75-120	1	30
Pyrene	0.050	U	0.050	0.010	ug/l	101	103	71-130	2	30
Batch number: 13347A16B	Sample number(s): 7315438									
11a TPH by EPA 8015B GRO	1.0	U	1.0	0.2	mg/kg	83	87	67-119	4	30
Batch number: 13356A20A	Sample number(s): 7315442-7315443									
TPH-GRO S.CA water C5-C12	50	U	50.	20	ug/l	97	98	75-135	1	30
Batch number: 133520004A	Sample number(s): 7315443									
EFH (C12-C14)	0.10	U	0.10	0.050	mg/l	81	78	67-109	4	30
EFH (C15-C20)	0.10	U	0.10	0.050	mg/l	89	86	71-119	3	30
EFH (C21-C30)	0.10	U	0.10	0.050	mg/l	89	86	75-117	3	30
EFH (C30 - C40)	0.50	U	0.50	0.10	mg/l	78	73	44-134	7	30
EFH (C8-C11)	0.10	U	0.10	0.050	mg/l	64	61	55-86	5	30
Batch number: 133530025A	Sample number(s): 7315437-7315441									
EFH (C12-C14)	5.0	U	5.0	2.0	mg/kg	93		76-115		
EFH (C15-C20)	5.0	U	5.0	2.0	mg/kg	96		78-127		
EFH (C21-C30)	5.0	U	5.0	2.0	mg/kg	97		77-127		
EFH (C30-C40)	10	U	10.	4.0	mg/kg	76		44-134		
EFH (C8-C11)	5.0	U	5.0	2.0	mg/kg	76		60-115		
Batch number: 133530635003	Sample number(s): 7315443									
Aluminum	0.400	U	0.400	0.0828	mg/l	100	100	90-112	0	20
Antimony	0.0400	U	0.0400	0.0053	mg/l	105	105	88-111	1	20
Arsenic	0.0400	U	0.0400	0.0068	mg/l	102	102	90-113	0	20
Barium	0.0100	U	0.0100	0.00033	mg/l	103	102	90-110	1	20
Beryllium	0.0100	U	0.0100	0.00067	mg/l	100	99	90-111	0	20
Boron	0.100	U	0.100	0.0084	mg/l	97	97	90-110	0	20
Cadmium	0.0100	U	0.0100	0.00076	mg/l	104	103	90-112	1	20
Calcium	0.400	U	0.400	0.0334	mg/l	100	99	90-112	1	20
Chromium	0.0300	U	0.0300	0.0016	mg/l	102	101	90-110	1	20
Cobalt	0.0100	U	0.0100	0.0013	mg/l	104	103	90-110	1	20
Copper	0.0200	U	0.0200	0.0027	mg/l	104	103	90-112	1	20
Iron	0.400	U	0.400	0.0430	mg/l	104	99	90-112	4	20
Lead	0.0300	U	0.0300	0.0047	mg/l	106	105	88-110	1	20
Lithium	0.0400	U	0.0400	0.0047	mg/l	102	101	90-110	1	20
Magnesium	0.200	U	0.200	0.0167	mg/l	99	98	89-110	1	20
Manganese	0.0100	U	0.0100	0.00083	mg/l	104	102	90-110	1	20
Molybdenum	0.0200	U	0.0200	0.0017	mg/l	105	104	90-110	0	20
Nickel	0.0200	U	0.0200	0.0015	mg/l	106	105	90-111	1	20
Phosphorus	0.200	U	0.200	0.0418	mg/l	101	100	90-110	1	20
Potassium	1.00	U	1.00	0.0980	mg/l	96	96	90-110	0	20
Sodium	2.00	U	2.00	0.167	mg/l	98	98	87-114	1	20
Tin	0.0400	U	0.0400	0.0029	mg/l	102	102	90-110	0	20
Titanium	0.0200	U	0.0200	0.0017	mg/l	102	102	90-113	0	20

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(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1441366
Reported: 01/09/14 at 08:01 AM

Analysis Name	Blank Result	Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Vanadium	0.0100 U	0.0100	0.0020	mg/l	104	103	90-110	1	20
Zinc	0.0400 U	0.0400	0.0020	mg/l	100	100	90-110	0	20
Zirconium	0.100 U	0.100	0.0084	mg/l	101	101	90-110	0	20
Batch number: 133530639001A	Sample number(s): 7315443								
Silver	0.0010 U	0.0010	0.00011	mg/l	103	104	90-115	1	20
Strontium	0.0020 U	0.0020	0.00034	mg/l	103	106	90-110	3	20
Thallium	0.0010 U	0.0010	0.00015	mg/l	99	95	90-115	4	20
Batch number: 133530639001B	Sample number(s): 7315443								
Selenium	0.0040 U	0.0040	0.00050	mg/l	104	106	90-120	2	20
Batch number: 133540637001	Sample number(s): 7315437-7315441								
Aluminum	40.0 U	40.0	7.21	mg/kg	108		80-120		
Antimony	4.00 U	4.00	0.740	mg/kg	107		80-120		
Arsenic	4.00 U	4.00	0.700	mg/kg	106		80-120		
Barium	1.00 U	1.00	0.0330	mg/kg	104		80-120		
Beryllium	1.00 U	1.00	0.0670	mg/kg	102		80-120		
Boron	10.0 U	10.0	0.840	mg/kg	100		80-120		
Cadmium	1.00 U	1.00	0.0760	mg/kg	106		80-120		
Calcium	14.3 J	20.0	3.34	mg/kg	106		80-120		
Chromium	3.00 U	3.00	0.160	mg/kg	103		80-120		
Cobalt	1.00 U	1.00	0.0990	mg/kg	107		80-120		
Copper	2.00 U	2.00	0.290	mg/kg	104		80-120		
Iron	40.0 U	40.0	3.62	mg/kg	104		80-120		
Lead	3.00 U	3.00	0.500	mg/kg	112		80-120		
Lithium	4.0 U	4.0	0.34	mg/kg	101		80-120		
Magnesium	10.0 U	10.0	1.67	mg/kg	103		80-120		
Manganese	1.00 U	1.00	0.0830	mg/kg	104		80-120		
Molybdenum	2.00 U	2.00	0.170	mg/kg	104		80-120		
Nickel	2.00 U	2.00	0.130	mg/kg	110		80-120		
Phosphorus	10.0 U	10.0	2.89	mg/kg	106		80-120		
Potassium	100 U	100.	8.34	mg/kg	95		80-120		
Sodium	100 U	100.	16.7	mg/kg	95		80-120		
Tin	1.62 J	10.0	0.220	mg/kg	103		80-120		
Titanium	1.00 U	1.00	0.170	mg/kg	105		80-120		
Vanadium	1.00 U	1.00	0.130	mg/kg	100		80-120		
Zinc	0.768 J	4.00	0.200	mg/kg	106		80-120		
Zirconium	5.00 U	5.00	0.840	mg/kg	100		80-120		
Batch number: 133540637001A	Sample number(s): 7315437-7315441								
Silver	0.200 U	0.200	0.0260	mg/kg	111		80-120		
Strontium	0.111 J	0.400	0.0680	mg/kg	115		80-120		
Thallium	0.200 U	0.200	0.0300	mg/kg	112		80-120		
Batch number: 133540637001B	Sample number(s): 7315437-7315441								
Selenium	0.400 U	0.400	0.100	mg/kg	118		80-120		
Batch number: 133540638001	Sample number(s): 7315437-7315441								
3a Mercury 7471A	0.0167 U	0.0167	0.0100	mg/kg	100		85-120		
Batch number: 133605713003	Sample number(s): 7315443								
3b Mercury 7470A	0.00020 U	0.00020	0.00006 0	mg/l	107	104	90-115	3	20

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1441366
Reported: 01/09/14 at 08:01 AM

Analysis Name	Blank Result	Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 13351039402B	Sample number(s): 7315437-7315441								
15a pH by 9045D					101		95-105		
Batch number: 13352003202A	Sample number(s): 7315443								
28b pH (9040B and 9040C)					100		90-110		
Batch number: 13354162401B	Sample number(s): 7315437-7315441								
14a Moisture Content by 160.3					100		80-120		

Analysis Name	Blank Result	Blank MRL**	Blank EDL	Report Units	OPR %REC	OPRD %REC	OPR/OPRD Limits	RPD	RPD Max
Batch number: 13354003	Sample number(s): 7315443								
2378-TCDD	0.513 J	2.00	0.492	pg/l	101		60-150		
12378-PeCDD	0.520 J	10.0	0.320	pg/l	101		60-150		
123478-HxCDD	0.265 J	10.0	0.222	pg/l	103		60-150		
123678-HxCDD	10.0 U	10.0	0.230	pg/l	105		60-150		
123789-HxCDD	0.528 J	10.0	0.226	pg/l	102		60-150		
1234678-HpCDD	1.14 J	10.0	0.219	pg/l	102		60-150		
OCDD	2.27 J	20.0	0.249	pg/l	102		60-150		
2378-TCDF	0.357 J	2.00	0.279	pg/l	100		60-150		
12378-PeCDF	0.464 J	10.0	0.185	pg/l	104		60-150		
23478-PeCDF	0.499 J	10.0	0.175	pg/l	104		60-150		
123478-HxCDF	0.275 J	10.0	0.171	pg/l	105		60-150		
123678-HxCDF	0.463 J	10.0	0.163	pg/l	105		60-150		
123789-HxCDF	0.645 J	10.0	0.187	pg/l	105		60-150		
234678-HxCDF	0.341 J	10.0	0.164	pg/l	107		60-150		
1234678-HpCDF	0.673 J	10.0	0.0679	pg/l	103		60-150		
1234789-HpCDF	0.654 J	10.0	0.0848	pg/l	105		60-150		
OCDF	1.88 J	20.0	0.336	pg/l	100		60-150		
Batch number: 13355001	Sample number(s): 7315437-7315441								
2378-TCDD	1.00 U	1.00	0.0563	ng/kg	100		67-158		
12378-PeCDD	0.112 J	5.00	0.0345	ng/kg	103		70-142		
123478-HxCDD	0.0633 J	5.00	0.0237	ng/kg	105		70-164		
123678-HxCDD	0.0646 J	5.00	0.0259	ng/kg	106		76-134		
123789-HxCDD	0.0480 J	5.00	0.0231	ng/kg	104		64-162		
1234678-HpCDD	0.0769 J	5.00	0.0264	ng/kg	102		70-140		
OCDD	0.301 J	10.0	0.0207	ng/kg	105		78-144		
2378-TCDF	1.00 U	1.00	0.0391	ng/kg	108		75-158		
12378-PeCDF	0.0691 J	5.00	0.0202	ng/kg	106		80-134		
23478-PeCDF	0.0714 J	5.00	0.0188	ng/kg	107		68-160		
123478-HxCDF	0.0490 J	5.00	0.0166	ng/kg	110		72-134		
123678-HxCDF	0.0663 J	5.00	0.0165	ng/kg	113		84-130		
123789-HxCDF	0.0985 J	5.00	0.0174	ng/kg	122		78-130		
234678-HxCDF	0.0478 J	5.00	0.0161	ng/kg	112		70-156		
1234678-HpCDF	0.105 J	5.00	0.0107	ng/kg	113		82-122		
1234789-HpCDF	0.0601 J	5.00	0.0129	ng/kg	109		78-138		
OCDF	0.141 J	10.0	0.0321	ng/kg	108		63-170		
Batch number: 13354003	Sample number(s): 7315443								
TEQ WHO 2005 - EDLx0.0	0.0271			pg/l					
Batch number: 13355001	Sample number(s): 7315437-7315441								

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1441366
Reported: 01/09/14 at 08:01 AM

Analysis Name	Blank Result	Blank MRL**	Blank EDL	Report Units	OPR %REC	OPRD %REC	OPR/OPRD Limits	RPD	RPD Max
TEQ WHO 2005 - EDLx0.0	0.0438			ng/kg					

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc		DUP Conc		DUP RPD	Dup RPD Max
Batch number: 13354SLB026	Sample number(s): 7315437-7315441 UNSPK: P312462										
Acenaphthene	84	79	48-127	7	30						
Acenaphthylene	85	80	49-121	6	30						
Anthracene	86	82	52-126	5	30						
Benzo(a)anthracene	91	87	44-143	4	30						
Benzo(a)pyrene	88	86	44-140	3	30						
Benzo(b)fluoranthene	95	92	26-142	2	30						
Benzo(e)pyrene	89	85	70-130	4	30						
Benzo(g,h,i)perylene	53	53	33-141	1	30						
Benzo(k)fluoranthene	101	96	54-142	5	30						
Butylbenzylphthalate	96	92	49-151	4	30						
Di-n-butylphthalate	85	81	52-147	4	30						
Chrysene	91	88	29-148	4	30						
Dibenz(a,h)anthracene	61	60	20-137	1	30						
Diethylphthalate	91	87	43-145	5	30						
Dimethylphthalate	94	89	58-129	6	30						
Bis(2-Ethylhexyl)phthalate	99	92	39-167	8	30						
Fluoranthene	86	82	40-148	4	30						
Fluorene	90	85	51-137	6	30						
Indeno(1,2,3-cd)pyrene	62	61	17-136	1	30						
1-Methylnaphthalene	99	92	50-131	7	30						
2-Methylnaphthalene	98	92	35-152	7	30						
Naphthalene	87	81	31-148	6	30						
N-Nitrosodimethylamine	83	78	48-113	6	30						
Di-n-octylphthalate	117	111	52-162	6	30						
Phenanthrene	85	82	29-142	4	30						
Pyrene	88	84	26-143	4	30						
Batch number: 133530025A	Sample number(s): 7315437-7315441 UNSPK: P312462										
EFH (C12-C14)	95	93	49-123	1	20						
EFH (C15-C20)	115	113	49-123	0	20						
EFH (C21-C30)	49	83	49-123	19	20						
EFH (C30-C40)	28*	74	49-123	19	20						
EFH (C8-C11)	84	82	49-123	2	20						
Batch number: 133540637001	Sample number(s): 7315437-7315441 UNSPK: P312462 BKG: P312462										
Aluminum	1159 (2)	1359 (2)	75-125	3	20	9,320		9,610		3	20
Antimony	66*	57*	75-125	16	20	3.85	U	3.92	U	0 (1)	20
Arsenic	105	108	75-125	3	20	2.73	J	2.37	J	14 (1)	20

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1441366
Reported: 01/09/14 at 08:01 AM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Barium	98	106	75-125	6	20	62.6	62.4	0	20
Beryllium	102	100	75-125	2	20	0.346 J	0.355 J	2 (1)	20
Boron	93	90	75-125	3	20	8.00 J	7.40 J	8 (1)	20
Cadmium	99	101	75-125	2	20	0.447 J	0.475 J	6 (1)	20
Calcium	133 (2)	97 (2)	75-125	6	20	2,020	2,030	1	20
Chromium	97	101	75-125	3	20	13.3	13.2	1 (1)	20
Cobalt	97	98	75-125	1	20	4.29	4.41	3 (1)	20
Copper	94	93	75-125	1	20	3.66	3.35	9 (1)	20
Iron	600 (2)	1470 (2)	75-125	5	20	16,900	17,400	3	20
Lead	100	98	75-125	2	20	6.61	6.85	4 (1)	20
Lithium	103	103	75-125	0	20	24.5	27.2	10	20
Magnesium	168 (2)	299 (2)	75-125	6	20	3,780	3,870	2	20
Manganese	118 (2)	99 (2)	75-125	3	20	266	277	4	20
Molybdenum	95	95	75-125	1	20	0.316 J	0.209 J	41* (1)	20
Nickel	101	103	75-125	2	20	7.83	8.15	4 (1)	20
Phosphorus	46*	47*	75-125	0	20	371	327	13	20
Potassium	108	125	75-125	4	20	2,670	2,870	7	20
Sodium	94	94	75-125	0	20	51.9 J	56.5 J	9 (1)	20
Tin	92	92	75-125	0	20	2.24 J	2.31 J	3 (1)	20
Titanium	327 (2)	323 (2)	75-125	0	20	839	934	11	20
Vanadium	102	103	75-125	0	20	26.3	26.6	1	20
Zinc	100	108	75-125	4	20	49.7	52.7	6	20
Zirconium	94	95	75-125	1	20	0.844 J	1.05 J	22* (1)	20
Batch number: 133540637001A	Sample number(s): 7315437-7315441 UNSPK: P312462 BKG: P312462								
Silver	103	108	75-125	5	20	0.0410 J	0.0495 J	19 (1)	20
Strontium	98	97	75-125	1	20	9.48	9.43	1	20
Thallium	117	119	75-125	1	20	0.210	0.260	21* (1)	20
Batch number: 133540637001B	Sample number(s): 7315437-7315441 UNSPK: P312462 BKG: P312462								
Selenium	110	111	75-125	1	20	0.273 J	0.268 J	2 (1)	20
Batch number: 133540638001	Sample number(s): 7315437-7315441 UNSPK: P312462 BKG: P312462								
3a Mercury 7471A	102	99	65-135	2	20	0.0105 J	0.0161 U	200* (1)	20
Batch number: 13351039402B	Sample number(s): 7315437-7315441 BKG: P313703								
15a pH by 9045D						6.62	6.62	0	3
Batch number: 13352003202A	Sample number(s): 7315443 BKG: P315001								
28b pH (9040B and 9040C)						8.1	8.1	1	3
Batch number: 13354162401B	Sample number(s): 7315437-7315441 BKG: 7315439								
14a Moisture Content by 160.3						3.5	3.6	2	20

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1441366
Reported: 01/09/14 at 08:01 AM

Surrogate Quality Control

Analysis Name: 7a SVOC SIM EPA 8270D
Batch number: 13354SLB026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
7315437	77	76	95
7315438	75	76	91
7315439	74	77	95
7315440	63	62	78
7315441	59	58*	74
Blank	81	82	101
LCS	79	81	97
MS	78	74	94
MSD	75	73	88
Limits:	54-129	59-125	61-125

Analysis Name: 7b SVOC SIM EPA 8270D
Batch number: 13354WAH026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
7315443	102	101	107
Blank	100	104	102
LCS	106	108	117
LCSD	100	102	111
Limits:	44-137	62-141	51-136

Analysis Name: 11a TPH by EPA 8015B GRO
Batch number: 13347A16B

	Trifluorotoluene-F
7315438	86
Blank	89
LCS	96
LCSD	99
Limits:	50-142

Analysis Name: 11b TPH by EPA 8015B GRO
Batch number: 13356A20A

	Trifluorotoluene-F
7315442	79
7315443	78
Blank	77
LCS	82
LCSD	82
Limits:	63-135

Analysis Name: 10b TPH by EPA 8015B (DRO)
Batch number: 133520004A

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Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1441366
Reported: 01/09/14 at 08:01 AM

Surrogate Quality Control

	Chlorobenzene	Orthoterphenyl
7315443	85	78
Blank	81	79
LCS	85	87
LCSD	82	83
Limits:	45-126	69-119

Analysis Name: 10a TPH by EPA 8015B (DRO)
Batch number: 133530025A

	Chlorobenzene	Orthoterphenyl
7315437	103	87
7315438	105	85
7315439	98	82
7315440	112	90
7315441	100	84
Blank	105	87
LCS	109	96
MS	113	93
MSD	113	93
Limits:	37-125	66-123

Analysis Name: 17b Dioxin/Furan by EPA 1613B
Batch number: 13354003

	13C12-2378-TCDD	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF	13C12-234678-HxCDF	13C12-123789-HxCDF
7315443	39	38	47	48	47	45
Blank	54	56	72	74	71	75
OPR	64	65	79	78	77	74
Limits:	25-164	21-178	26-152	26-123	28-136	29-147

	13C12-1234678-HpCDF	13C12-1234789-HpCDF	13C12-OCDF	13C12-12378-PeCDD	13C12-123478-HxCDD	13C12-123678-HxCDD
7315443	44	40	39	37	46	45
Blank	74	66	64	53	71	71
OPR	72	67	67	63	75	75
Limits:	28-143	26-138	17-157	25-181	32-141	28-130

	13C12-123789-HxCDD	13C12-1234678-HpCDD	13C12-OCDD	13C12-2378-TCDF	13C12-12378-PeCDF
7315443	44	42	37	39	38
Blank	69	69	62	54	58
OPR	74	70	65	63	65
Limits:	28-130	23-140	17-157	24-169	24-185

Analysis Name: 23a Dioxin/Furan by EPA 1613B
Batch number: 13355001

	13C12-2378-TCDD	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF	13C12-234678-HxCDF	13C12-123789-HxCDF
7315437	66	71	82	82	86	82

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1441366
Reported: 01/09/14 at 08:01 AM

Surrogate Quality Control

7315438	70	72	83	84	86	92
7315439	62	64	73	73	77	78
7315440	66	66	77	77	80	83
7315441	70	70	82	84	84	82
Blank	52	55	68	69	70	73
OPR	29	33	36	36	37	25
Limits:	25-164	21-178	26-152	26-123	28-136	29-147

	13C12-1234678-HpCDF	13C12-1234789-HpCDF	13C12-OCDF	13C12-12378-PeCDD	13C12-123478-HxCDD	13C12-123678-HxCDD
7315437	84	80	77	71	83	80
7315438	88	89	83	71	84	87
7315439	75	70	70	64	73	74
7315440	79	73	76	66	78	78
7315441	85	81	80	70	83	86
Blank	73	72	72	56	70	69
OPR	37	35	34	32	37	37
Limits:	28-143	26-138	17-157	25-181	32-141	28-130

	13C12-123789-HxCDD	13C12-1234678-HpCDD	13C12-OCDD	13C12-2378-TCDF	13C12-12378-PeCDF
7315437	81	82	78	65	69
7315438	86	88	83	69	70
7315439	73	71	66	60	62
7315440	78	74	77	63	65
7315441	83	83	81	65	69
Blank	70	72	73	50	53
OPR	36	37	35	27	30
Limits:	28-130	23-140	17-157	24-169	24-185

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.

SSFL Phase 3 Chain of Custody

A-13013
G-144/366
S-7315437-43

CDM Smith

DateShipped: 12/16/2013
CarrierName: FedEx
AirbillNo: 797420630910

Contact Name: Pam Hartman
Contact Phone: (818)466-8007

COC No: 20131216-06
Cooler #: 2
Lab: Lancaster
Lab Phone: 717-556-7259
Lab Address: 2425 New Holland Pike, Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Calc Nitrate, Nitrite, TKN	TOC SM 5310B	Grain Size ASTM 2488-09a	Other Analysis/Notes
SL-517-NBZ-SB-0.0-0.5	12/16/13 13:40	SO	None	2 - SS-Sleeve	10 day	X	X					X		X												X														
SL-517-NBZ-SB-0.0-0.5	12/16/13 13:40	SO	None	1 - 4 oz glass	10 day													X																						
SL-517-NBZ-SB-2.0-3.0	12/16/13 14:20	SO	None	2 - SS-Sleeve	10 day	X	X					X		X												X														
SL-517-NBZ-SB-2.0-3.0	12/16/13 14:20	SO	None	1 - 16 oz glass	10 day													X																						
SL-517-NBZ-SB-2.0-3.0	12/16/13 14:20	SO	None	2 - Encore	10 day																				X															
SL-518-NBZ-SB-0.0-0.5	12/16/13 11:25	SO	None	2 - SS-Sleeve	10 day	X	X					X		X												X														
SL-518-NBZ-SB-0.0-0.5	12/16/13 11:25	SO	None	1 - 4 oz glass	10 day													X																						
SL-519-NBZ-SB-0.0-0.5	12/16/13 12:10	SO	None	2 - SS-Sleeve	10 day	X	X					X		X												X														
SL-519-NBZ-SB-0.0-0.5	12/16/13 12:10	SO	None	1 - 4 oz glass	10 day													X																						
SL-520-NBZ-SB-0.0-0.5	12/16/13 10:30	SO	None	2 - SS-Sleeve	10 day	X	X					X		X												X														
SL-520-NBZ-SB-0.0-0.5	12/16/13 10:30	SO	None	1 - 4 oz glass	10 day													X																						
TB2-121613	12/16/13 08:00	WQ	HCl	3 - 40 mL Vial	10 day																				X															

Special Instructions:

Sampler:

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
[illegible]	12/16/2013	1600									
									[illegible]	121713	1010

SSFL Phase 3 Chain of Custody

CDM Smith

DateShipped: 12/16/2013 A-13013 G-1441366

CarrierName: FedEx S-7315437-43

AirbillNo: 797420630910

Contact Name: Pam Hartman

Contact Phone: (818)466-8007

COC No: 20131216-01

Cooler #: 1

Lab: Lancaster

Lab Phone: 717-556-7259

Lab Address: 2425 New Holland Pike, Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Calc Nitrate, Nitrite, TKN	TOC SM 5310B	Grain Size ASTM 2488-09a	Other Analysis/Notes
EB2-121613	12/16/13 15:30	WQ	HNO3 pH<2	1 - 250 mL Poly	10 day	X		X																																EB2-121613 is NBZ
EB2-121613	12/16/13 15:30	WQ	None	1 - 250 mL Amber	10 day							X																												
EB2-121613	12/16/13 15:30	WQ	None	2 - 1 L Amber	10 day									X																										
EB2-121613	12/16/13 15:30	WQ	None	1 - 250 mL Poly	10 day														X																					
EB2-121613	12/16/13 15:30	WQ	HCl	2 - 1 L Amber	10 day																					X														
EB2-121613	12/16/13 15:30	WQ	HCl	3 - 40 mL Vial	10 day																				X															

Special Instructions:

Sampler: [signature]

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
[signature]	12/16/		2013	1600							
									[signature]	12/17/13	1010

COC Rev 3

COC: 20131216-01, Page 1 of 1

1 of 1

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G-1441366

Environmental Sample Administration
Receipt Documentation Log

Client/Project: CDM

Date of Receipt: 121713

Time of Receipt: 1010

Source Code: 50-1

Shipping Container Sealed: (YES) NO

Custody Seal Present * : (YES) NO

* Custody seal was intact unless otherwise noted in the discrepancy section

Package: (Chilled) Not Chilled

Temperature of Shipping Containers							
Cooler #	Thermometer ID	Temperature (°C)	Temp Bottle (TB) or Surface Temp (ST)	Wet Ice (WI) or Dry Ice (DI) or Ice Packs (IP)	Ice Present? Y/N	Loose (L) Bagged Ice (B) or NA	Comments
1	DT146	0.7	TB	WI	Y	B	
2	↓	0.5	↓	↓	↓	↓	
3							
4							
5							
6							

Number of Trip Blanks received NOT listed on chain of custody: 0

Paperwork Discrepancy/Unpacking Problems:

Unpacker Signature/Emp#: Brianely Barely 2299 **Date/Time:** 121713 1048

Issued by Dept. 6042 Management

2174.06

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Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	**BMQL**	Below Minimum Quantitation Level
N.D.	none detected	**MPN**	Most Probable Number
TNTC	Too Numerous To Count	**CP Units**	cobalt-chloroplatinate units
IU	International Units	**NTU**	nephelometric turbidity units
umhos/cm	micromhos/cm	**ng**	nanogram(s)
C	degrees Celsius	**F**	degrees Fahrenheit
meq	milliequivalents	**lb.**	pound(s)
g	gram(s)	**kg**	kilogram(s)
µg	microgram(s)	**mg**	milligram(s)
mL	milliliter(s)	**L**	liter(s)
m3	cubic meter(s)	**µL**	microliter(s)
		pg/L	picogram/liter

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Data Qualifiers:

C – result confirmed by reanalysis.

J - estimated value – The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
C	Pesticide result confirmed by GC/MS
D	Compound quantitated on a diluted sample
E	Concentration exceeds the calibration range of the instrument
N	Presumptive evidence of a compound (TICs only)
P	Concentration difference between primary and confirmation columns >25%
U	Compound was not detected
X,Y,Z	Defined in case narrative

Inorganic Qualifiers

B	Value is <CRDL, but ≥IDL
E	Estimated due to interference
M	Duplicate injection precision not met
N	Spike sample not within control limits
S	Method of standard additions (MSA) used for calculation
U	Compound was not detected
W	Post digestion spike out of control limits
*****	Duplicate analysis not within control limits
+	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as “analyze immediately” are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

January 06, 2014

Project: SSFL Phase 3 Sampling

Submittal Date: 12/18/2013
Group Number: 1441693
SDG: PH157
PO Number: 1204-002-001-AL
State of Sample Origin: CA

Client Sample Description	Lancaster Labs (LL) #
SL-551-NBZ-SB-0.0-0.5 Soil	7316781

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO	Eurofins Lancaster Labs Env	Attn: Nicole Maljovec
ELECTRONIC COPY TO	Data Package Group	

Respectfully Submitted,

Nicole L. Maljovec
Principal Specialist Group Leader

(717) 556-7259

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Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: SL-551-NBZ-SB-0.0-0.5 Soil
SSFL Phase 3 Subarea NBZ

LL Sample # SW 7316781
LL Group # 1441693
Account # 13013

Project Name: SSFL Phase 3 Sampling

Collected: 12/17/2013 11:25

Submitted: 12/18/2013 10:45
Reported: 01/06/2014 15:54

CDM Federal Programs Corp.
3201 Jermantown Road
Suite 400
Fairfax VA 22030

55100 SDG#: PH157-01*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Limit of Quantitation*	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**ug/kg**		**ug/kg**	**ug/kg**	
12969	Acenaphthene	83-32-9	1.7	U	1.7	0.68	1
12969	Acenaphthylene	208-96-8	1.7	U	1.7	0.34	1
12969	Anthracene	120-12-7	1.7	U	1.7	0.34	1
12969	Benzo(a)anthracene	56-55-3	1.3	J	1.7	0.68	1
12969	Benzo(a)pyrene	50-32-8	0.96	J	1.7	0.68	1
12969	Benzo(b)fluoranthene	205-99-2	2.4		1.7	0.68	1
12969	Benzo(e)pyrene	192-97-2	17	U	17	3.4	1
12969	Benzo(g,h,i)perylene	191-24-2	0.88	J	1.7	0.68	1
12969	Benzo(k)fluoranthene	207-08-9	0.88	J	1.7	0.68	1
12969	Butylbenzylphthalate	85-68-7	13	J	18	6.1	1
12969	Di-n-butylphthalate	84-74-2	18	U	18	6.1	1
12969	Chrysene	218-01-9	2.7		1.7	0.34	1
12969	Dibenz(a,h)anthracene	53-70-3	1.7	U	1.7	0.68	1
12969	Diethylphthalate	84-66-2	18	U	18	6.1	1
12969	Dimethylphthalate	131-11-3	18	U	18	6.1	1
12969	Bis(2-Ethylhexyl)phthalate	117-81-7	20		18	6.1	1
12969	Fluoranthene	206-44-0	2.2		1.7	0.68	1
12969	Fluorene	86-73-7	1.7	U	1.7	0.68	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	1.7	U	1.7	0.68	1
12969	1-Methylnaphthalene	90-12-0	0.86	J	1.7	0.68	1
12969	2-Methylnaphthalene	91-57-6	1.1	J	1.7	0.68	1
12969	Naphthalene	91-20-3	2.1		1.7	0.68	1
12969	N-Nitrosodimethylamine	62-75-9	1.7	U	1.7	0.68	1
12969	Di-n-octylphthalate	117-84-0	18	U	18	6.1	1
12969	Phenanthrene	85-01-8	1.5	J	1.7	0.68	1
12969	Pyrene	129-00-0	2.0		1.7	0.68	1
Wet Chemistry	**EPA 160.3 modified**		**%**		**%**	**%**	
11624	14a Moisture Content by 160.3	n.a.	3.1		0.10	0.10	1

Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12969	7a SVOC SIM EPA 8270D	SW-846 8270D SIM	1	13354SLB026	01/03/2014 04:50	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	13354SLB026	12/23/2013 06:30	Olivia Arosemena	1
11624	14a Moisture Content by 160.3	EPA 160.3 modified	1	13354162401B	12/20/2013 23:00	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1441693
Reported: 01/06/14 at 03:54 PM

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

Analysis Name	Blank Result		Blank LOQ**	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 13354SLB026	Sample number(s): 7316781									
Acenaphthene	1.7	U	1.7	0.67	ug/kg	88		77-116		
Acenaphthylene	1.7	U	1.7	0.33	ug/kg	90		78-120		
Anthracene	1.7	U	1.7	0.33	ug/kg	91		80-116		
Benzo(a)anthracene	1.7	U	1.7	0.67	ug/kg	101		83-119		
Benzo(a)pyrene	1.7	U	1.7	0.67	ug/kg	100		80-122		
Benzo(b)fluoranthene	1.7	U	1.7	0.67	ug/kg	113		82-135		
Benzo(e)pyrene	17	U	17.	3.3	ug/kg	94		81-110		
Benzo(g,h,i)perylene	1.7	U	1.7	0.67	ug/kg	100		79-121		
Benzo(k)fluoranthene	1.7	U	1.7	0.67	ug/kg	95		79-123		
Butylbenzylphthalate	18	U	18.	6.0	ug/kg	96		77-123		
Di-n-butylphthalate	18	U	18.	6.0	ug/kg	89		78-125		
Chrysene	1.7	U	1.7	0.33	ug/kg	102		84-113		
Dibenz(a,h)anthracene	1.7	U	1.7	0.67	ug/kg	96		78-124		
Diethylphthalate	18	U	18.	6.0	ug/kg	94		77-130		
Dimethylphthalate	18	U	18.	6.0	ug/kg	97		85-122		
Bis(2-Ethylhexyl)phthalate	18	U	18.	6.0	ug/kg	94		79-121		
Fluoranthene	1.7	U	1.7	0.67	ug/kg	97		85-116		
Fluorene	1.7	U	1.7	0.67	ug/kg	95		81-126		
Indeno(1,2,3-cd)pyrene	1.7	U	1.7	0.67	ug/kg	100		77-124		
1-Methylnaphthalene	1.7	U	1.7	0.67	ug/kg	103		78-119		
2-Methylnaphthalene	1.7	U	1.7	0.67	ug/kg	102		78-121		
Naphthalene	1.7	U	1.7	0.67	ug/kg	92		79-113		
N-Nitrosodimethylamine	1.7	U	1.7	0.67	ug/kg	87		71-124		
Di-n-octylphthalate	18	U	18.	6.0	ug/kg	99		76-131		
Phenanthrene	1.7	U	1.7	0.67	ug/kg	90		72-110		
Pyrene	1.7	U	1.7	0.67	ug/kg	100		79-112		
Batch number: 13354162401B	Sample number(s): 7316781									
14a Moisture Content by 160.3						100		80-120		

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 13354SLB026	Sample number(s): 7316781 UNSPK: P312462								
Acenaphthene	84	79	48-127	7	30				
Acenaphthylene	85	80	49-121	6	30				

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp. Group Number: 1441693
Reported: 01/06/14 at 03:54 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Anthracene	86	82	52-126	5	30				
Benzo(a)anthracene	91	87	44-143	4	30				
Benzo(a)pyrene	88	86	44-140	3	30				
Benzo(b)fluoranthene	95	92	26-142	2	30				
Benzo(e)pyrene	89	85	70-130	4	30				
Benzo(g,h,i)perylene	53	53	33-141	1	30				
Benzo(k)fluoranthene	101	96	54-142	5	30				
Butylbenzylphthalate	96	92	49-151	4	30				
Di-n-butylphthalate	85	81	52-147	4	30				
Chrysene	91	88	29-148	4	30				
Dibenz(a,h)anthracene	61	60	20-137	1	30				
Diethylphthalate	91	87	43-145	5	30				
Dimethylphthalate	94	89	58-129	6	30				
Bis(2-Ethylhexyl)phthalate	99	92	39-167	8	30				
Fluoranthene	86	82	40-148	4	30				
Fluorene	90	85	51-137	6	30				
Indeno(1,2,3-cd)pyrene	62	61	17-136	1	30				
1-Methylnaphthalene	99	92	50-131	7	30				
2-Methylnaphthalene	98	92	35-152	7	30				
Naphthalene	87	81	31-148	6	30				
N-Nitrosodimethylamine	83	78	48-113	6	30				
Di-n-octylphthalate	117	111	52-162	6	30				
Phenanthrene	85	82	29-142	4	30				
Pyrene	88	84	26-143	4	30				
Batch number: 13354162401B Sample number(s): 7316781 BKG: P315439									
14a Moisture Content by 160.3						3.5	3.6	2	20

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 7a SVOC SIM EPA 8270D
Batch number: 13354SLB026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
7316781	72	72	92
Blank	81	82	101
LCS	79	81	97
MS	78	74	94
MSD	75	73	88
Limits:	54-129	59-125	61-125

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

SSFL Phase 3 Chain of Custody

A-13013

GA-1441693

SG-7316781

CDM Smith

DateShipped: 12/17/2013

CarrierName: FedEx

AirbillNo: 797427634817

Contact Name: Pam Hartman

Contact Phone: (818)466-8007

COC No: 20131217-01

Cooler #: 1

Lab: Lancaster

Lab Phone: 717-556-7259

Lab Address: 2425 New Holland Pike, Lancaster, PA 17601

Sample	Date/ Time	Matrix	Preserv.	Type/No of Containers	Turn Around Time	Metals 6010 and 6020	Mercury 7471 (Soil)	Mercury 7470 (Water)	Fluoride 300.0/9056	SVOC 8270	TIC 8270	PAHs 8270 SIM	1,4 Dioxane 8270 SIM	Dioxins 1613	PCBs/PCTs 8082	Perchlorate 314.0/331	Perchlorate Confirm 6850/6860	pH 9045 (Soil)	pH 9040 (Water)	Hex Cr 7196/7199	Herbicides 8151	Pesticides 8081	VOCs 8260	1,4 Dioxane 8260 SIM	TPH-GRO 8015	TPH-EFH 8015	Glycols 8015	Alcohols 8015	Terphenyls 8015	Nitrates 300.0/9056	Energetics 8330	Cyanide 9012	Formaldehyde 8315	NDMA 1625	Organotin	Methyl Mercury 1630	Calc.Nitrate_Nitrite_TKN	TOC SM 5310B	Grain Size ASTM 2488-09a	Other Analysis/Notes
SL-551-NBZ-SB-0.0-0.5	12/17/13 11:25	SO	None	1 - SS-Sleeve	10 day							X																												

Special Instructions:

Sampler:

Relinquished by	Date	Time	Received by	Date	Time	Relinquished by	Date	Time	Received by	Date	Time
[illegible]	12/17/2013	1600									
									[illegible]	12/18/13	1045

COC Rev 3

COC 20131217-01, Page 1 of 1

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G-1441693

Environmental Sample Administration
Receipt Documentation Log

Client/Project: CDM Smith

Date of Receipt: 12/18/13

Time of Receipt: 1045

Source Code: 50-1

Shipping Container Sealed: YES NO

Custody Seal Present * : YES NO

* Custody seal was intact unless otherwise noted in the discrepancy section

Package: Chilled Not Chilled

Temperature of Shipping Containers							
Cooler #	Thermometer ID	Temperature (°C)	Temp Bottle (TB) or Surface Temp (ST)	Wet Ice (WI) or Dry Ice (DI) or Ice Packs (IP)	Ice Present? Y/N	Loose (L) Bagged Ice (B) or NA	Comments
1	DT146	0.6	TB	WI	Y	B	
2							
3							
4							
5							
6							

Number of Trip Blanks received NOT listed on chain of custody: Ø

Paperwork Discrepancy/Unpacking Problems:

Unpacker Signature/Emp#: [signature] 3647 **Date/Time:** 12/18/13 1126

Issued by Dept. 6042 Management

2174.06

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Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	**BMQL**	Below Minimum Quantitation Level
N.D.	none detected	**MPN**	Most Probable Number
TNTC	Too Numerous To Count	**CP Units**	cobalt-chloroplatinate units
IU	International Units	**NTU**	nephelometric turbidity units
umhos/cm	micromhos/cm	**ng**	nanogram(s)
C	degrees Celsius	**F**	degrees Fahrenheit
meq	milliequivalents	**lb.**	pound(s)
g	gram(s)	**kg**	kilogram(s)
µg	microgram(s)	**mg**	milligram(s)
mL	milliliter(s)	**L**	liter(s)
m3	cubic meter(s)	**µL**	microliter(s)
		pg/L	picogram/liter

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Data Qualifiers:

C – result confirmed by reanalysis.

J - estimated value – The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	**B**	Value is <CRDL, but ≥IDL
B	Analyte was also detected in the blank	**E**	Estimated due to interference
C	Pesticide result confirmed by GC/MS	**M**	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	**N**	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	**S**	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	**U**	Compound was not detected
P	Concentration difference between primary and confirmation columns >25%	**W**	Post digestion spike out of control limits
U	Compound was not detected	*****	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	**+**	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as “analyze immediately” are not performed within 15 minutes.

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Appendix C
Data Usability Assessment Report and Data Validation Reports
(On CD)

Appendix C
Data Usability Assessment Report

The purpose of this data usability and assessment report (DUAR) is to summarize the data validation performed on the data sets for Subarea 7 and NBZ samples collected, and determine whether the sample results meet the Data Quality Objectives (DQOs) outlined in the *Master Field Sampling Plan for Chemical Data Gap Investigation Sampling at Area IV, Santa Susana Field Laboratory, Ventura County, California* (CDM Federal Programs Corporation [CDM Smith] 2012a) (Master FSP) and *Addendum No. 6 to Master Field Sampling Plan for Chemical Data Gap Investigation, Phase 3 Soil Chemical Sampling at Area IV, Santa Susana Field Laboratory, Ventura County, California, Subarea 7* (CDM Smith 2012b) (Addendum to the Master FSP), and *Addendum No. 9 to Master Field Sampling Plan for Chemical Data Gap Investigation, Phase 3 Soil Chemical Sampling at Northern Buffer Zone, Santa Susana Field Laboratory, Ventura County, California, Subarea 5D* (CDM Smith 2013) (Addendum to the Master FSP).

The Master FSP is Appendix A of *Work Plan for Chemical Data Gap Investigation, Phase 3 Soil Chemical Sampling at Area IV, Santa Susana Field Laboratory, Ventura County, California* (CDM Smith 2012b) (Work Plan), which also includes Appendix B, Quality Assurance Project Plan (QAPP); Appendix C, Worker Safety and Health Program; and Appendix D, Standard Operating Procedures (SOPs).

C.1 Usability Summary

For this data usability assessment, 18 data sets were reviewed for Subarea 7 and 11 data sets were reviewed for NBZ. A data set consists of 20 or fewer samples grouped together by analytical method for analyses depending on the time and date of when the samples were received by the laboratory. A data set is called a sample delivery group (SDG). The analyses performed are discussed in Section 2.5 of the Subarea 7 and NBZ Technical Memorandum (TM).

Samples were collected and analyzed in accordance with the Master FSP (CDM Smith 2012a). Deviations were encountered during the field investigation for the Subarea 7 and NBZ sampling activities and are discussed in detail in Section 2.7 of the Subarea 7 and NBZ TM.

The validated data for Subarea 7 samples are usable as reported except for the rejected data. One pesticide result (Endosulfan I) was rejected. For all Subarea 7 data, 0.013 percent of the results were rejected. No data were rejected for Phase 3 NBZ samples.

The validated data for Phase 3 Subarea 7 and NBZ samples are usable as reported with the exception of the one rejected result. This rejected result and any impact to project objectives and goals are being evaluated in the data gap review process. Specific details are provided in the validation reports in this appendix and below.

C.2 Data Validation Procedures

Data were validated by the independent data validation firm Laboratory Data Consultants, Inc. All data validation was conducted in accordance with *U.S. Environmental Protection Agency (EPA) Contract Laboratory Program National Functional Guidelines for Inorganic Data Review* (EPA 2004), *EPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review* (EPA 2008), and *EPA Contract Laboratory Program National Functional Guidelines for Chlorinated Dioxin/Furan Data Review* (EPA 2005).

The data validation strategy was to validate 10 percent of the data according to EPA Level IV protocols (all QC parameters and raw data) and the remaining 90 percent according to EPA Level III (all QC parameters except calibrations and raw data) protocols. The Level IV determination also included reviewing 10 percent for each laboratory and each method. In order to achieve this, the validators chose appropriate samples in each SDG. Hence, not all samples in some of the SDGs were Level IV validated but they received a mixture of Level IV and Level III review.

Table C-1 shows all SDGs that include Subarea 7 and NBZ samples and which SDGs were validated as Level III or Level IV. Some SDGs contain samples from other subareas but all samples in an SDG were validated together.

In order to evaluate the quality of the laboratory and the validation firm, CDM Smith chemists reviewed 10 percent of the Subarea 7 and NBZ sample SDGs. The purpose of the review was to identify any quality control issues with the laboratory not identified by the validation firm or any discrepancies in validation procedures by the validation firm. No additional qualifiers were applied to the data based on CDM Smith's review.

C.3 Quality Assurance Objectives

Quality assurance (QA) objectives for measurement data are expressed in terms of precision, accuracy, representativeness, comparability, completeness, and sensitivity (PARCCS). The QA objectives provide a mechanism for evaluating and measuring data quality.

A review of the collected data is necessary to determine if data quality objectives established in the Master FSP (CDM Smith 2012a) have been met. The following data measurement tasks were evaluated:

- Specification and adherence to analytical method and reporting limit requirements
- Identification of the appropriate laboratory analytical QC requirements and verification that QC requirements were met
- Verification that measurement performance criteria (representativeness and completeness) for the data were met
- Verification that field procedures were followed, deviations were documented, and determination of impact on data quality from these deviations

The data validation review determines if the collected data are of sufficient quality to support their intended use.

C.4 Summary of Field and Laboratory QA Activities

CDM Smith completed sampling activities in Subarea 7 and NBZ in accordance with the approved Master FSP (CDM Smith 2012a) and discussed in the Subarea 7 and NBZ TM. A total of 92 soil samples in Subarea 7 and 74 samples in NBZ were collected and analyzed from the locations in Subarea 7 and NBZ. Tables 2-1 and 2-2 in the Subarea 7 and NBZ TM provide a summary of the samples collected and the laboratory analyses requested.

An index of samples associated with each SDG is presented at the beginning of the data validation reports presented in this appendix. The Master FSP (CDM Smith 2012a) defined the procedures to be followed and the data quality requirements for the field sampling events.

C.5 Field Quality QA/QC

The MS/MSDs and field duplicates field QC samples were collected at a frequency of approximately 1 per 20 samples (5 percent). During sampling in Subarea 7, a total of six field duplicate/MS/MSD samples were collected equating to approximately 15 percent. On an individual method basis, the five percent goal was met or exceeded for all analyses.

In NBZ, a total of seven field QC samples (field duplicate and MS/MSD samples) were collected equating to approximately ten percent. On an individual method basis, the five percent goal was met or exceeded for all analyses. Field duplicate and MS/MSD samples met the frequency requirements detailed in the Master FSP (CDM Smith 2012a).

Fourteen equipment rinsate blank samples were collected for Subarea 7 and NBZ. The equipment rinsate blank results are presented in Tables C-2 and C-3.

Three field blanks were collected during sampling for Subarea 7 and NBZ. The results for these samples are presented in Tables C-4 and C-5.

Seventeen trip blank samples were shipped with the Subarea 7 and NBZ samples. The results for these samples are presented in Tables C-6 and C-7. Data qualifications based on blank detections are discussed in Section C.7.3 and in the Appendix C validation reports.

Temperature blanks were included with each shipment of samples. Based on validation results, all temperature blanks for Subarea 7 and NBZ met criteria.

As stated previously, on an individual method basis, the five percent goal was met or exceeded for all analyses. Field duplicate and MS/MSD samples met the frequency requirements detailed in the Master FSP (CDM Smith 2012a) for the Phase 3 Subarea 7 and NBZ sampling program. Further, field QA/QC objectives were attained through the use of appropriate sampling techniques and collection of the required number and frequency of QC samples.

C.6 Laboratory Quality QA/QC

Analytical QA/QC was assessed by laboratory QC checks, method blanks, sample custody tracking, sample preservation, adherence to holding times, laboratory control samples (LCSs), MSs, calibration recoveries, surrogates, tuning criteria, second column confirmations, internal standards, serial dilutions, laboratory duplicates, and interference check standards. The majority of the laboratory QC sample criteria met project requirements as indicated in the data validation reports in this appendix with the appropriate qualifiers applied. One result was rejected for Subarea 7 and is discussed below. No results were rejected for NBZ.

C.7 Data Quality Indicators

This section summarizes the validation performed. Individual SDG validation reports with specific sample detail are provided in this appendix.

Achievement of the DQOs was determined in part by the use of data quality indicators (DQIs) as described in the Master FSP (CDM Smith 2012a). These DQIs for measurement data are expressed in terms of PARCCS. The DQIs provide a mechanism for ongoing control to evaluate and measure data quality throughout the project. These criteria are defined in the sections below.

C.7.1 Precision

Precision is a quantitative term that estimates the reproducibility of a set of replicate measurements under a given set of conditions. It is defined as a measurement of mutual agreement between measurements of the same property and is expressed in terms of relative percent difference (RPD) between duplicate determinations.

RPD is calculated as follows:

$$\textbf{RPD = absolute value [(C1-C2)/\{(C1+C2)/2)\}] x 100\%}$$

Where:

C1 = concentration of primary sample
C2 = concentration of duplicate sample

Field and analytical precision were determined from the review of the field duplicate results. The sample results were compared by calculating their RPDs. The field duplicate samples were collected in the same manner as the original samples but were collected in separate, individual containers, given separate sample identifiers, and treated as individual samples by the laboratory.

Laboratory duplicate RPD control limits are presented in the Work Plan (CDM Smith 2012c) or are laboratory specific. For laboratory duplicates, if one or both of the sample results were less than two times the RL, a control limit of the absolute difference equal to the RL value was used for comparison.

The field duplicate RPD criterion is 50 percent. Field duplicates for this project were validated using the following: If one result is non-detect and the other result is above the RL, the RPD result is shown as 200 percent and the field duplicate sample and parent sample results are qualified as estimated "J" or "UJ." If the field duplicate RPD was above the 50 percent criterion (and both sample results were above the RL), the field duplicate and parent sample results for that analyte were qualified as estimated "J."

Qualifiers were applied to applicable sample analyte results during the validation process based on laboratory and field duplicate precision results. Details are discussed in the laboratory validation reports in this appendix. Tables C-8 and C-9 show the field duplicate pairs and RPD results for Subarea 7 and NBZ. RPD results outside of criteria are highlighted.

No analyte results were qualified for Subarea 7 or NBZ based on laboratory precision criteria.

Field duplicate precision criteria for Phase 3 Subarea 7 samples required the qualification of the following analytes:

- 48 dioxin results
- 27 metal results
- 1 mercury result
- 10 TPH GRO/EFH results
- 3 pesticide results
- 3 PCB/PCT results
- 32 SVOC SIM results

For Phase 3 NBZ samples the following analytes were qualified due to field duplicate precision:

- 25 dioxin results
- 1 nitrate result
- 6 metal results
- 4 TPH GRO/EFH results
- 4 pesticide result s
- 2 herbicide results
- 31 SVOC SIM results

No results were rejected based on field duplicate precision criteria. All field duplicate RPD results are presented in Appendix C. In summary, sample results that have been qualified as estimated "J/UJ" due to precision criteria are usable for project decisions with a degree of caution.

There is no discernable pattern or reason for the laboratory and field sample RPD exceedances identified. No field sampling issues were identified from the RPD results that were outside of criteria and the exceedances are reasonable for this type of sampling activity.

C.7.2 Accuracy

Accuracy is the degree of agreement between a measurement and the accepted reference or true value and is a measure of the bias in a system. Accuracy of the data was assessed by comparing LCS recovery, MS recovery, calibration recovery, Inductively Coupled Plasma (ICP) interferences, and by performing serial dilution checks during metals analyses. Accuracy is expressed as percent recovery (%R), which is calculated by:

$$\textbf{Percent Recovery} = \frac{(\textbf{Total Analyte Found} - \textbf{Analyte Originally Present})}{\textbf{Analyte Added}} \times 100$$

Analytical accuracy for the entire data collection activity is difficult to assess because several sources of error exist. Errors can be introduced by any of the following:

- Sampling procedure
- Field contamination
- Sample preservation and handling
- Sample matrix
- Sample preparation
- Analytical techniques

Accuracy is maintained to the extent possible by adhering to the approved analytical method and field and analytical standard operating procedures.

Qualifiers were applied to applicable sample analyte results during the validation process based on laboratory accuracy results and are discussed in detail in the laboratory validation reports in Appendix C.

The following Subarea 7 individual analyte results were qualified as estimated "J/UJ" based on accuracy criteria:

- 4 dioxin results, 247 metal results, 10 TPH GRO/EFH results, 2 pesticide results, and 17 SVOC SIM results due to MS recoveries
- 29 metal analyte results due to serial dilutions
- 30 TPH GRO/EFH results and 1 pesticide result for LCS recoveries
- 9 PCB/PCT results for surrogate recoveries
- 5 dioxins and 1 pesticide result for second column confirmation results

The following individual analyte result was rejected "R" based on accuracy criteria:

- 1 pesticide result (Endosulfan I) based on MSs

The following NBZ individual analyte results were qualified as estimated "J/UJ" based on accuracy criteria:

- 4 nitrate results, 26 metals, and 2 TPH GRO/EFH results results due to MSs

- 2 herbicide results and 1 SVOC SIM result due to LCSs
- 2 pesticide results due to confirmation column results
- 1 pesticide results based on calibration criteria

Sample preservation, handling, and holding times are additional measures of accuracy of the data. All sample preservation, holding times and handling criteria were met.

Sample results that have been qualified as estimated "J/UJ" due to accuracy criteria are usable for project decisions. Sample results that have been rejected are not usable for project decisions.

C.7.3 Blank Contamination

Field blanks (e.g., equipment and trip) and laboratory method blanks are analyzed to identify possible sources of contamination. Contamination of a sample can be introduced by field sample collection methods, sample handling, preparation, and/or analysis. The laboratory validation reports in this appendix and summarized below discuss the results qualified based on field and laboratory blank contamination.

The following individual analyte results were qualified as nondetect "U" based on blank contamination for the Subarea 7 samples:

- 297 dioxin results (20.6% of all dioxin results)
- 134 metal results (5.6% of all metal results)

The following individual analyte results were qualified as nondetect "U" based on blank contamination for the NBZ samples:

- 319 dioxin results (59% of all dioxin results)
- 19 metal results (4.2% of all metal results)

For the dioxins, MDLs for this analysis are very low, reported in nanogram per kilogram (ng/kg) or parts per trillion, resulting in numerous results qualified as estimated "J." Many of these estimated values have been subsequently qualified as non-detect "U" because the compound was detected in related laboratory blanks. In the laboratory blanks, low level detections of dioxin analytes are somewhat inevitable because of the nature and universal extent of the compounds. The dioxin levels found in the blanks are well below site-related action levels. Therefore, the resulting qualification of associated sample results as not detected or "U" does not falsely diminish identification of site-related contaminants.

Tables C-2 through C-7 provide a summary of chemicals observed in the equipment, field and trip blank samples. Most of the equipment blanks, field blanks and trip blanks detected compounds were below the RLs but above the MDLs. ASTM International Type II water is not typically certified “clean” to the low RLs established for the low level methods used for the co-located sampling program.

A review of the Phase 3 equipment blanks for Subarea 7 and NBZ was also performed. In general, a variety of analytes were detected above their respective RLs. All Phase 3 equipment blanks will continue to be monitored to determine if these low level detections are consistent, thus indicating a possible deficiency in decontamination procedures and/or source water impacts that need to be addressed and corrected.

For Subarea 7, 103 metal results and 6 SVOC SIM results were qualified based on field/equipment blanks results. For NBZ, 11 metal results were also qualified based on field/equipment blank criteria. To date, chemical detections in equipment blank samples appear to be random occurrences.

Trip blank results are presented in Tables C-6 and C-7. All the trip blank results were nondetect.

C.7.4 Representativeness, Comparability, and Sensitivity

Representativeness, comparability, and sensitivity are achieved by using EPA-approved sampling procedures and analytical methodologies. By following the procedures described in the Work Plan (CDM Smith 2012c) for this sampling event and future sampling events, sample analysis should yield results representative of environmental conditions at the time of sampling. Similarly, reasonable comparability of analytical results for this and future sampling events can be achieved if approved EPA analytical methods and standardized reporting units are employed.

C.7.4.1 Representativeness

Representativeness is a qualitative term that expresses the degree to which the sample data accurately and precisely represent the environmental conditions corresponding to the location and depth interval of sample collection. Requirements and procedures for sample collection are designed to maximize sample representativeness.

Representativeness also can be monitored by reviewing field documentation and/or by performing field audits. For this report, a detailed review was performed on the COC forms, field data collection forms, laboratory sample confirmation logs, and data validation packages. Laboratory QA/QC requirements were included in the Master FSP (CDM Smith 2012a) and laboratory statements of work (SOWs) to ensure that the laboratory analytical results were representative of true field conditions.

Field sampling accuracy was attained through strict adherence to the approved Master FSP (CDM Smith 2012a) and by using approved standard operating procedures for field data collection. Based on this, the data should represent as near as possible the actual field conditions at the time of sampling.

Representativeness has been achieved by the performed field work and laboratory analyses. The analytical data generated, that have not been rejected, are viewed to be a representative characterization of the project area.

C.7.4.2 Comparability

Comparability is a qualitative term that expresses the confidence with which a data set can be compared with another. Strict adherence to standard sample collection procedures, analytical detection limits, and analytical methods assures that data from like samples and sample conditions are comparable. This comparability is independent of laboratory personnel, data reviewers, or sampling personnel. Comparability criteria are met for the project if, based on data review, the sample collection and analytical procedures are determined to have been followed, or defined to show that variations did not affect the values reported.

To ensure comparability of data generated for the site, standard sample collection procedures and Department of Toxic Substances Control (DTSC)-approved analytical methods were utilized by CDM Smith. The sample analyses were performed by Eurofins Lancaster Laboratories. Utilizing such procedures and methods enables the current data to be comparable with previous and future data sets generated with similar methods.

C.7.4.3 Sensitivity

Sensitivity is related to the ability to compare analytical results with project-specific levels of interest, such as risk-based screening levels or action levels. Analytical detection limits for the various sample analytes should be below the level of interest to allow an effective comparison.

Detection Limits

Each analytical method used during the sampling events was selected because it had potential to achieve RLs established for this project. RLs were established for each analyte in consultation with the laboratory to achieve analytical results at or below regulatory comparison criteria.

The method detection limit (MDL) is defined as the concentration of an analyte that produces a signal with a 99 percent confidence that the concentration is above that of a blank but that that concentration cannot be accurately quantified. A blank is a sample that does not contain measurable concentrations of the analyte of concern. Tested by statistical performance, calibration samples, and LCSs, MDLs represent the best fundamental measurement of instrument sensitivity and the basis for establishing RLs.

The laboratory RL is typically about 3 to 5 times higher than the MDL and is a laboratory-specific number. The actual sample RL is variable based on the sample matrix, moisture content, and other sample-specific factors. When a sample has to be diluted before analysis, either because of matrix problems or to bring the instrument response within the linear dynamic range, the RL is raised by a factor corresponding to the dilution factor.

In reporting environmental sample results, laboratories follow protocols that help ensure that the result reported is at the lowest level and is defensible, taking into account the ability of the instrument to differentiate a signal generated by the analyte from the background instrument noise, imprecision added to the detection capabilities of the analyte due to the sample processing manipulations (MDLs) and sample matrix affects, and adjustments made

to the detection limits based on difficulties encountered in analyzing the sample (dilution factors, etc.).

The result for an analyte is flagged with a "U" if that analyte was not detected, or qualified with a "J" flag if blank or other QC results fall outside the appropriate tolerance limits. If an analyte is present at a concentration between the MDL and the RL, the analytical result is flagged with a "J," indicating an estimated quantity. Qualifying the result as an estimated concentration reflects increased uncertainty in the reported value.

The following analyses and individual analyte sample results were qualified as estimated "J" due to the sample results being reported as detected below the RL for Subarea 7 samples:

- Method 1613B (Dioxins)
  - 766 individual analyte results
- Methods 6010C/6020A (Metals)
  - 466 individual analyte results
- Methods 7199 (Hexavalent Chromium)
  - 1 individual analyte results
- Methods 7471B (Mercury)
  - 32 individual analyte results
- Method 8015B (TPH GRO/EFH)
  - 42 individual analyte results
- Method 8081B (Pesticides)
  - 10 individual analyte results
- Method 8082A (PCBs)
  - 25 individual analyte results
- Method 8270C SIM (SVOCs)
  - 380 individual analyte results

The following analyses and individual analyte sample results were qualified as estimated "J" due to the sample results being reported as detected below the RL for NBZ samples:

- Method 1613B (Dioxins)
  - 116 individual analyte results
- Method 300 (Nitrate)
  - 2 individual analyte result
- Methods 6010C/6020A (Metals)
  - 96 individual analyte results
- Methods 7471B (Mercury)

  - 7 individual analyte results

- Method 8015M (TPH GRO/EFH)
  - 35 individual analyte results

- Method 8081B (Pesticides)
  - 40 individual analyte results

- Method 8082A (PCBs)
  - 35 individual analyte results

- Method 8151A (Herbicides)
  - 5 individual analyte results

- Method 8270D (SVOCs)
  - 147 individual analyte results

For the data validated in the Subarea 7 and NBZ TM, RLs for a majority of the sample results were low enough to compare to the RLs stated in the Master FSP (CDM Smith 2012a). RLs above those stated in the Master FSP (CDM Smith 2012a) will be evaluated on a case by case basis to see if resampling is required.

C.8 Review of Selected Validation Reports

CDM Smith performed a review of 10 percent of the validation reports identified in Table C-1. This review involved comparing the validation report results against the laboratory data packages as well as the validation guidance documents. All validation report results that were reviewed were verified against the laboratory data packages and determined that validation documents were followed as required.

C.9 Data Completeness

Completeness of the data collection program is defined as the percentage of samples planned for collection as listed in the Master FSP (CDM Smith 2012a) versus the actual number of samples collected during the field program (see equation A).

Completeness for acceptable data is defined as the percentage of acceptable data obtained judged to be valid versus the total quantity of data generated (see equation B). Acceptable data include both data that pass all the QC criteria (unqualified data) and data that may not pass all the QC criteria but had appropriate corrective actions taken (qualified but usable data).

A. $$\%\text{Completeness} = C \times \frac{100}{n}$$

Where:

C = actual number of samples collected
n = total number of samples planned

B. $$\%\text{Completeness} = V \times \frac{100}{n'}$$

Where:

V = number of measurements judged valid
n' = total number of measurements made

The overall completeness goal, as defined in the Master FSP (CDM Smith 2012a), for these sampling events was 90 percent for each analytical test for all project data.

A total of 168 soil samples including the field duplicates were collected and analyzed. Some locations required only a subsurface sample while other locations required both a surface and a subsurface sample. The number of subsurface samples to be collected at each location was not pre-determined because the total depth of each boring varies depending on the local geology. One sample was not collected in NBZ as it was inaccessible and unsafe to sample. The completeness goal for the actual number of samples collected compared to the number of samples planned is considered acceptable as a sample was collected from each location (depending on shallow refusal).

The completeness goal achieved for acceptable data was 99.98 percent for Subarea 7 and 100 percent for NBZ for the number of measurements judged to be valid versus the total number of measurements made for all samples analyzed.

The following Phase 3 Subarea 7 individual analyte results were rejected per analyses:

- Method 8081B
  - 1 out of 189 individual herbicide analyte results (0.529 %)

Tables C-10 and C-11 summarize all results that were estimated or rejected for Phase 3 Subarea 7 and NBZ respectively.

The completeness goals for both the locations sampled and the number of measurements judged to be valid were met or are planned to be met.

Sampling deviations from procedures described in the Master FSP (CDM Smith 2012a) are discussed in Section 2.7 of the Subarea 7 and NBZ Phase 3 TM. Deviations did not impact DQOs for this sampling event. The data reported are suitable for their intended use for characterization of Area IV of SSFL. The DQIs identified in the Master FSP (CDM Smith 2012a) met appropriate criteria. The completeness goals for both the locations sampled and the number of measurements judged to be valid were met or will be met. The achievement of the completeness goals for the data indicates a sufficient amount of usable data has been generated for project decisions.

C.10 Assessment of Data Usability and Reconciliation with WP/FSAP Goals

Over 99 percent of the data validated for Subarea 7 and NBZ Phase 3, are suitable for their intended use for site characterization. Sample results that were qualified as estimated are usable for project decisions. Rejected sample results are not suitable for project use. The

rejected analyte results do not impact achievement of the overall project objectives. The RLs reported generally met the expected limits proposed by the analytical laboratories in their subcontract agreements with CDM Smith.

Field duplicate precision also met criteria a majority of the time. RPDs were outside criteria predominantly when the sample results were close to the RL and/or below the project required action limits. Decisions based on results close to the RL should be made with a degree of caution. The achievement of the completeness goals for number of samples collected, and the number of sample results acceptable for use provides sufficient quality data to support project decisions.

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Table C1 – Sample Delivery Groups and Validation Levels for Subarea 7 and Northern Buffer Zone

Subarea 7 SDGs		
Sample Delivery Group	Level of Validation Performed	CDM Smith Review
PH027	Level IV	
PH028	Level II	
PH029	Level III	
PH030	Level III	
PH031	Level IV	Yes
PH032	Level III	
PH033	Level III	
PH034	Level III	
PH035	Level III	
PH036	Level III	
PH037	Level III	
PH038	Level III	
PH039	Level IV	
PH040	Level III	Yes
PH045	Level III	
PH046	Level IV	
PH049	Level IV	
PH121	Level III	
NBZ SDGs		
Sample Delivery Group	Level of Validation Performed	CDM Smith Review
PH138	Level III	
PH139	Level IV	
PH140	Level III	
PH141	Level III	
PH142	Level IV	Yes
PH143	Level III	
PH146	Level III	
PH148	Level III	
PH151	Level III	
PH155	Level III	Yes
PH157	Level III	

Table C2- - Subarea 7 - Equipment Blank Samples

		Sample Name:	EB-041113		EB-041213		EB-041813		EB-041913		EB-042413	
		Location:	7_DG_EB		7_DG_EB		7_DG_EB		7_DG_EB		7_DG_EB	
		Sample Date:	04/11/2013		04/12/2013		04/18/2013		04/19/2013		04/24/2013	
		Sample Type:	EB		EB		EB		EB		EB	
		Lab:	LL		LL		LL		LL		LL	
Analyte	Analytic Method	Units	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer
1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	1613B	pg/L	9.74	U			9.71	U			9.65	U
1,2,3,4,6,7,8-HPCDF	1613B	pg/L	9.74	U			9.71	U			9.65	U
1,2,3,4,7,8,9-HPCDF	1613B	pg/L	9.74	U			9.71	U			9.65	U
1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	1613B	pg/L	0.322	J			9.71	U			9.65	U
1,2,3,4,7,8-HXCDF	1613B	pg/L	9.74	U			0.235	J			9.65	U
1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	1613B	pg/L	9.74	U			9.71	U			9.65	U
1,2,3,6,7,8-HXCDF	1613B	pg/L	9.74	U			9.71	U			9.65	U
1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	1613B	pg/L	9.74	U			9.71	U			9.65	U
1,2,3,7,8,9-HXCDF	1613B	pg/L	9.74	U			9.71	U			9.65	U
1,2,3,7,8-Pentachlorodibenzofuran	1613B	pg/L	9.74	U			9.71	U			9.65	U
1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	1613B	pg/L	9.74	U			9.71	U			9.65	U
1-Methylnaphthalene	8270D SIM	µg/L	0.02	J			0.014	J			0.054	U
2,3,4,6,7,8-HXCDF	1613B	pg/L	9.74	U			9.71	U			9.65	U
2,3,4,7,8-PECDF	1613B	pg/L	9.74	U			9.71	U			9.65	U
2,3,7,8-TCDD	1613B	pg/L	1.95	U			1.94	U			1.93	U
2,3,7,8-Tetrachlorodibenzofuran	1613B	pg/L	1.95	U			1.94	U			1.93	U
2-Methylnaphthalene	8270D SIM	µg/L	0.027	J			0.018	J			0.011	J
4,4'-DDD	8081B	µg/L					0.017	U	0.016	U	0.017	U
4,4'-DDE	8081B	µg/L					0.017	U	0.016	U	0.017	U
4,4'-DDT	8081B	µg/L					0.017	U	0.016	U	0.017	U
Acenaphthene	8270D SIM	µg/L	0.055	U			0.051	U			0.054	U
Acenaphthylene	8270D SIM	µg/L	0.055	U			0.051	U			0.054	U
Aldrin	8081B	µg/L					0.0085	U	0.0081	U	0.0084	U
Alpha-Bhc	8081B	µg/L					0.0085	U	0.0081	U	0.0084	U
Aluminum	6010C	mg/L	0.4	U			0.4	U			0.4	U
Anthracene	8270D SIM	µg/L	0.055	U			0.051	U			0.054	U
Antimony	6010C	mg/L	0.04	U			0.04	U			0.04	U
Aroclor 1016	8082A	µg/L	0.43	U			0.42	U			0.42	U
Aroclor 1221	8082A	µg/L	0.43	U			0.42	U			0.42	U
Aroclor 1232	8082A	µg/L	0.43	U			0.42	U			0.42	U
Aroclor 1242	8082A	µg/L	0.43	U			0.42	U			0.42	U
Aroclor 1248	8082A	µg/L	0.43	U			0.42	U			0.42	U
Aroclor 1254	8082A	µg/L	0.43	U			0.42	U			0.42	U
Aroclor 1260	8082A	µg/L	0.43	U			0.42	U			0.42	U
Aroclor 1262	8082A	µg/L	0.43	U			0.42	U			0.42	U
Aroclor 1268	8082A	µg/L	0.43	U			0.42	U			0.42	U
Aroclor 5432	8082A	µg/L	0.43	U			0.42	U			0.42	U
Aroclor 5442	8082A	µg/L	0.43	U			0.42	U			0.42	U
Aroclor 5460	8082A	µg/L	0.43	U			0.42	U			0.42	U
Arsenic	6010C	mg/L	0.04	U			0.04	U			0.04	U
Barium	6010C	mg/L	0.01	U			0.01	U			0.01	U
Benzo(a)anthracene	8270D SIM	µg/L	0.055	U			0.051	U			0.054	U
Benzo(a)pyrene	8270D SIM	µg/L	0.055	U			0.051	U			0.054	U
Benzo(b)fluoranthene	8270D SIM	µg/L	0.055	U			0.051	U			0.054	U
Benzo(e)pyrene	8270D SIM	µg/L	0.055	U			0.051	U			0.054	U
Benzo(g,h,i)perylene	8270D SIM	µg/L	0.055	U			0.051	U			0.054	U
Benzo(k)fluoranthene	8270D SIM	µg/L	0.055	U			0.051	U			0.054	U
Beryllium	6010C	mg/L	0.01	U			0.01	U			0.01	U
Beta-Bhc	8081B	µg/L					0.0085	U	0.0081	U	0.0084	U
Bis(2-ethylhexyl)phthalate	8270D SIM	µg/L	1.1	U			1	U			1.1	U
Boron	6010C	mg/L	0.1	U			0.1	U			0.0319	J
Butylbenzylphthalate	8270D SIM	µg/L	1.1	U			1	U			1.1	U
Cadmium	6010C	mg/L	0.01	U			0.01	U			0.01	U
Calcium	6010C	mg/L	0.131	J			0.4	U			0.4	U
Chlordane	8081B	µg/L					0.42	U	0.4	U	0.42	U
Chromium	6010C	mg/L	0.03	U			0.03	U			0.03	U
Chromium (Hexavalent Compounds)	7199	µg/L	10	U								
Chrysene	8270D SIM	µg/L	0.055	U			0.051	U			0.054	U
Cobalt	6010C	mg/L	0.01	U			0.01	U			0.01	U
Copper	6010C	mg/L	0.02	U			0.02	U			0.02	U
Delta-Bhc	8081B	µg/L					0.0085	U	0.0081	U	0.0084	U
Dibenzo(a,h)anthracene	8270D SIM	µg/L	0.055	U			0.051	U			0.054	U
Dieldrin	8081B	µg/L					0.017	U	0.016	U	0.017	U
Diethylphthalate	8270D SIM	µg/L	0.24	J			0.071	J			0.089	J
Dimethylphthalate	8270D SIM	µg/L	1.1	U			1	U			1.1	U
Di-n-butylphthalate	8270D SIM	µg/L	0.16	J			0.11	J			0.15	J
Di-n-octylphthalate	8270D SIM	µg/L	1.1	UJ			1	U			1.1	U
EFH (C12-C14)	8015M	mg/L	0.57	U			0.62	U			0.58	UJ
EFH (C15-C20)	8015M	mg/L	0.57	U			0.62	U			0.58	UJ
EFH (C21-C30)	8015M	mg/L	0.57	U			0.62	U			0.58	UJ
EFH (C30-C40)	8015M	mg/L	0.57	U			0.62	UJ			0.58	UJ
EFH (C8-C11)	8015M	mg/L	0.57	UJ			0.62	UJ			0.58	UJ
Endosulfan I	8081B	µg/L					0.0085	U	0.0081	U	0.0084	U
Endosulfan II	8081B	µg/L					0.017	U	0.016	U	0.017	U
Endosulfan Sulfate	8081B	µg/L					0.017	U	0.016	U	0.017	U
Endrin	8081B	µg/L					0.017	U	0.016	U	0.017	U
Endrin Aldehyde	8081B	µg/L					0.085	U	0.081	U	0.084	U
Endrin Ketone	8081B	µg/L					0.017	U	0.016	U	0.017	U
Fluoranthene	8270D SIM	µg/L	0.055	U			0.051	U			0.054	U
Fluorene	8270D SIM	µg/L	0.055	U			0.051	U			0.054	U
Formaldehyde	8315A	µg/L			50	UJ						
Gamma-Bhc (Lindane)	8081B	µg/L					0.0085	U	0.0081	U	0.0084	U
Gasoline Range Organics (C5-C12)	8015M	µg/L	50	U			50	U			50	U
Heptachlor	8081B	µg/L					0.0085	U	0.0081	U	0.0084	U
Heptachlor Epoxide	8081B	µg/L					0.0085	U	0.0081	U	0.0084	U
Indeno(1,2,3-cd)pyrene	8270D SIM	µg/L	0.055	U			0.051	U			0.054	U
Iron	6010C	mg/L	0.4	U			0.4	U			0.4	U
Lead	6010C	mg/L	0.03	U			0.03	U			0.03	U
Lithium	6010C	mg/L	0.04	U			0.04	U			0.04	U
Magnesium	6010C	mg/L	0.2	U			0.2	U			0.2	U
Manganese	6010C	mg/L	0.0012	J			0.01	U			0.01	U
Mercury	7470A	mg/L	0.0002	U			0.0002	U			0.0002	U
Methoxychlor	8081B	µg/L					0.085	U	0.081	U	0.084	U
Mirex	8081B	µg/L					0.21	U	0.2	U	0.21	U
Molybdenum	6010C	mg/L	0.02	U			0.02	U			0.02	U
Naphthalene	8270D SIM	µg/L	0.13				0.086				0.053	J
Nickel	6010C	mg/L	0.02	U			0.02	U			0.02	U
N-Nitrosodimethylamine	8270D SIM	µg/L	0.055	U			0.051	U			0.054	U
OCDD	1613B	pg/L	19.5	U			19.4	U			19.3	U
OCDF	1613B	pg/L	19.5	U			19.4	U			19.3	U
pH	9040C	pH	7.1				6.5				5.7	
Phenanthrene	8270D SIM	µg/L	0.055	U			0.051	U			0.054	U
Phosphorus	6010C	mg/L	0.2	U			0.2	U			0.2	U
Potassium	6010C	mg/L	1	U			1	U			1	U
Pyrene	8270D SIM	µg/L	0.055	U			0.051	U			0.054	U
Selenium	6020A	mg/L	0.004	U			0.004	U			0.004	U
Silver	6020A	mg/L	0.001	U			0.001	U			0.001	U
Sodium	6010C	mg/L	2	U			2	U			0.228	J
Strontium	6020A	mg/L	0.002	U			0.00028	J			0.002	U
TCDD TEQ	1613B	pg/L	0.0875				0.00502				0.0969	
Technical Toxaphene	8081B	µg/L					2.5	U	2.4	U	2.5	U
Thallium	6020A	mg/L	0.001	U			0.001	U			0.001	U
Tin	6010C	mg/L	0.0024	J			0.04	U			0.0035	J
Titanium	6010C	mg/L	0.02	U			0.02	U			0.02	U
Vanadium	6010C	mg/L	0.01	U			0.01	U			0.01	U
Zinc	6010C	mg/L	0.0041	J			0.04	U			0.04	U
Zirconium	6010C	mg/L	0.1	U			0.1	U			0.1	U

Notes:
ug/L - microgram per liter
mg/L - milligram per liter
ng/L - nanogram per liter
pg/L - picogram per liter
U - Compound not detected above the reporting limit

Table C2- - Subarea 7 - Equipment Blank Samples

		Sample Name:	EB1-060313		EB2-060313		EB2-100213	
		Location:	7_DG_EB		7_DG_EB		7_DG_EB	
		Sample Date:	06/03/2013		06/03/2013		10/02/2013	
		Sample Type:	EB		EB		EB	
		Lab:	LL		LL		LL	
Analyte	Analytic Method	Units	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer
1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	1613B	pg/L	10.2	U	10.1	U	9.67	U
1,2,3,4,6,7,8-HPCDF	1613B	pg/L	10.2	U	10.1	U	9.67	U
1,2,3,4,7,8,9-HPCDF	1613B	pg/L	10.2	U	10.1	U	9.67	U
1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	1613B	pg/L	10.2	U	10.1	U	9.67	U
1,2,3,4,7,8-HXCDF	1613B	pg/L	10.2	U	10.1	U	9.67	U
1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	1613B	pg/L	10.2	U	10.1	U	9.67	U
1,2,3,6,7,8-HXCDF	1613B	pg/L	10.2	U	10.1	U	9.67	U
1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	1613B	pg/L	10.2	U	10.1	U	9.67	U
1,2,3,7,8,9-HXCDF	1613B	pg/L	10.2	U	10.1	U	9.67	U
1,2,3,7,8-Pentachlorodibenzofuran	1613B	pg/L	10.2	U	10.1	U	9.67	U
1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	1613B	pg/L	10.2	U	10.1	U	9.67	U
1-Methylnaphthalene	8270D SIM	µg/L	0.053	U	0.052	U	0.053	UJ
2,3,4,6,7,8-HXCDF	1613B	pg/L	10.2	U	10.1	U	9.67	U
2,3,4,7,8-PECDF	1613B	pg/L	10.2	U	10.1	U	9.67	U
2,3,7,8-TCDD	1613B	pg/L	2.04	U	2.02	U	1.93	U
2,3,7,8-Tetrachlorodibenzofuran	1613B	pg/L	0.112	J	2.02	U	1.93	U
2-Methylnaphthalene	8270D SIM	µg/L	0.053	U	0.052	U	0.053	UJ
4,4'-DDD	8081B	µg/L	0.017	U	0.016	U		
4,4'-DDE	8081B	µg/L	0.017	U	0.016	U		
4,4'-DDT	8081B	µg/L	0.017	U	0.016	U		
Acenaphthene	8270D SIM	µg/L	0.053	U	0.052	U	0.053	UJ
Acenaphthylene	8270D SIM	µg/L	0.053	U	0.052	U	0.053	UJ
Aldrin	8081B	µg/L	0.0083	U	0.0082	U		
Alpha-Bhc	8081B	µg/L	0.0083	U	0.0082	U		
Aluminum	6010C	mg/L	0.4	U	0.4	U	0.4	U
Anthracene	8270D SIM	µg/L	0.053	U	0.052	U	0.053	UJ
Antimony	6010C	mg/L	0.04	U	0.04	U	0.04	U
Aroclor 1016	8082A	µg/L	0.41	U	0.41	U	0.42	U
Aroclor 1221	8082A	µg/L	0.41	U	0.41	U	0.42	U
Aroclor 1232	8082A	µg/L	0.41	U	0.41	U	0.42	U
Aroclor 1242	8082A	µg/L	0.41	U	0.41	U	0.42	U
Aroclor 1248	8082A	µg/L	0.41	U	0.41	U	0.42	U
Aroclor 1254	8082A	µg/L	0.41	U	0.41	U	0.42	U
Aroclor 1260	8082A	µg/L	0.41	U	0.41	U	0.42	U
Aroclor 1262	8082A	µg/L	0.41	U	0.41	U	0.42	U
Aroclor 1268	8082A	µg/L	0.41	U	0.41	U	0.42	U
Aroclor 5432	8082A	µg/L	0.41	U	0.41	U	0.42	U
Aroclor 5442	8082A	µg/L	0.41	U	0.41	U	0.42	U
Aroclor 5460	8082A	µg/L	0.41	U	0.41	U	0.42	U
Arsenic	6010C	mg/L	0.04	U	0.04	U	0.04	U
Barium	6010C	mg/L	0.01	U	0.01	U	0.01	U
Benzo(a)anthracene	8270D SIM	µg/L	0.053	U	0.052	U	0.053	UJ
Benzo(a)pyrene	8270D SIM	µg/L	0.053	U	0.052	U	0.053	UJ
Benzo(b)fluoranthene	8270D SIM	µg/L	0.053	U	0.052	U	0.053	UJ
Benzo(e)pyrene	8270D SIM	µg/L	0.053	U	0.052	U	0.053	UJ
Benzo(g,h,i)perylene	8270D SIM	µg/L	0.053	U	0.052	U	0.053	UJ
Benzo(k)fluoranthene	8270D SIM	µg/L	0.053	U	0.052	U	0.053	UJ
Beryllium	6010C	mg/L	0.01	U	0.01	U	0.01	U
Beta-Bhc	8081B	µg/L	0.0083	U	0.0082	U		
Bis(2-ethylhexyl)phthalate	8270D SIM	µg/L	1.1	U	1	U	0.41	J
Boron	6010C	mg/L	0.1	U	0.1	U	0.1	U
Butylbenzylphthalate	8270D SIM	µg/L	1.1	U	1	U	1.1	UJ
Cadmium	6010C	mg/L	0.01	U	0.01	U	0.01	U
Calcium	6010C	mg/L	0.4	U	0.4	U	0.4	U
Chlordane	8081B	µg/L	0.41	U	0.41	U		
Chromium	6010C	mg/L	0.03	U	0.03	U	0.03	U
Chromium (Hexavalent Compounds)	7199	µg/L						
Chrysene	8270D SIM	µg/L	0.053	U	0.052	U	0.053	UJ
Cobalt	6010C	mg/L	0.01	U	0.01	U	0.01	U
Copper	6010C	mg/L	0.02	U	0.02	U	0.02	U
Delta-Bhc	8081B	µg/L	0.0083	U	0.0082	U		
Dibenzo(a,h)anthracene	8270D SIM	µg/L	0.053	U	0.052	U	0.053	U
Dieldrin	8081B	µg/L	0.017	U	0.016	U		
Diethylphthalate	8270D SIM	µg/L	1.1	U	1	U	0.29	J
Dimethylphthalate	8270D SIM	µg/L	1.1	U	1	U	1.1	UJ
Di-n-butylphthalate	8270D SIM	µg/L	1.1	U	1	U	0.25	J
Di-n-octylphthalate	8270D SIM	µg/L	1.1	U	1	U	1.1	U
EFH (C12-C14)	8015M	mg/L	0.098	U	0.1	U	0.096	U
EFH (C15-C20)	8015M	mg/L	0.098	U	0.1	U	0.096	U
EFH (C21-C30)	8015M	mg/L	0.098	U	0.1	U	0.096	U
EFH (C30-C40)	8015M	mg/L	0.49	U	0.5	U	0.48	U
EFH (C8-C11)	8015M	mg/L	0.098	UJ	0.1	UJ	0.096	UJ
Endosulfan I	8081B	µg/L	0.0083	U	0.0082	U		
Endosulfan II	8081B	µg/L	0.017	U	0.016	U		
Endosulfan Sulfate	8081B	µg/L	0.017	U	0.016	U		
Endrin	8081B	µg/L	0.017	U	0.016	U		
Endrin Aldehyde	8081B	µg/L	0.083	U	0.082	U		
Endrin Ketone	8081B	µg/L	0.017	U	0.016	U		
Fluoranthene	8270D SIM	µg/L	0.053	U	0.052	U	0.053	UJ
Fluorene	8270D SIM	µg/L	0.053	U	0.052	U	0.053	UJ
Formaldehyde	8315A	µg/L						
Gamma-Bhc (Lindane)	8081B	µg/L	0.0083	U	0.0082	U		
Gasoline Range Organics (C5-C12)	8015M	µg/L	50	U	50	U	50	U
Heptachlor	8081B	µg/L	0.0083	U	0.0082	U		
Heptachlor Epoxide	8081B	µg/L	0.0083	U	0.0082	U		
Indeno(1,2,3-cd)pyrene	8270D SIM	µg/L	0.053	U	0.052	U	0.053	U
Iron	6010C	mg/L	0.4	U	0.4	U	0.4	U
Lead	6010C	mg/L	0.03	U	0.03	U	0.03	U
Lithium	6010C	mg/L	0.04	U	0.04	U	0.04	U
Magnesium	6010C	mg/L	0.2	U	0.2	U	0.2	U
Manganese	6010C	mg/L	0.01	U	0.01	U	0.01	U
Mercury	7470A	mg/L	0.0002	U	0.0002	U	0.0002	U
Methoxychlor	8081B	µg/L	0.083	UJ	0.082	UJ		
Mirex	8081B	µg/L	0.21	U	0.21	U		
Molybdenum	6010C	mg/L	0.02	U	0.02	U	0.02	U
Naphthalene	8270D SIM	µg/L	0.053	U	0.052	U	0.053	UJ
Nickel	6010C	mg/L	0.02	U	0.02	U	0.02	U
N-Nitrosodimethylamine	8270D SIM	µg/L	0.053	U	0.052	U	0.053	U
OCDD	1613B	pg/L	20.4	U	20.2	U	19.3	U
OCDF	1613B	pg/L	20.4	U	20.2	U	19.3	U
pH	9040C	pH	5.2		5		7.1	
Phenanthrene	8270D SIM	µg/L	0.053	U	0.052	U	0.053	UJ
Phosphorus	6010C	mg/L	0.2	U	0.2	U	0.2	U
Potassium	6010C	mg/L	1	U	1	U	1	U
Pyrene	8270D SIM	µg/L	0.053	U	0.052	U	0.053	UJ
Selenium	6020A	mg/L	0.004	U	0.004	U	0.004	U
Silver	6020A	mg/L	0.001	U	0.001	U	0.001	U
Sodium	6010C	mg/L	2	U	2	U	2	U
Strontium	6020A	mg/L	0.002	U	0.002	U	0.002	U
TCDD TEQ	1613B	pg/L	0.0744		0.0162		0.0608	
Technical Toxaphene	8081B	µg/L	2.5	U	2.5	U		
Thallium	6020A	mg/L	0.001	U	0.001	U	0.001	U
Tin	6010C	mg/L	0.04	U	0.04	U	0.04	U
Titanium	6010C	mg/L	0.02	U	0.02	U	0.02	U
Vanadium	6010C	mg/L	0.01	U	0.01	U	0.01	U
Zinc	6010C	mg/L	0.04	U	0.04	U	0.04	U
Zirconium	6010C	mg/L	0.1	U	0.1	U	0.1	U

Notes:
ug/L - microgram per liter
mg/L - milligram per liter
ng/L - nanogram per liter
pg/L - picogram per liter
U - Compound not detected above the reporting limit

Table C3 - Northern Buffer Zone - Equipment Blank Samples

		Sample Name:	EB1-120513		EB1-121113		EB2-120513		EB2-121113		EB2-121613		EB3-120513	
		Location:	NBZ_DG_EB		NBZ_DG_EB		NBZ_DG_EB		NBZ_DG_EB		NBZ_DG_EB		NBZ_DG_EB	
		Sample Date:	12/05/2013		12/11/2013		12/05/2013		12/11/2013		12/16/2013		12/05/2013	
		Sample Type:	EB		EB		EB		EB		EB		EB	
		Lab:	LL		LL		LL		LL		LL		LL	
Analyte	Analytic Method	Units	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer
1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	1613B	pg/L	9.91	U	9.65	U	9.74	U	9.54	U	10	U	0.436	J
1,2,3,4,6,7,8-HPCDF	1613B	pg/L	9.91	U	9.65	U	9.74	U	9.54	U	10	U	9.8	U
1,2,3,4,7,8,9-HPCDF	1613B	pg/L	9.91	U	9.65	U	9.74	U	9.54	U	10	U	9.8	U
1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	1613B	pg/L	9.91	U	0.289	J	9.74	U	9.54	U	10	U	9.8	U
1,2,3,4,7,8-HXCDF	1613B	pg/L	9.91	U	9.65	U	9.74	U	9.54	U	10	U	0.225	J
1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	1613B	pg/L	9.91	U	9.65	U	9.74	U	0.285	J	10	U	9.8	U
1,2,3,6,7,8-HXCDF	1613B	pg/L	9.91	U	9.65	U	9.74	U	9.54	U	10	U	9.8	U
1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	1613B	pg/L	9.91	U	9.65	U	9.74	U	9.54	U	10	U	9.8	U
1,2,3,7,8,9-HXCDF	1613B	pg/L	9.91	U	0.258	J	9.74	U	9.54	U	10	U	0.39	J
1,2,3,7,8-Pentachlorodibenzofuran	1613B	pg/L	0.646	J	9.65	U	9.74	U	9.54	U	10	U	0.499	J
1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	1613B	pg/L	9.91	U	0.46	J	9.74	U	9.54	U	10	U	0.635	J
1-Methylnaphthalene	8270D SIM	µg/L	0.053	U	0.05	U	0.052	U	0.051	U	0.053	U	0.05	U
2,2-Dichlor-Propionic Acid	8151A	µg/L					1.2	U	1.2	U			1.2	U
2,3,4,6,7,8-HXCDF	1613B	pg/L	9.91	U	9.65	U	9.74	U	9.54	U	10	U	9.8	U
2,3,4,7,8-PECDF	1613B	pg/L	9.91	U	0.658	J	9.74	U	0.258	J	10	U	9.8	U
2,3,7,8-TCDD	1613B	pg/L	1.98	U	1.93	U	1.95	U	1.91	U	2	U	1.96	U
2,3,7,8-Tetrachlorodibenzofuran	1613B	pg/L	1.98	U	0.622	J	1.95	U	1.91	U	2	U	1.96	U
2,4,5-T	8151A	µg/L					0.049	U	0.05	U			0.049	U
2,4-D	8151A	µg/L					0.49	U	0.5	U			0.49	U
2,4-DB	8151A	µg/L					0.98	U	1	U			0.97	U
2-Methylnaphthalene	8270D SIM	µg/L	0.053	U	0.05	U	0.052	U	0.051	U	0.053	U	0.05	U
4,4'-DDD	8081B	µg/L	0.017	U	0.018	U	0.016	U	0.016	U			0.016	U
4,4'-DDE	8081B	µg/L	0.017	U	0.018	U	0.016	U	0.016	U			0.016	U
4,4'-DDT	8081B	µg/L	0.017	U	0.018	U	0.016	U	0.016	U			0.016	U
Acenaphthene	8270D SIM	µg/L	0.053	U	0.05	U	0.052	U	0.051	U	0.053	U	0.05	U
Acenaphthylene	8270D SIM	µg/L	0.053	U	0.05	U	0.052	U	0.051	U	0.053	U	0.05	U
Aldrin	8081B	µg/L	0.0083	U	0.009	U	0.0081	U	0.0082	U			0.008	U
Alpha-Bhc	8081B	µg/L	0.0083	U	0.009	U	0.0081	U	0.0082	U			0.008	U
Aluminum	6010C	mg/L			0.4	U	0.4	U	0.4	U	0.4	U	0.4	U
Anthracene	8270D SIM	µg/L	0.053	U	0.05	U	0.052	U	0.051	U	0.053	U	0.05	U
Antimony	6010C	mg/L			0.04	U	0.04	U	0.04	U	0.04	U	0.04	U
Aroclor 1016	8082A	µg/L	0.41	U					0.41	U			0.4	UJ
Aroclor 1221	8082A	µg/L	0.41	U					0.41	U			0.4	UJ
Aroclor 1232	8082A	µg/L	0.41	U					0.41	U			0.4	UJ
Aroclor 1242	8082A	µg/L	0.41	U					0.41	U			0.4	UJ
Aroclor 1248	8082A	µg/L	0.41	U					0.41	U			0.4	UJ
Aroclor 1254	8082A	µg/L	0.41	U					0.41	U			0.4	UJ
Aroclor 1260	8082A	µg/L	0.41	U					0.41	U			0.4	UJ
Aroclor 1262	8082A	µg/L	0.41	U					0.41	U			0.4	UJ
Aroclor 1268	8082A	µg/L	0.41	U					0.41	U			0.4	UJ
Aroclor 5432	8082A	µg/L	0.41	UJ					0.41	U			0.4	UJ
Aroclor 5442	8082A	µg/L	0.41	UJ					0.41	U			0.4	UJ
Aroclor 5460	8082A	µg/L	0.41	UJ					0.41	U			0.4	UJ
Arsenic	6010C	mg/L			0.04	U	0.04	U	0.04	U	0.04	U	0.04	U
Barium	6010C	mg/L			0.01	U	0.01	U	0.01	U	0.01	U	0.01	U
Benzo(a)anthracene	8270D SIM	µg/L	0.053	U	0.05	U	0.052	U	0.051	U	0.053	U	0.05	U
Benzo(a)pyrene	8270D SIM	µg/L	0.053	U	0.05	U	0.052	U	0.051	U	0.053	U	0.05	U
Benzo(b)fluoranthene	8270D SIM	µg/L	0.053	U	0.05	U	0.052	U	0.051	U	0.053	U	0.05	U
Benzo(e)pyrene	8270D SIM	µg/L	0.053	U	0.05	U	0.052	U	0.051	U	0.053	U	0.05	U
Benzo(g,h,i)perylene	8270D SIM	µg/L	0.053	U	0.05	U	0.052	U	0.051	U	0.053	U	0.05	U
Benzo(k)fluoranthene	8270D SIM	µg/L	0.053	U	0.05	U	0.052	U	0.051	U	0.053	U	0.05	U
Beryllium	6010C	mg/L			0.01	U	0.01	U	0.01	U	0.01	U	0.01	U
Beta-Bhc	8081B	µg/L	0.0083	U	0.009	U	0.0081	U	0.0082	U			0.008	U
Bis(2-ethylhexyl)phthalate	8270D SIM	µg/L	1.1	UJ	2.2		1	UJ	1	U	1.1	U	1	UJ
Boron	6010C	mg/L			0.1	U	0.1	U	0.1	U	0.1	U	0.1	U
Butylbenzylphthalate	8270D SIM	µg/L	1.1	U	1	U	1	U	1	U	1.1	U	1	U
Cadmium	6010C	mg/L			0.01	U	0.01	U	0.01	U	0.01	U	0.01	U
Calcium	6010C	mg/L			0.4	U	0.4	U	0.4	U	0.4	U	0.4	U
Chlordane	8081B	µg/L	0.41	U	0.45	U	0.41	U	0.41	U			0.4	U
Chromium	6010C	mg/L			0.03	U	0.03	U	0.03	U	0.03	U	0.03	U
Chrysene	8270D SIM	µg/L	0.053	U	0.05	U	0.052	U	0.051	U	0.053	U	0.05	U
Cobalt	6010C	mg/L			0.01	U	0.01	U	0.01	U	0.01	U	0.01	U
Copper	6010C	mg/L			0.02	U	0.02	U	0.02	U	0.02	U	0.02	U
Cyanide	9012B	mg/L											0.01	U
Delta-Bhc	8081B	µg/L	0.0083	U	0.009	U	0.0081	U	0.0082	U			0.008	U
Dibenzo(a,h)anthracene	8270D SIM	µg/L	0.053	U	0.05	U	0.052	U	0.051	U	0.053	U	0.05	U
Dicamba	8151A	µg/L					0.29	U	0.3	U			0.29	U
Dichlorprop	8151A	µg/L					0.49	U	0.5	U			0.49	U
Dieldrin	8081B	µg/L	0.017	U	0.018	U	0.016	U	0.016	U			0.016	U
Diethylphthalate	8270D SIM	µg/L	0.5	J	0.15	J	0.5	J	0.16	J	1.1	U	0.51	J
Dimethylphthalate	8270D SIM	µg/L	1.1	U	1	U	1	U	1	U	1.1	U	1	U
Di-n-butylphthalate	8270D SIM	µg/L	1.1	U	0.13	J	1	U	0.13	J	1.1	U	1	U
Dinitrobutyl Phenol	8151A	µg/L					0.49	U	0.5	U			0.49	U
Di-n-octylphthalate	8270D SIM	µg/L	1.1	U	1	U	1	U	1	U	0.06	J	1	U
EFH (C12-C14)	8015M	mg/L	0.1	U	0.1	U	0.097	U	0.1	U	0.099	U	0.1	U
EFH (C15-C20)	8015M	mg/L	0.1	U	0.1	U	0.097	U	0.1	U	0.099	U	0.1	U
EFH (C21-C30)	8015M	mg/L	0.1	U	0.1	U	0.097	U	0.1	U	0.099	U	0.1	U
EFH (C30-C40)	8015M	mg/L	0.51	U	0.51	U	0.49	U	0.51	U	0.5	U	0.52	U
EFH (C8-C11)	8015M	mg/L	0.1	U	0.1	U	0.097	U	0.1	U	0.099	U	0.1	U
Endosulfan I	8081B	µg/L	0.0083	U	0.009	U	0.0081	U	0.0082	U			0.008	U
Endosulfan II	8081B	µg/L	0.017	U	0.018	U	0.016	U	0.016	U			0.016	U
Endosulfan Sulfate	8081B	µg/L	0.017	U	0.018	U	0.016	U	0.016	U			0.016	U
Endrin	8081B	µg/L	0.017	U	0.018	UJ	0.016	U	0.016	UJ			0.016	U
Endrin Aldehyde	8081B	µg/L	0.083	U	0.09	U	0.081	U	0.082	U			0.08	U
Endrin Ketone	8081B	µg/L	0.017	U	0.018	U	0.016	U	0.016	U			0.016	U
Fluoranthene	8270D SIM	µg/L	0.053	U	0.05	U	0.052	U	0.012	J	0.053	U	0.05	U
Fluorene	8270D SIM	µg/L	0.053	U	0.05	U	0.052	U	0.051	U	0.053	U	0.05	U
Gamma-Bhc (Lindane)	8081B	µg/L	0.0083	U	0.009	U	0.0081	U	0.0082	U			0.008	U
Gasoline Range Organics (C5-C12)	8015M	µg/L			50	U			50	U	50	U		
Heptachlor	8081B	µg/L	0.0083	U	0.009	U	0.0081	U	0.0082	U			0.008	U
Heptachlor Epoxide	8081B	µg/L	0.0083	U	0.009	U	0.0081	U	0.0082	U			0.008	U
Indeno(1,2,3-cd)pyrene	8270D SIM	µg/L	0.053	U	0.05	U	0.052	U	0.051	U	0.053	U	0.05	U
Iron	6010C	mg/L			0.4	U	0.4	U	0.4	U	0.4	U	0.4	U
Lead	6010C	mg/L			0.03	U	0.03	U	0.03	U	0.03	U	0.03	U
Lithium	6010C	mg/L			0.04	U	0.04	U	0.04	U	0.04	U	0.04	U
Magnesium	6010C	mg/L			0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Manganese	6010C	mg/L			0.01	U	0.01	U	0.01	U	0.01	U	0.01	U
MCPA	8151A	µg/L					200	U	200	U			190	U
MCPP	8151A	µg/L					200	U	200	U			190	U
Mercury	7470A	mg/L			0.0002	U	0.0002	U	0.0002	U	0.0002	U	0.0002	U
Methoxychlor	8081B	µg/L	0.083	U	0.09	U	0.081	U	0.082	U			0.08	U
Mirex	8081B	µg/L	0.041	U	0.045	U	0.041	U	0.041	U			0.04	U
Molybdenum	6010C	mg/L			0.02	U	0.02	U	0.02	U	0.02	U	0.02	U
Naphthalene	8270D SIM	µg/L	0.053	U	0.05	U	0.052	U	0.051	U	0.053	U	0.05	U
Nickel	6010C	mg/L			0.02	U	0.02	U	0.02	U	0.02	U	0.02	U
Nitrate	300.0	mg/L							0.1	U				
N-Nitrosodimethylamine	8270D SIM	µg/L	0.053	U	0.05	U	0.052	U	0.051	U	0.053	U	0.05	U
OCDD	1613B	pg/L	19.8	U	19.3	U	19.5	U	19.1	U	20	U	19.6	U
OCDF	1613B	pg/L	19.8	U	19.3	U	19.5	U	19.1	U	20	U	19.6	U
pH	9040C	pH	6		6.9		5.7		6.4		5.6		5.6	
Phenanthrene	8270D SIM	µg/L	0.053	U	0.05	U	0.052	U	0.051	U	0.053	U	0.05	U
Phosphorus	6010C	mg/L			0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Potassium	6010C	mg/L			1	U	1	U	1	U	1	U	1	U
Pyrene	8270D SIM	µg/L	0.053	U	0.05	U	0.052	U	0.049	J	0.053	U	0.05	U
Selenium	6020A	mg/L			0.004	U	0.004	U	0.004	U	0.004	U	0.004	U
Silver	6020A	mg/L			0.001	U	0.001	U	0.001	U	0.001	U	0.001	U
Silvex (2,4,5-TP)	8151A	µg/L					0.049	U	0.05	U			0.049	U
Sodium	6010C	mg/L			2	U	2	U	2	U	2	U	2	U
Strontium	6020A	mg/L			0.002	U	0.002	U	0.002	U	0.002	U	0.002	U
TCDD TEQ	1613B	pg/L	0.0004		0.0289		0	U	0.0023		0.0482		0.039	
Technical Toxaphene	8081B	µg/L	0.83	U	0.9	U	0.81	U	0.82	U			0.8	U
Thallium	6020A	mg/L			0.001	U	0.001	U	0.001	U	0.001	U	0.001	U
Tin	6010C	mg/L			0.04	U	0.04	U	0.04	U	0.04	U	0.04	U
Titanium	6010C	mg/L			0.02	U	0.02	U	0.02	U	0.02	U	0.02	U
Vanadium	6010C	mg/L			0.01	U	0.01	U	0.01	U	0.01	U	0.01	U

Table C3 - Northern Buffer Zone - Equipment Blank Samples

		Sample Name:	EB1-120513		EB1-121113		EB2-120513		EB2-121113		EB2-121613		EB3-120513	
		Location:	NBZ_DG_EB		NBZ_DG_EB		NBZ_DG_EB		NBZ_DG_EB		NBZ_DG_EB		NBZ_DG_EB	
		Sample Date:	12/05/2013		12/11/2013		12/05/2013		12/11/2013		12/16/2013		12/05/2013	
		Sample Type:	EB		EB		EB		EB		EB		EB	
		Lab:	LL		LL		LL		LL		LL		LL	
Analyte	Analytic Method	Units	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer
Zinc	6010C	mg/L			0.04	U	0.04	U	0.003	J	0.04	U	0.04	U
Zirconium	6010C	mg/L			0.1	U	0.1	U	0.1	U	0.1	U	0.1	U

Notes:
ug/L - microgram per liter
mg/L - milligram per liter
ng/L - nanogram per liter
pg/L - picogram per liter
U - Compound not detected above the reporting limit

Table C4 - Subarea 7 - Field Blanks

		Sample Name:	FB-041113		FB-041613	
		Location:	FIELD BLANK		FIELD BLANK	
		Sample Date:	04/11/2013		04/16/2013	
		Sample Type:	FB		FB	
		Lab:	LL		LL	
Analyte	Analytic Method	Units	Concentration	Final Qualifer	Concentration	Final Qualifer
1,1,1,2-Tetrachloroethane	8260B	µg/L	5	U	5	U
1,1,1-Trichloroethane	8260B	µg/L	5	U	5	U
1,1,2,2-Tetrachloroethane	8260B	µg/L	5	U	5	U
1,1,2-Trichloro-1,2,2-trifluoroethane	8260B	µg/L	5	U	5	U
1,1,2-Trichloroethane	8260B	µg/L	5	U	5	U
1,1-Dichloroethane	8260B	µg/L	5	U	5	U
1,1-Dichloroethene	8260B	µg/L	5	U	5	U
1,1-Dichloropropene	8260B	µg/L	5	U	5	U
1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	1613B	pg/L	9.76	U	9.71	U
1,2,3,4,6,7,8-HPCDF	1613B	pg/L	9.76	U	9.71	U
1,2,3,4,7,8,9-HPCDF	1613B	pg/L	9.76	U	9.71	U
1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	1613B	pg/L	0.125	J	9.71	U
1,2,3,4,7,8-HXCDF	1613B	pg/L	9.76	U	0.257	J
1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	1613B	pg/L	9.76	U	9.71	U
1,2,3,6,7,8-HXCDF	1613B	pg/L	9.76	U	9.71	U
1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	1613B	pg/L	9.76	U	9.71	U
1,2,3,7,8,9-HXCDF	1613B	pg/L	9.76	U	9.71	U
1,2,3,7,8-Pentachlorodibenzofuran	1613B	pg/L	9.76	U	9.71	U
1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	1613B	pg/L	9.76	U	9.71	U
1,2,3-Trichlorobenzene	8260B	µg/L	5	U	5	U
1,2,3-Trichloropropane	8260B	µg/L	5	U	5	U
1,2,4-Trichlorobenzene	8260B	µg/L	5	U	5	U
1,2,4-Trimethylbenzene	8260B	µg/L	5	U	5	U
1,2-Dibromo-3-chloropropane	8260B	µg/L	5	U	5	U
1,2-Dibromoethane	8260B	µg/L	5	U	5	U
1,2-Dichlorobenzene	8260B	µg/L	5	U	5	U
1,2-Dichloroethane	8260B	µg/L	5	U	5	U
1,2-Dichloropropane	8260B	µg/L	5	U	5	U
1,3,5-Trimethylbenzene	8260B	µg/L	5	U	5	U
1,3,5-Trinitrobenzene	8330A	µg/L	0.6	UJ	0.6	U
1,3-Dichlorobenzene	8260B	µg/L	5	U	5	U
1,3-Dichloropropane	8260B	µg/L	5	U	5	U
1,4-Dichlorobenzene	8260B	µg/L	5	U	5	U
1,4-Dioxane	8260B SIM	µg/L	2	U	2	U
1-Chlorohexane	8260B	µg/L	5	U	5	U
1-Methylnaphthalene	8270D SIM	µg/L	0.019	J	0.052	U
2,2-Dichloropropane	8260B	µg/L	5	U	5	U
2,2-Dichlor-Propionic Acid	8151A	µg/L	1.2	U	1.2	UJ
2,3,4,6,7,8-HXCDF	1613B	pg/L	9.76	U	9.71	U
2,3,4,7,8-PECDF	1613B	pg/L	9.76	U	9.71	U
2,3,7,8-TCDD	1613B	pg/L	1.95	U	1.94	U
2,3,7,8-Tetrachlorodibenzofuran	1613B	pg/L	1.95	U	1.94	U
2,4,5-T	8151A	µg/L	0.049	U	0.049	UJ
2,4,6-Trinitrotoluene	8330A	µg/L	0.6	UJ	0.6	U
2,4-D	8151A	µg/L	0.49	U	0.49	U
2,4-DB	8151A	µg/L	0.98	U	0.98	U
2,4-Diamino-6-nitrotoluene	8330A	µg/L	0.6	U	0.6	U
2,4-Dinitrotoluene	8330A	µg/L	0.6	UJ	0.6	U
2,6-Diamino-4-nitrotoluene	8330A	µg/L	0.6	U	0.6	U
2,6-Dinitrotoluene	8330A	µg/L	0.6	U	0.6	U
2-Amino-4,6-Dinitrotoluene	8330A	µg/L	0.6	UJ	0.6	U
2-Butanone (MEK)	8260B	µg/L	10	U	10	U
2-Chloro-1,1,1-trifluoroethane	8260B	µg/L	5	U	5	U
2-Chloroethyl Vinyl Ether	8260B	µg/L	10	U	10	U
2-Chlorotoluene	8260B	µg/L	5	U	5	U
2-Hexanone	8260B	µg/L	10	U	10	U
2-Methylnaphthalene	8270D SIM	µg/L	0.024	J	0.012	J
2-Nitrotoluene	8330A	µg/L	0.6	UJ	0.6	U
2-Phenylbutane	8260B	µg/L	5	U	5	U
2-Propanol	8015C	µg/L	1000	UJ	1000	UJ
3-Nitrotoluene	8330A	µg/L	1.2	UJ	1.2	U
4,4'-DDD	8081B	µg/L	0.016	U	0.017	U
4,4'-DDE	8081B	µg/L	0.016	U	0.017	U
4,4'-DDT	8081B	µg/L	0.016	U	0.017	U
4-Amino-2,6-Dinitrotoluene	8330A	µg/L	0.6	U	0.6	U
4-Chlorotoluene	8260B	µg/L	5	U	5	U
4-Methyl-2-pentanone (MIBK)	8260B	µg/L	10	U	10	U
4-Nitrotoluene	8330A	µg/L	1.2	UJ	1.2	U
Acenaphthene	8270D SIM	µg/L	0.051	U	0.052	U
Acenaphthylene	8270D SIM	µg/L	0.051	U	0.052	U
Acetone	8260B	µg/L	20	U	20	U
Acrolein	8260B	µg/L	100	U	100	U
Acrylonitrile	8260B	µg/L	20	U	20	U
Aldrin	8081B	µg/L	0.0081	U	0.0086	U
Alpha-Bhc	8081B	µg/L	0.0081	U	0.0086	U
Aluminum	6010C	mg/L	0.4	U	0.4	U
Anthracene	8270D SIM	µg/L	0.051	U	0.052	U
Antimony	6010C	mg/L	0.04	U	0.04	U
Aroclor 1016	8082A	µg/L	0.4	U	0.43	U
Aroclor 1221	8082A	µg/L	0.4	U	0.43	U
Aroclor 1232	8082A	µg/L	0.4	U	0.43	U
Aroclor 1242	8082A	µg/L	0.4	U	0.43	U
Aroclor 1248	8082A	µg/L	0.4	U	0.43	U
Aroclor 1254	8082A	µg/L	0.4	U	0.43	U
Aroclor 1260	8082A	µg/L	0.4	U	0.43	U
Aroclor 1262	8082A	µg/L	0.4	U	0.43	U
Aroclor 1268	8082A	µg/L	0.4	U	0.43	U
Aroclor 5432	8082A	µg/L	0.4	U	0.43	U
Aroclor 5442	8082A	µg/L	0.4	U	0.43	U
Aroclor 5460	8082A	µg/L	0.4	U	0.43	U
Arsenic	6010C	mg/L	0.04	U	0.04	U
Barium	6010C	mg/L	0.01	U	0.01	U
Benzene	8260B	µg/L	5	U	5	U
Benzo(a)anthracene	8270D SIM	µg/L	0.051	U	0.052	U
Benzo(a)pyrene	8270D SIM	µg/L	0.051	U	0.052	U
Benzo(b)fluoranthene	8270D SIM	µg/L	0.051	U	0.052	U
Benzo(e)pyrene	8270D SIM	µg/L	0.051	U	0.052	U
Benzo(g,h,i)perylene	8270D SIM	µg/L	0.051	U	0.052	U
Benzo(k)fluoranthene	8270D SIM	µg/L	0.051	U	0.052	U
Beryllium	6010C	mg/L	0.01	U	0.01	U
Beta-Bhc	8081B	µg/L	0.0081	U	0.0086	U
Bis(2-ethylhexyl)phthalate	8270D SIM	µg/L	1	U	1	U
Boron	6010C	mg/L	0.1	U	0.1	U
Bromobenzene	8260B	µg/L	5	U	5	U
Bromochloromethane	8260B	µg/L	5	U	5	U
Bromodichloromethane	8260B	µg/L	5	U	5	U
Bromoform	8260B	µg/L	5	U	5	U
Bromomethane	8260B	µg/L	5	U	5	U
Butylbenzylphthalate	8270D SIM	µg/L	1	U	1	U
Cadmium	6010C	mg/L	0.01	U	0.01	U
Calcium	6010C	mg/L	0.4	U	0.4	U
Carbon Disulfide	8260B	µg/L	5	U	5	U
Carbon Tetrachloride	8260B	µg/L	5	U	5	U
Chlordane	8081B	µg/L	0.4	U	0.43	U
Chlorobenzene	8260B	µg/L	5	U	5	U
Chloroethane	8260B	µg/L	5	U	5	U
Chloroform	8260B	µg/L	5	U	3	J
Chloromethane	8260B	µg/L	5	U	5	U
Chlorotrifluoroethylene	8260B	µg/L	5	U	5	U
Chromium	6010C	mg/L	0.03	U	0.03	U
Chromium (Hexavalent Compounds)	7199	µg/L	10	U	10	U
Chrysene	8270D SIM	µg/L	0.051	U	0.052	U
cis-1,2-Dichloroethene	8260B	µg/L	5	U	5	U
cis-1,3-Dichloropropene	8260B	µg/L	5	U	5	U
Cobalt	6010C	mg/L	0.01	U	0.01	U
Copper	6010C	mg/L	0.02	U	0.02	U
Cyanide	9012B	mg/L	0.01	U	0.01	U
Cymene	8260B	µg/L	5	U	5	U
Delta-Bhc	8081B	µg/L	0.0081	U	0.0086	U
Di isopropyl Ether	8260B	µg/L	5	U	5	U
Dibenzo(a,h)anthracene	8270D SIM	µg/L	0.051	U	0.052	U
Dibromochloromethane	8260B	µg/L	5	U	5	U

Table C4 - Subarea 7 - Field Blanks

		Sample Name:	FB-041113		FB-041613	
		Location:	FIELD BLANK		FIELD BLANK	
		Sample Date:	04/11/2013		04/16/2013	
		Sample Type:	FB		FB	
		Lab:	LL		LL	
Analyte	Analytic Method	Units	Concentration	Final Qualifer	Concentration	Final Qualifer
Dibromomethane	8260B	µg/L	5	U	5	U
Dicamba	8151A	µg/L	0.29	U	0.29	UJ
Dichlorodifluoromethane	8260B	µg/L	5	U	5	U
Dichlorprop	8151A	µg/L	0.49	U	0.49	UJ
Dieldrin	8081B	µg/L	0.016	U	0.017	U
Diethylene Glycol	8015C	mg/L	10	UJ	10	U
Diethylphthalate	8270D SIM	µg/L	0.18	J	1	U
Dimethylphthalate	8270D SIM	µg/L	1	U	1	U
Di-n-butylphthalate	8270D SIM	µg/L	0.17	J	0.11	J
Dinitrobutyl Phenol	8151A	µg/L	0.49	U	0.49	UJ
Di-n-octylphthalate	8270D SIM	µg/L	1	UJ	1	UJ
EFH (C12-C14)	8015M	mg/L	0.57	U	0.59	U
EFH (C15-C20)	8015M	mg/L	0.57	U	0.59	U
EFH (C21-C30)	8015M	mg/L	0.57	U	0.59	U
EFH (C30-C40)	8015M	mg/L	0.57	U	0.59	UJ
EFH (C8-C11)	8015M	mg/L	0.57	UJ	0.59	U
Endosulfan I	8081B	µg/L	0.0081	U	0.0086	U
Endosulfan II	8081B	µg/L	0.016	U	0.017	U
Endosulfan Sulfate	8081B	µg/L	0.016	U	0.017	U
Endrin	8081B	µg/L	0.016	U	0.017	U
Endrin Aldehyde	8081B	µg/L	0.081	U	0.086	U
Endrin Ketone	8081B	µg/L	0.016	U	0.017	U
Ethanol	8015C	µg/L	1000	UJ	1000	UJ
Ethylbenzene	8260B	µg/L	5	U	5	U
Ethylene Glycol	8015C	mg/L	10	UJ	10	U
Fluoranthene	8270D SIM	µg/L	0.051	U	0.052	U
Fluorene	8270D SIM	µg/L	0.051	U	0.052	U
Fluoride	300	mg/L	0.1	U	0.1	U
Formaldehyde	8315A	µg/L	50	U	50	U
Gamma-Bhc (Lindane)	8081B	µg/L	0.0081	U	0.0086	U
Gasoline Range Organics (C5-C12)	8015M	µg/L	50	U	50	U
Heptachlor	8081B	µg/L	0.0081	U	0.0086	U
Heptachlor Epoxide	8081B	µg/L	0.0081	U	0.0086	U
Hexachloro-1,3-butadiene	8260B	µg/L	5	U	5	U
HMX	8330A	µg/L	2	UJ	2	U
Indeno(1,2,3-cd)pyrene	8270D SIM	µg/L	0.051	U	0.052	U
Iron	6010C	mg/L	0.4	U	0.4	U
Isopropylbenzene	8260B	µg/L	5	U	5	U
Lead	6010C	mg/L	0.03	U	0.03	U
Lithium	6010C	mg/L	0.04	U	0.04	U
m,p-Xylene	8260B	µg/L	5	U	5	U
Magnesium	6010C	mg/L	0.2	U	0.2	U
Manganese	6010C	mg/L	0.01	U	0.01	U
MCPA	8151A	µg/L	200	U	200	U
MCPP	8151A	µg/L	200	U	200	UJ
M-Dinitrobenzene	8330A	µg/L	0.6	UJ	0.6	U
Mercury	7470A	mg/L	0.0002	U	0.0002	U
Methanol	8015C	µg/L	1000	UJ	1000	UJ
Methoxychlor	8081B	µg/L	0.081	U	0.086	U
Methyl Iodide	8260B	µg/L	5	U	5	U
Methyl Tert-Butyl Ether	8260B	µg/L	5	U	5	U
Methylene Chloride	8260B	µg/L	2	J	18	
Mirex	8081B	µg/L	0.2	U	0.22	U
Molybdenum	6010C	mg/L	0.02	U	0.02	U
m-Terphenyl	8015B	mg/L	0.0048	U	0.0049	U
Naphthalene	8270D SIM	µg/L	0.17		0.052	U
n-Butylbenzene	8260B	µg/L	5	U	5	U
Nickel	6010C	mg/L	0.02	U	0.02	U
Nitrate	300	mg/L	0.1	U	0.1	U
Nitrite-NO2	300	mg/L	0.1	U	0.1	U
Nitrobenzene	8330A	µg/L	0.6	U	0.6	U
N-Nitrosodimethylamine	8270D SIM	µg/L	0.051	U	0.052	U
n-Propylbenzene	8260B	µg/L	5	U	5	U
OCDD	1613B	pg/L	19.5	U	19.4	U
OCDF	1613B	pg/L	19.5	U	19.4	U
o-Terphenyl	8015B	mg/L	0.0048	U	0.0049	U
o-Xylene	8260B	µg/L	5	U	5	U
Perchlorate	6850	µg/L	1	U	1	U
pH	9040C	pH	7.5		5.7	
Phenanthrene	8270D SIM	µg/L	0.051	U	0.052	U
Phosphorus	6010C	mg/L	0.2	U	0.2	U
Potassium	6010C	mg/L	1	U	1	U
Propylene Glycol	8015C	mg/L	10	UJ	10	U
p-Terphenyl	8015B	mg/L	0.0048	U	0.0049	U
Pyrene	8270D SIM	µg/L	0.051	U	0.052	U
RDX	8330A	µg/L	0.6	UJ	0.6	U
Selenium	6020A	mg/L	0.004	U	0.004	U
Silver	6020A	mg/L	0.001	U	0.001	U
Silvex (2,4,5-TP)	8151A	µg/L	0.049	U	0.049	U
Sodium	6010C	mg/L	2	U	2	U
Strontium	6020A	mg/L	0.002	U	0.002	U
Styrene	8260B	µg/L	5	U	5	U
TCDD TEQ	1613B	pg/L	0.082		0.0354	
Technical Toxaphene	8081B	µg/L	2.4	U	2.6	U
tert-Butyl ethyl ether	8260B	µg/L	5	U	5	U
tert-Butylbenzene	8260B	µg/L	5	U	5	U
Tertiary amyl methyl ether	8260B	µg/L	5	U	5	U
Tertiary butyl alcohol	8260B	µg/L	50	U	50	U
Tetrachloroethene	8260B	µg/L	5	U	5	U
Tetryl	8330A	µg/L	0.6	U	0.6	U
Thallium	6020A	mg/L	0.001	U	0.001	U
Tin	6010C	mg/L	0.04	U	0.0029	J
Titanium	6010C	mg/L	0.02	U	0.02	U
Toluene	8260B	µg/L	5	U	5	U
trans-1,2-Dichloroethene	8260B	µg/L	5	U	5	U
trans-1,3-Dichloropropene	8260B	µg/L	5	U	5	U
Trichloroethene	8260B	µg/L	5	U	5	U
Trichlorofluoromethane	8260B	µg/L	5	U	5	U
Triethylene Glycol	8015C	mg/L	10	UJ	10	U
Vanadium	6010C	mg/L	0.01	U	0.01	U
Vinyl Acetate	8260B	µg/L	10	U	10	U
Vinyl Chloride	8260B	µg/L	5	U	5	U
Zinc	6010C	mg/L	0.04	U	0.04	U
Zirconium	6010C	mg/L	0.1	U	0.1	U

Notes:
ug/L - microgram per liter
mg/L - milligram per liter
ng/L - nanogram per liter
pg/L - picogram per liter
U - Compound not detected above the reporting limit

Table C5 - Northern Buffer Zone - Field Blanks

		Sample Name:	FB-041613	
		Location:	FIELD BLANK	
		Sample Date:	04/16/2013	
		Sample Type:	FB	
		Lab:	LL	
Analyte	Analytic Method	Units	Concentration	Final Qualifer
1,1,1,2-Tetrachloroethane	8260B	µg/L	5	U
1,1,1-Trichloroethane	8260B	µg/L	5	U
1,1,2,2-Tetrachloroethane	8260B	µg/L	5	U
1,1,2-Trichloro-1,2,2-trifluoroethane	8260B	µg/L	5	U
1,1,2-Trichloroethane	8260B	µg/L	5	U
1,1'-Biphenyl	8270D	µg/L	1	U
1,1-Dichloroethane	8260B	µg/L	5	U
1,1-Dichloroethene	8260B	µg/L	5	U
1,1-Dichloropropene	8260B	µg/L	5	U
1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	1613B	pg/L	9.71	U
1,2,3,4,6,7,8-HPCDF	1613B	pg/L	9.71	U
1,2,3,4,7,8,9-HPCDF	1613B	pg/L	9.71	U
1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	1613B	pg/L	9.71	U
1,2,3,4,7,8-HXCDF	1613B	pg/L	0.257	J
1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	1613B	pg/L	9.71	U
1,2,3,6,7,8-HXCDF	1613B	pg/L	9.71	U
1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	1613B	pg/L	9.71	U
1,2,3,7,8,9-HXCDF	1613B	pg/L	9.71	U
1,2,3,7,8-Pentachlorodibenzofuran	1613B	pg/L	9.71	U
1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	1613B	pg/L	9.71	U
1,2,3-Trichlorobenzene	8260B	µg/L	5	U
1,2,3-Trichloropropane	8260B	µg/L	5	U
1,2,4-Trichlorobenzene	8260B	µg/L	5	U
1,2,4-Trichlorobenzene	8270D	µg/L	1	U
1,2,4-Trimethylbenzene	8260B	µg/L	5	U
1,2-Dibromo-3-chloropropane	8260B	µg/L	5	U
1,2-Dibromoethane	8260B	µg/L	5	U
1,2-Dichlorobenzene	8260B	µg/L	5	U
1,2-Dichlorobenzene	8270D	µg/L	1	U
1,2-Dichloroethane	8260B	µg/L	5	U
1,2-Dichloropropane	8260B	µg/L	5	U
1,2-Diphenylhydrazine	8270D	µg/L	1	U
1,3,5-Trimethylbenzene	8260B	µg/L	5	U
1,3,5-Trinitrobenzene	8330A	µg/L	0.6	U
1,3-Dichlorobenzene	8260B	µg/L	5	U
1,3-Dichlorobenzene	8270D	µg/L	1	U
1,3-Dichloropropane	8260B	µg/L	5	U
1,4-Dichlorobenzene	8260B	µg/L	5	U
1,4-Dichlorobenzene	8270D	µg/L	1	U
1,4-Dioxane	8260B SIM	µg/L	2	U
1-Chlorohexane	8260B	µg/L	5	U
1-Methylnaphthalene	8270D	µg/L	0.5 0.5	U U
1-Methylnaphthalene	8270D SIM	µg/L	0.052	U
2,2-Dichloropropane	8260B	µg/L	5	U
2,2-Dichlor-Propionic Acid	8151A	µg/L	1.2	UJ
2,3,4,6,7,8-HXCDF	1613B	pg/L	9.71	U
2,3,4,7,8-PECDF	1613B	pg/L	9.71	U
2,3,7,8-TCDD	1613B	pg/L	1.94	U
2,3,7,8-Tetrachlorodibenzofuran	1613B	pg/L	1.94	U
2,4,5-T	8151A	µg/L	0.049	UJ
2,4,5-Trichlorophenol	8270D	µg/L	1	U
2,4,6-Trichlorophenol	8270D	µg/L	1	U
2,4,6-Trinitrotoluene	8330A	µg/L	0.6	U
2,4-D	8151A	µg/L	0.49	U
2,4-DB	8151A	µg/L	0.98	U
2,4-Diamino-6-nitrotoluene	8330A	µg/L	0.6	U
2,4-Dichlorophenol	8270D	µg/L	1	U
2,4-Dimethylphenol	8270D	µg/L	1	U
2,4-Dinitrophenol	8270D	µg/L	31	U
2,4-Dinitrotoluene	8330A	µg/L	0.6	U
2,6-Diamino-4-nitrotoluene	8330A	µg/L	0.6	U
2,6-Dichlorophenol	8270D	µg/L	1	U
2,6-Dinitrotoluene	8330A	µg/L	0.6	U
2-Amino-4,6-Dinitrotoluene	8330A	µg/L	0.6	U
2-Butanone (MEK)	8260B	µg/L	10	U
2-Chloro-1,1,1-trifluoroethane	8260B	µg/L	5	U
2-Chloroethyl Vinyl Ether	8260B	µg/L	10	U
2-Chloronaphthalene	8270D	µg/L	1	U
2-Chlorophenol	8270D	µg/L	1	U
2-Chlorotoluene	8260B	µg/L	5	U
2-Hexanone	8260B	µg/L	10	U
2-Methylnaphthalene	8270D	µg/L	0.5 0.5	U U
2-Methylnaphthalene	8270D SIM	µg/L	0.012	J
2-Methylphenol	8270D	µg/L	1	U
2-Nitroaniline	8270D	µg/L	1	U
2-Nitrophenol	8270D	µg/L	1	U
2-Nitrotoluene	8330A	µg/L	0.6	U
2-Phenylbutane	8260B	µg/L	5	U
2-Propanol	8015C	µg/L	1000	UJ
3,3'-Dichlorobenzidine	8270D	µg/L	5	U
3,5-Dimethylphenol	8270D	µg/L	10	U
3-Nitroaniline	8270D	µg/L	1	U
3-Nitrotoluene	8330A	µg/L	1.2	U
4,4'-DDD	8081B	µg/L	0.017	U
4,4'-DDE	8081B	µg/L	0.017	U
4,4'-DDT	8081B	µg/L	0.017	U
4,6-Dinitro-2-methylphenol	8270D	µg/L	16	U
4-Amino-2,6-Dinitrotoluene	8330A	µg/L	0.6	U
4-Bromophenyl-phenylether	8270D	µg/L	1	U
4-Chloro-3-methylphenol	8270D	µg/L	1	U
4-Chloroaniline	8270D	µg/L	1	U
4-Chlorophenyl-phenylether	8270D	µg/L	1	U
4-Chlorotoluene	8260B	µg/L	5	U
4-Methyl-2-pentanone (MIBK)	8260B	µg/L	10	U
4-Methylphenol	8270D	µg/L	1	U
4-Nitroaniline	8270D	µg/L	1	U
4-Nitrophenol	8270D	µg/L	31	U
4-Nitrotoluene	8330A	µg/L	1.2	U
Acenaphthene	8270D	µg/L	0.5 0.5	U U
Acenaphthene	8270D SIM	µg/L	0.052	U
Acenaphthylene	8270D	µg/L	0.5 0.5	U U
Acenaphthylene	8270D SIM	µg/L	0.052	U
Acetone	8260B	µg/L	20	U
Acrolein	8260B	µg/L	100	U
Acrylonitrile	8260B	µg/L	20	U
Aldrin	8081B	µg/L	0.0086	U
Alpha-Bhc	8081B	µg/L	0.0086	U
Aluminum	6010C	mg/L	0.4	U
Aniline	8270D	µg/L	1	U
Anthracene	8270D	µg/L	0.5 0.5	U U
Anthracene	8270D SIM	µg/L	0.052	U
Antimony	6010C	mg/L	0.04	U
Aroclor 1016	8082A	µg/L	0.43	U
Aroclor 1221	8082A	µg/L	0.43	U
Aroclor 1232	8082A	µg/L	0.43	U
Aroclor 1242	8082A	µg/L	0.43	U
Aroclor 1248	8082A	µg/L	0.43	U
Aroclor 1254	8082A	µg/L	0.43	U
Aroclor 1260	8082A	µg/L	0.43	U
Aroclor 1262	8082A	µg/L	0.43	U
Aroclor 1268	8082A	µg/L	0.43	U
Aroclor 5432	8082A	µg/L	0.43	U
Aroclor 5442	8082A	µg/L	0.43	U
Aroclor 5460	8082A	µg/L	0.43	U
Arsenic	6010C	mg/L	0.04	U
Barium	6010C	mg/L	0.01	U

Table C5 - Northern Buffer Zone - Field Blanks

		Sample Name:	FB-041613	
		Location:	FIELD BLANK	
		Sample Date:	04/16/2013	
		Sample Type:	FB	
		Lab:	LL	
Analyte	Analytic Method	Units	Concentration	Final Qualifer
Benzene	8260B	µg/L	5	U
Benzidine	8270D	µg/L	62	U
Benzo(a)anthracene	8270D	µg/L	0.5	U
			0.5	U
Benzo(a)anthracene	8270D SIM	µg/L	0.052	U
Benzo(a)pyrene	8270D	µg/L	0.5	U
			0.5	U
Benzo(a)pyrene	8270D SIM	µg/L	0.052	U
Benzo(b)fluoranthene	8270D	µg/L	0.5	U
			0.5	U
Benzo(b)fluoranthene	8270D SIM	µg/L	0.052	U
Benzo(e)pyrene	8270D SIM	µg/L	0.052	U
Benzo(g,h,i)perylene	8270D	µg/L	0.5	U
			0.5	U
Benzo(g,h,i)perylene	8270D SIM	µg/L	0.052	U
Benzo(k)fluoranthene	8270D	µg/L	0.5	U
			0.5	U
Benzo(k)fluoranthene	8270D SIM	µg/L	0.052	U
Benzoic Acid	8270D	µg/L	16	UJ
Benzyl Alcohol	8270D	µg/L	16	U
Beryllium	6010C	mg/L	0.01	U
Beta-Bhc	8081B	µg/L	0.0086	U
bis(2-chloroethoxy)methane	8270D	µg/L	1	U
bis(2-chloroethyl) ether	8270D	µg/L	1	U
bis(2-chloroisopropyl) ether	8270D	µg/L	1	U
Bis(2-ethylhexyl)phthalate	8270D	µg/L	5	U
			5	U
Bis(2-ethylhexyl)phthalate	8270D SIM	µg/L	1	U
Boron	6010C	mg/L	0.1	U
Bromide	300.0	mg/L	0.5	U
Bromobenzene	8260B	µg/L	5	U
Bromochloromethane	8260B	µg/L	5	U
Bromodichloromethane	8260B	µg/L	5	U
Bromoform	8260B	µg/L	5	U
Bromomethane	8260B	µg/L	5	U
Butylbenzylphthalate	8270D	µg/L	5	U
			5	U
Butylbenzylphthalate	8270D SIM	µg/L	1	U
Cadmium	6010C	mg/L	0.01	U
Calcium	6010C	mg/L	0.4	U
Carbazole	8270D	µg/L	1	U
Carbon Disulfide	8260B	µg/L	5	U
Carbon Tetrachloride	8260B	µg/L	5	U
Chlordane	8081B	µg/L	0.43	U
Chloride	300.0	mg/L	0.4	U
Chlorobenzene	8260B	µg/L	5	U
Chloroethane	8260B	µg/L	5	U
Chloroform	8260B	µg/L	3	J
Chloromethane	8260B	µg/L	5	U
Chlorotrifluoroethylene	8260B	µg/L	5	U
Chromium	6010C	mg/L	0.03	U
Chromium (Hexavalent Compounds)	7199	µg/L	10	U
Chrysene	8270D	µg/L	0.5	U
			0.5	U
Chrysene	8270D SIM	µg/L	0.052	U
cis-1,2-Dichloroethene	8260B	µg/L	5	U
cis-1,3-Dichloropropene	8260B	µg/L	5	U
Cobalt	6010C	mg/L	0.01	U
Copper	6010C	mg/L	0.02	U
Cyanide	9012B	mg/L	0.01	U
Cymene	8260B	µg/L	5	U
Delta-Bhc	8081B	µg/L	0.0086	U
Di isopropyl Ether	8260B	µg/L	5	U
Dibenzo(a,h)anthracene	8270D	µg/L	0.5	U
			0.5	U
Dibenzo(a,h)anthracene	8270D SIM	µg/L	0.052	U
Dibenzofuran	8270D	µg/L	1	U
Dibromochloromethane	8260B	µg/L	5	U
Dibromomethane	8260B	µg/L	5	U
Dicamba	8151A	µg/L	0.29	UJ
Dichlorodifluoromethane	8260B	µg/L	5	U
Dichlorprop	8151A	µg/L	0.49	UJ
Dieldrin	8081B	µg/L	0.017	U
Diethylene Glycol	8015C	mg/L	10	U
Diethylphthalate	8270D	µg/L	5	U
			5	U
Diethylphthalate	8270D SIM	µg/L	1	U
Dimethylphthalate	8270D	µg/L	5	U
			5	U
Dimethylphthalate	8270D SIM	µg/L	1	U
Di-n-butylphthalate	8270D	µg/L	5	U
			5	U
Di-n-butylphthalate	8270D SIM	µg/L	0.11	J
Dinitrobutyl Phenol	8151A	µg/L	0.49	UJ
Di-n-octylphthalate	8270D	µg/L	5	U
			5	U
Di-n-octylphthalate	8270D SIM	µg/L	1	UJ
Diphenylamine	8270D	µg/L	5	U
EFH (C12-C14)	8015M	mg/L	0.59	U
EFH (C15-C20)	8015M	mg/L	0.59	U
EFH (C21-C30)	8015M	mg/L	0.59	U
EFH (C30-C40)	8015M	mg/L	0.59	UJ
EFH (C8-C11)	8015M	mg/L	0.59	U
Endosulfan I	8081B	µg/L	0.0086	U
Endosulfan II	8081B	µg/L	0.017	U
Endosulfan Sulfate	8081B	µg/L	0.017	U
Endrin	8081B	µg/L	0.017	U
Endrin Aldehyde	8081B	µg/L	0.086	U
Endrin Ketone	8081B	µg/L	0.017	U
Ethanol	8015C	µg/L	1000	UJ
Ethylbenzene	8260B	µg/L	5	U
Ethylene Glycol	8015C	mg/L	10	U
Fluoranthene	8270D	µg/L	0.5	U
			0.5	U
Fluoranthene	8270D SIM	µg/L	0.052	U
Fluorene	8270D	µg/L	0.5	U
			0.5	U
Fluorene	8270D SIM	µg/L	0.052	U
Fluoride	300.0	mg/L	0.1	U
Formaldehyde	8315A	µg/L	50	U
Gamma-Bhc (Lindane)	8081B	µg/L	0.0086	U
Gasoline Range Organics (C5-C12)	8015M	µg/L	50	U
Heptachlor	8081B	µg/L	0.0086	U
Heptachlor Epoxide	8081B	µg/L	0.0086	U
Hexachloro-1,3-butadiene	8260B	µg/L	5	U
Hexachlorobenzene	8270D	µg/L	0.5	U
Hexachlorobutadiene	8270D	µg/L	1	U
Hexachlorocyclopentadiene	8270D	µg/L	16	U
Hexachloroethane	8270D	µg/L	5	U
HMX	8330A	µg/L	2	U
Indeno(1,2,3-cd)pyrene	8270D	µg/L	0.5	U
			0.5	U
Indeno(1,2,3-cd)pyrene	8270D SIM	µg/L	0.052	U
Iron	6010C	mg/L	0.4	U
Isophorone	8270D	µg/L	1	U
Isopropylbenzene	8260B	µg/L	5	U
Lead	6010C	mg/L	0.03	U
Lithium	6010C	mg/L	0.04	U
m,p-Xylene	8260B	µg/L	5	U
Magnesium	6010C	mg/L	0.2	U
Manganese	6010C	mg/L	0.01	U

Table C5 - Northern Buffer Zone - Field Blanks

		Sample Name:	FB-041613	
		Location:	FIELD BLANK	
		Sample Date:	04/16/2013	
		Sample Type:	FB	
		Lab:	LL	
Analyte	Analytic Method	Units	Concentration	Final Qualifer
MCPA	8151A	µg/L	200	U
MCPP	8151A	µg/L	200	UJ
M-Dinitrobenzene	8330A	µg/L	0.6	U
Mercury	7470A	mg/L	0.0002	U
Methanol	8015C	µg/L	1000	UJ
Methoxychlor	8081B	µg/L	0.086	U
Methyl Iodide	8260B	µg/L	5	U
Methyl Tert-Butyl Ether	8260B	µg/L	5	U
Methylene Chloride	8260B	µg/L	18	
Mirex	8081B	µg/L	0.22	U
Molybdenum	6010C	mg/L	0.02	U
m-Terphenyl	8015B	mg/L	0.0049	U
Naphthalene	8270D	µg/L	0.5	U
			0.5	U
Naphthalene	8270D SIM	µg/L	0.052	U
n-Butylbenzene	8260B	µg/L	5	U
Nickel	6010C	mg/L	0.02	U
Nitrate	300.0	mg/L	0.1	U
Nitrite-NO2	300.0	mg/L	0.1	U
Nitrobenzene	8270D	µg/L	1	U
Nitrobenzene	8330A	µg/L	0.6	U
N-Nitrosodimethylamine	8270D	µg/L	5	U
			5	U
N-Nitrosodimethylamine	8270D SIM	µg/L	0.052	U
N-Nitroso-di-n-propylamine	8270D	µg/L	1	U
N-Nitrosodiphenylamine	8270D	µg/L	1	U
n-Propylbenzene	8260B	µg/L	5	U
OCDD	1613B	pg/L	19.4	U
OCDF	1613B	pg/L	19.4	U
Orthophosphate	300.0	mg/L	0.5	U
o-Terphenyl	8015B	mg/L	0.0049	U
o-Xylene	8260B	µg/L	5	U
Pentachlorophenol	8270D	µg/L	5	U
Perchlorate	6850	µg/L	1	U
pH	9040C	pH	5.7	
Phenanthrene	8270D	µg/L	0.5	U
			0.5	U
Phenanthrene	8270D SIM	µg/L	0.052	U
Phenol	8270D	µg/L	1	U
Phosphorus	6010C	mg/L	0.2	U
Potassium	6010C	mg/L	1	U
Propylene Glycol	8015C	mg/L	10	U
p-Terphenyl	8015B	mg/L	0.0049	U
Pyrene	8270D	µg/L	0.5	U
			0.5	U
Pyrene	8270D SIM	µg/L	0.052	U
Pyridine	8270D	µg/L	5	U
RDX	8330A	µg/L	0.6	U
Selenium	6020A	mg/L	0.004	U
Silver	6020A	mg/L	0.001	U
Silvex (2,4,5-TP)	8151A	µg/L	0.049	U
Sodium	6010C	mg/L	2	U
Strontium	6020A	mg/L	0.002	U
Styrene	8260B	µg/L	5	U
Sulfate	300.0	mg/L	1	U
TCDD TEQ	1613B	pg/L	0.0354	
Technical Toxaphene	8081B	µg/L	2.6	U
tert-Butyl ethyl ether	8260B	µg/L	5	U
tert-Butylbenzene	8260B	µg/L	5	U
Tertiary amyl methyl ether	8260B	µg/L	5	U
Tertiary butyl alcohol	8260B	µg/L	50	U
Tetrachloroethene	8260B	µg/L	5	U
Tetryl	8330A	µg/L	0.6	U
Thallium	6020A	mg/L	0.001	U
Tin	6010C	mg/L	0.0029	J
Titanium	6010C	mg/L	0.02	U
Toluene	8260B	µg/L	5	U
trans-1,2-Dichloroethene	8260B	µg/L	5	U
trans-1,3-Dichloropropene	8260B	µg/L	5	U
Trichloroethene	8260B	µg/L	5	U
Trichlorofluoromethane	8260B	µg/L	5	U
Triethylene Glycol	8015C	mg/L	10	U
Vanadium	6010C	mg/L	0.01	U
Vinyl Acetate	8260B	µg/L	10	U
Vinyl Chloride	8260B	µg/L	5	U
Zinc	6010C	mg/L	0.04	U
Zirconium	6010C	mg/L	0.1	U

Notes:
ug/L - microgram per liter
mg/L - milligram per liter
ng/L - nanogram per liter
pg/L - picogram per liter
U - Compound not detected above the reporting limit

Table C6 - Subarea 7 Trip Blanks

		Sample Name:	TB-041013		TB-041213		TB-041513		TB-041613		TB-041713		TB-042213		TB-042313		TB-042413		TB-042613		TB-060313		TB-060413		TB2-100213	
		Location:	7_DG_TB		7_DG_TB		7_DG_TB		7_DG_TB		7_DG_TB		7_DG_TB		7_DG_TB		7_DG_TB		7_DG_TB		7_DG_TB		7_DG_TB		7_DG_TB	
		Sample Date:	04/10/2013		04/12/2013		04/15/2013		04/16/2013		04/17/2013		04/22/2013		04/23/2013		04/24/2013		04/26/2013		06/03/2013		06/04/2013		10/02/2013	
		Sample Type:	TB		TB		TB		TB		TB		TB		TB		TB		TB		TB		TB		TB	
		Lab:	LL		LL		LL		LL		LL		LL		LL		LL		LL		LL		LL		LL	
Analyte	Analytic Method	Units	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer
Gasoline Range Organics (C5-C12)	8015M	µg/L	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U	50	U

Notes:
ug/L - microgram per liter
U - Compound not detected above the reporting limit

Table C7 - Northern Buffer Zone - Trip Blanks

		Sample Name:	TB-120313		TB-120413		TB-120613		TB-120913		TB2-121613	
		Location:	NBZ_DG_TB		NBZ_DG_TB		NBZ_DG_TB		NBZ_DG_TB		NBZ_DG_TB	
		Sample Date:	12/03/2013		12/04/2013		12/06/2013		12/09/2013		12/16/2013	
		Sample Type:	TB		TB		TB		TB		TB	
		Lab:	LL		LL		LL		LL		LL	
Analyte	Analytic Method	Units	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer	Concentration	Final Qualifer
Gasoline Range Organics (C5-C12)	8015M	µg/L	50	U	50	U	50	U	50	U	50	U

Notes:
ug/L - microgram per liter
U - Compound not detected above the reporting limit

Table C8 - Subarea 7 - Field Duplicates

				Location	7_DG-510		7_DG-510		RPD
				Sample Name:	SL-810-SA7-SB-0.0-0.5		SL-510-SA7-SB-0.0-0.5		
				Sample Date	04/22/2013		04/22/2013		
				Start Depth:	0		0		
				End Depth:	0.5		0.5		
				Area:	7_DG		7_DG		
				Matrix:	SO		SO		
				Sample Type:	FD		N		
MAG:	Chemical Name:	CAS No.:	Lab Method:	Result Unit					
Dioxins	1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	35822-46-9	1613B	ng/kg	22.3		23.2		3.96
Dioxins	1,2,3,4,6,7,8-HPCDF	67562-39-4	1613B	ng/kg	4.4	J	4.7	J	6.59
Dioxins	1,2,3,4,7,8,9-HPCDF	55673-89-7	1613B	ng/kg	0.396	J	0.416	J	4.93
Dioxins	1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	39227-28-6	1613B	ng/kg	0.357	J	0.317	J	11.87
Dioxins	1,2,3,4,7,8-HXCDF	70648-26-9	1613B	ng/kg	0.435	J	1.97	J	127.65
Dioxins	1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	57653-85-7	1613B	ng/kg	0.79	J	0.925	J	15.74
Dioxins	1,2,3,6,7,8-HXCDF	57117-44-9	1613B	ng/kg	0.267	J	0.497	J	60.21
Dioxins	1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	19408-74-3	1613B	ng/kg	0.622	J	0.703	J	12.23
Dioxins	1,2,3,7,8,9-HXCDF	72918-21-9	1613B	ng/kg	0.111	J	0.175	J	44.76
Dioxins	1,2,3,7,8-Pentachlorodibenzofuran	57117-41-6	1613B	ng/kg	0.591	J	0.591	J	0.00
Dioxins	1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	40321-76-4	1613B	ng/kg	0.135	J	0.203	J	40.24
Dioxins	2,3,4,6,7,8-HXCDF	60851-34-5	1613B	ng/kg	0.315	J	0.478	J	41.11
Dioxins	2,3,4,7,8-PECDF	57117-31-4	1613B	ng/kg	0.375	J	0.824	J	74.90
Dioxins	2,3,7,8-TCDD	1746-01-6	1613B	ng/kg	0.994	U	0.999	U	--
Dioxins	2,3,7,8-Tetrachlorodibenzofuran	51207-31-9	1613B	ng/kg	0.249	J	0.258	J	3.55
Dioxins	OCDD	3268-87-9	1613B	ng/kg	171		177	J	3.45
Dioxins	OCDF	39001-02-0	1613B	ng/kg	11.8		10.9		7.93
Dioxins	TCDD TEQ	TCDD TEQ	1613B	ng/kg	0.71		1.32		60.10
Formaldehyde	Formaldehyde	50-00-0	8315A	µg/kg					--
Hexavalent Chormium	Chromium (Hexavalent Compounds)	18540-29-9	7199	mg/kg					--
Mercury	Mercury	7439-97-6	7471B	mg/kg	0.0219		0.0167		26.94
Metals	Aluminum	7429-90-5	6010C	mg/kg	14600		13600		7.09
Metals	Antimony	7440-36-0	6010C	mg/kg	0.94	J	4.11	UJ	200.00
Metals	Arsenic	7440-38-2	6010C	mg/kg	5.19		5.14		0.97
Metals	Barium	7440-39-3	6010C	mg/kg	74.3		73.5		1.08
Metals	Beryllium	7440-41-7	6010C	mg/kg	0.589	J	0.542	J	8.31
Metals	Boron	7440-42-8	6010C	mg/kg	10.2	UJ	10.3	UJ	--
Metals	Cadmium	7440-43-9	6010C	mg/kg	0.0868	J	0.12	J	32.11
Metals	Calcium	7440-70-2	6010C	mg/kg	2670		2950		9.96
Metals	Chromium	7440-47-3	6010C	mg/kg	19.7		20.4		3.49
Metals	Cobalt	7440-48-4	6010C	mg/kg	5.14		4.8		6.84
Metals	Copper	7440-50-8	6010C	mg/kg	13.2		12.8		3.08
Metals	Iron	7439-89-6	6010C	mg/kg	24100		22600		6.42
Metals	Lead	7439-92-1	6010C	mg/kg	81.7	J	29.2	J	94.68
Metals	Lithium	7439-93-2	6010C	mg/kg	26.9		26.6		1.12
Metals	Magnesium	7439-95-4	6010C	mg/kg	5060		5300		4.63
Metals	Manganese	7439-96-5	6010C	mg/kg	299		276		8.00
Metals	Molybdenum	7439-98-7	6010C	mg/kg	2.04	U	2.06	U	--
Metals	Nickel	7440-02-0	6010C	mg/kg	10.5		10.9		3.74
Metals	Phosphorus	7723-14-0	6010C	mg/kg	486		436		10.85
Metals	Potassium	9/7/7440	6010C	mg/kg	4010	J	3480	J	14.15
Metals	Selenium	7782-49-2	6020A	mg/kg	0.144	J	0.411	UJ	200.00
Metals	Silver	7440-22-4	6020A	mg/kg	0.0404	J	0.0279	J	36.60
Metals	Sodium	7440-23-5	6010C	mg/kg	102	U	103	U	--
Metals	Strontium	7440-24-6	6020A	mg/kg	11.4	J	13.2	J	14.63
Metals	Thallium	7440-28-0	6020A	mg/kg	0.211		0.283		29.15
Metals	Tin	7440-31-5	6010C	mg/kg	10.2	U	10.3	U	--
Metals	Titanium	7440-32-6	6010C	mg/kg	1190		1170		1.69
Metals	Vanadium	7440-62-2	6010C	mg/kg	38.6		36.7		5.05
Metals	Zinc	7440-66-6	6010C	mg/kg	69.1		62.4		10.19
Metals	Zirconium	7440-67-7	6010C	mg/kg	2.72	J	2.52	J	7.63
Moisture Content	Moisture	MOIST	160.3M	%	3		3.7		20.90
PAHs	1-Methylnaphthalene	90-12-0	8270D SIM	µg/kg	1.7	U	1.7	U	--
PAHs	2-Methylnaphthalene	91-57-6	8270D SIM	µg/kg	1.7	U	1.7	U	--
PAHs	Acenaphthene	83-32-9	8270D SIM	µg/kg	1.7	U	1.7	U	--
PAHs	Acenaphthylene	208-96-8	8270D SIM	µg/kg	1.7	U	1.7	U	--
PAHs	Anthracene	120-12-7	8270D SIM	µg/kg	1.7	U	1.7	U	--
PAHs	Benzo(a)anthracene	56-55-3	8270D SIM	µg/kg	0.74	J	1.3	J	54.90
PAHs	Benzo(a)pyrene	50-32-8	8270D SIM	µg/kg	1	J	1.8	J	57.14
PAHs	Benzo(b)fluoranthene	205-99-2	8270D SIM	µg/kg	2.4	J	5	J	70.27
PAHs	Benzo(e)pyrene	192-97-2	8270D SIM	µg/kg	18	U	18	U	--
PAHs	Benzo(g,h,i)perylene	191-24-2	8270D SIM	µg/kg	0.83	J	1.4	J	51.12
PAHs	Benzo(k)fluoranthene	207-08-9	8270D SIM	µg/kg	8.5		9.4		10.06
PAHs	Bis(2-ethylhexyl)phthalate	117-81-7	8270D SIM	µg/kg	76	J	7.3	J	164.95
PAHs	Butylbenzylphthalate	85-68-7	8270D SIM	µg/kg	19	U	19	U	--
PAHs	Chrysene	218-01-9	8270D SIM	µg/kg	1.9		2.9		41.67
PAHs	Dibenzo(a,h)anthracene	53-70-3	8270D SIM	µg/kg	1.7	U	1.7	U	--
PAHs	Diethylphthalate	84-66-2	8270D SIM	µg/kg	19	U	19	U	--
PAHs	Dimethylphthalate	131-11-3	8270D SIM	µg/kg	19	U	19	U	--
PAHs	Di-n-butylphthalate	84-74-2	8270D SIM	µg/kg	19	U	19	U	--
PAHs	Di-n-octylphthalate	117-84-0	8270D SIM	µg/kg	19	U	19	U	--
PAHs	Fluoranthene	206-44-0	8270D SIM	µg/kg	2.1	J	4.1	J	64.52
PAHs	Fluorene	86-73-7	8270D SIM	µg/kg	0.69	J	1.7	UJ	200.00
PAHs	Indeno(1,2,3-cd)pyrene	193-39-5	8270D SIM	µg/kg	0.69	J	2	J	97.40
PAHs	Naphthalene	91-20-3	8270D SIM	µg/kg	1.2	J	0.93	J	25.35
PAHs	N-Nitrosodimethylamine	62-75-9	8270D SIM	µg/kg	1.7	U	1.7	U	--
PAHs	Phenanthrene	85-01-8	8270D SIM	µg/kg	1.3	J	1.9		37.50
PAHs	Pyrene	129-00-0	8270D SIM	µg/kg	1.8	J	3.4	J	61.54
PCBPCTs	Aroclor 1016	12674-11-2	8082A	µg/kg	17	U	18	U	--
PCBPCTs	Aroclor 1221	11104-28-2	8082A	µg/kg	17	U	18	U	--
PCBPCTs	Aroclor 1232	11141-16-5	8082A	µg/kg	17	U	18	U	--
PCBPCTs	Aroclor 1242	53469-21-9	8082A	µg/kg	17	U	18	U	--
PCBPCTs	Aroclor 1248	12672-29-6	8082A	µg/kg	17	U	18	U	--
PCBPCTs	Aroclor 1254	11097-69-1	8082A	µg/kg	25	J	14	J	56.41
PCBPCTs	Aroclor 1260	11096-82-5	8082A	µg/kg	17	U	18	U	--
PCBPCTs	Aroclor 1262	37324-23-5	8082A	µg/kg	17	U	18	U	--
PCBPCTs	Aroclor 1268	11100-14-4	8082A	µg/kg	17	U	18	U	--
PCBPCTs	Aroclor 5432	63496-31-1	8082A	µg/kg	34	U	34	U	--
PCBPCTs	Aroclor 5442	12642-23-8	8082A	µg/kg	34	U	34	U	--
PCBPCTs	Aroclor 5460	11126-42-4	8082A	µg/kg	32	J	17	J	61.22
Pesticides	4,4'-DDD	72-54-8	8081B	µg/kg	1.8	U	1.8	U	--
Pesticides	4,4'-DDE	72-55-9	8081B	µg/kg	1.4	J	0.67	J	70.53
Pesticides	4,4'-DDT	50-29-3	8081B	µg/kg	1.8	UJ	0.72	J	200.00

Table C8 - Subarea 7 - Field Duplicates

				Location	7_DG-510		7_DG-510		RPD
				Sample Name:	SL-810-SA7-SB-0.0-0.5		SL-510-SA7-SB-0.0-0.5		
				Sample Date	04/22/2013		04/22/2013		
				Start Depth:	0		0		
				End Depth:	0.5		0.5		
				Area:	7_DG		7_DG		
				Matrix:	SO		SO		
				Sample Type:	FD		N		
Pesticides	Aldrin	309-00-2	8081B	µg/kg	0.86	U	0.86	U	--
Pesticides	Alpha-Bhc	319-84-6	8081B	µg/kg	0.86	U	0.86	U	--
Pesticides	Beta-Bhc	319-85-7	8081B	µg/kg	2	U	2	U	--
Pesticides	Chlordane	57-74-9	8081B	µg/kg	18	U	18	U	--
Pesticides	Delta-Bhc	319-86-8	8081B	µg/kg	0.86	U	0.86	U	--
Pesticides	Dieldrin	60-57-1	8081B	µg/kg	1.8	U	1.8	U	--
Pesticides	Endosulfan I	959-98-8	8081B	µg/kg	0.86	U	0.86	U	--
Pesticides	Endosulfan II	33213-65-9	8081B	µg/kg	1.8	U	1.8	U	--
Pesticides	Endosulfan Sulfate	1031-07-8	8081B	µg/kg	1.8	U	1.8	U	--
Pesticides	Endrin	72-20-8	8081B	µg/kg	1.8	U	1.8	U	--
Pesticides	Endrin Aldehyde	7421-93-4	8081B	µg/kg	1.8	U	1.8	U	--
Pesticides	Endrin Ketone	53494-70-5	8081B	µg/kg	1.9	U	1.9	U	--
Pesticides	Gamma-Bhc (Lindane)	58-89-9	8081B	µg/kg	0.86	U	0.86	U	--
Pesticides	Heptachlor	76-44-8	8081B	µg/kg	0.86	U	0.86	U	--
Pesticides	Heptachlor Epoxide	1024-57-3	8081B	µg/kg	0.86	U	0.86	U	--
Pesticides	Methoxychlor	72-43-5	8081B	µg/kg	6.9	U	7	U	--
Pesticides	Mirex	2385-85-5	8081B	µg/kg	1.8	U	1.8	U	--
Pesticides	Technical Toxaphene	8001-35-2	8081B	µg/kg	34	U	34	U	--
pH	pH	pH	9045M	pH	6.68		6.77		1.34
TPH-EFH	EFH (C8-C11)	PHCC8C11	8015M	mg/kg	5.2	U	5.2	U	--
TPH-EFH	EFH (C12-C14)	PHCC12C14	8015M	mg/kg	5.2	U	5.2	U	--
TPH-EFH	EFH (C15-C20)	PHCC15C20	8015M	mg/kg	5.2	U	5.2	U	--
TPH-EFH	EFH (C21-C30)	PHCC21C30	8015M	mg/kg	13	J	6.9	J	61.31
TPH-EFH	EFH (C30-C40)	PHCC30C40	8015M	mg/kg	39	J	21	J	60.00
TPH-GRO	Gasoline Range Organics (C5-C12)	GROC5C12	8015M	mg/kg					--

Notes:
ug/kg - microgram per kilogram
mg/kg - milligram per kilogram
ng/g - nanogram per kilogram
FD - field duplicate sample
N - normal sample
RPD - relative percent difference
SO - soil
-- - RPD not calculated when both field duplicate and normal samples were nondetect or only one sample result is reported
200* - When one result is nondetect a 200% RPD is given and sample results are qualified as estimated "J" or "UJ" in the field duplicate samples only

Limit - 50% - If RPD is above 50% detected field duplicate results only were estimated "J"

Table C8 - Subarea 7 - Field Duplicates

				Location	7_DG-519		7_DG-519		RPD
				Sample Name:	SL-819-SA7-SB-0.0-0.5		SL-519-SA7-SB-0.0-0.5		
				Sample Date	04/25/2013		04/25/2013		
				Start Depth:	0		0		
				End Depth:	0.5		0.5		
				Area:	7_DG		7_DG		
				Matrix:	SO		SO		
				Sample Type:	FD		N		
MAG:	Chemical Name:	CAS No.:	Lab Method:	Result Unit					
Dioxins	1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	35822-46-9	1613B	ng/kg	17.1		25.2		38.30
Dioxins	1,2,3,4,6,7,8-HPCDF	67562-39-4	1613B	ng/kg	3.38	J	2.91	J	14.94
Dioxins	1,2,3,4,7,8,9-HPCDF	55673-89-7	1613B	ng/kg	0.298	J	0.344	J	14.33
Dioxins	1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	39227-28-6	1613B	ng/kg	0.317	J	0.276	J	13.83
Dioxins	1,2,3,4,7,8-HXCDF	70648-26-9	1613B	ng/kg	0.435	J	0.486	J	11.07
Dioxins	1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	57653-85-7	1613B	ng/kg	0.728	J	1.02	J	33.41
Dioxins	1,2,3,6,7,8-HXCDF	57117-44-9	1613B	ng/kg	0.307	J	0.299	J	2.64
Dioxins	1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	19408-74-3	1613B	ng/kg	0.654	J	0.691	J	5.50
Dioxins	1,2,3,7,8,9-HXCDF	72918-21-9	1613B	ng/kg	0.108	J	0.114	J	5.41
Dioxins	1,2,3,7,8-Pentachlorodibenzofuran	57117-41-6	1613B	ng/kg	0.577	J	0.711	J	20.81
Dioxins	1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	40321-76-4	1613B	ng/kg	5.08	U	5.1	U	--
Dioxins	2,3,4,6,7,8-HXCDF	60851-34-5	1613B	ng/kg	0.284	J	0.303	J	6.47
Dioxins	2,3,4,7,8-PECDF	57117-31-4	1613B	ng/kg	0.484	J	0.495	J	2.25
Dioxins	2,3,7,8-TCDD	1746-01-6	1613B	ng/kg	0.0291	J	0.0651	J	76.43
Dioxins	2,3,7,8-Tetrachlorodibenzofuran	51207-31-9	1613B	ng/kg	0.184	J	0.365	J	65.94
Dioxins	OCDD	3268-87-9	1613B	ng/kg	174		270	J	43.24
Dioxins	OCDF	39001-02-0	1613B	ng/kg	13.7	J	7.75	J	55.48
Dioxins	TCDD TEQ	TCDD TEQ	1613B	ng/kg	0.503		0.639		23.82
Formaldehyde	Formaldehyde	50-00-0	8315A	µg/kg					--
Hexavalent Chormium	Chromium (Hexavalent Compounds)	18540-29-9	7199	mg/kg					--
Mercury	Mercury	7439-97-6	7471B	mg/kg	0.0492		0.0581		16.59
Metals	Aluminum	7429-90-5	6010C	mg/kg	12000		11700		2.53
Metals	Antimony	7440-36-0	6010C	mg/kg	0.542	J	4.63	J	158.08
Metals	Arsenic	7440-38-2	6010C	mg/kg	4.09	J	4.45		8.43
Metals	Barium	7440-39-3	6010C	mg/kg	107		104		2.84
Metals	Beryllium	7440-41-7	6010C	mg/kg	0.473	J	0.463	J	2.14
Metals	Boron	7440-42-8	6010C	mg/kg	10.3	U	10.1	U	--
Metals	Cadmium	7440-43-9	6010C	mg/kg	0.38	J	1.19	J	103.18
Metals	Calcium	7440-70-2	6010C	mg/kg	6150	J	7940	J	25.41
Metals	Chromium	7440-47-3	6010C	mg/kg	17		15.4		9.88
Metals	Cobalt	7440-48-4	6010C	mg/kg	4.4	J	7.61	J	53.46
Metals	Copper	7440-50-8	6010C	mg/kg	12		12.3		2.47
Metals	Iron	7439-89-6	6010C	mg/kg	18500		17900		3.30
Metals	Lead	7439-92-1	6010C	mg/kg	15.1	J	23.8	J	44.73
Metals	Lithium	7439-93-2	6010C	mg/kg	19.6		20.2		3.02
Metals	Magnesium	7439-95-4	6010C	mg/kg	4550		4490		1.33
Metals	Manganese	7439-96-5	6010C	mg/kg	328		355		7.91
Metals	Molybdenum	7439-98-7	6010C	mg/kg	2.07	UJ	2.79	J	200.00
Metals	Nickel	7440-02-0	6010C	mg/kg	10.1		8.9	J	12.63
Metals	Phosphorus	7723-14-0	6010C	mg/kg	515	J	679	J	27.47
Metals	Potassium	9/7/7440	6010C	mg/kg	3320	J	3090	J	7.18
Metals	Selenium	7782-49-2	6020A	mg/kg	0.139	J	0.189	J	30.49
Metals	Silver	7440-22-4	6020A	mg/kg	0.0326	J	0.0351	J	7.39
Metals	Sodium	7440-23-5	6010C	mg/kg	103	U	101	U	--
Metals	Strontium	7440-24-6	6020A	mg/kg	36.6		37.5		2.43
Metals	Thallium	7440-28-0	6020A	mg/kg	0.259		0.23		11.86
Metals	Tin	7440-31-5	6010C	mg/kg	10.3	UJ	10.9	J	200.00
Metals	Titanium	7440-32-6	6010C	mg/kg	1040		977		6.25
Metals	Vanadium	7440-62-2	6010C	mg/kg	30.2		29.3		3.03
Metals	Zinc	7440-66-6	6010C	mg/kg	69.5		71		2.14
Metals	Zirconium	7440-67-7	6010C	mg/kg	2.54	J	2.49	J	1.99
Moisture Content	Moisture	MOIST	160.3M	%	4.3		2.4		56.72
PAHs	1-Methylnaphthalene	90-12-0	8270D SIM	µg/kg	1.1	J	0.88	J	22.22
PAHs	2-Methylnaphthalene	91-57-6	8270D SIM	µg/kg	1.8		1.5	J	18.18
PAHs	Acenaphthene	83-32-9	8270D SIM	µg/kg	1.7	U	1.7	U	--
PAHs	Acenaphthylene	208-96-8	8270D SIM	µg/kg	1.7	UJ	0.39	J	200.00
PAHs	Anthracene	120-12-7	8270D SIM	µg/kg	0.59	J	0.52	J	12.61
PAHs	Benzo(a)anthracene	56-55-3	8270D SIM	µg/kg	2.8		4.5	J	46.58
PAHs	Benzo(a)pyrene	50-32-8	8270D SIM	µg/kg	2.7	J	5	J	59.74
PAHs	Benzo(b)fluoranthene	205-99-2	8270D SIM	µg/kg	5.9	J	13	J	75.13
PAHs	Benzo(e)pyrene	192-97-2	8270D SIM	µg/kg	18	UJ	5.5	J	200.00
PAHs	Benzo(g,h,i)perylene	191-24-2	8270D SIM	µg/kg	1.4	J	2.8	J	66.67
PAHs	Benzo(k)fluoranthene	207-08-9	8270D SIM	µg/kg	2.4	J	9.1	J	116.52
PAHs	Bis(2-ethylhexyl)phthalate	117-81-7	8270D SIM	µg/kg	14	J	21		40.00
PAHs	Butylbenzylphthalate	85-68-7	8270D SIM	µg/kg	19	U	18	U	--
PAHs	Chrysene	218-01-9	8270D SIM	µg/kg	5	J	9	J	57.14
PAHs	Dibenzo(a,h)anthracene	53-70-3	8270D SIM	µg/kg	1.7	UJ	1	J	200.00
PAHs	Diethylphthalate	84-66-2	8270D SIM	µg/kg	19	U	18	U	--
PAHs	Dimethylphthalate	131-11-3	8270D SIM	µg/kg	19	U	18	U	--
PAHs	Di-n-butylphthalate	84-74-2	8270D SIM	µg/kg	19	U	18	U	--
PAHs	Di-n-octylphthalate	117-84-0	8270D SIM	µg/kg	19	U	18	U	--
PAHs	Fluoranthene	206-44-0	8270D SIM	µg/kg	5.8		9.1	J	44.30
PAHs	Fluorene	86-73-7	8270D SIM	µg/kg	3.5		3.9		10.81
PAHs	Indeno(1,2,3-cd)pyrene	193-39-5	8270D SIM	µg/kg	1.4	J	2.5	J	56.41
PAHs	Naphthalene	91-20-3	8270D SIM	µg/kg	2.1		1.5	J	33.33
PAHs	N-Nitrosodimethylamine	62-75-9	8270D SIM	µg/kg	1.7	U	1.7	U	--
PAHs	Phenanthrene	85-01-8	8270D SIM	µg/kg	3.3		3.1		6.25
PAHs	Pyrene	129-00-0	8270D SIM	µg/kg	5		7.9	J	44.96
PCBPCTs	Aroclor 1016	12674-11-2	8082A	µg/kg	17	U	17	U	--
PCBPCTs	Aroclor 1221	11104-28-2	8082A	µg/kg	17	U	17	U	--
PCBPCTs	Aroclor 1232	11141-16-5	8082A	µg/kg	17	U	17	U	--
PCBPCTs	Aroclor 1242	53469-21-9	8082A	µg/kg	17	U	17	U	--
PCBPCTs	Aroclor 1248	12672-29-6	8082A	µg/kg	17	U	17	U	--
PCBPCTs	Aroclor 1254	11097-69-1	8082A	µg/kg	6.1	J	7	J	13.74
PCBPCTs	Aroclor 1260	11096-82-5	8082A	µg/kg	17	U	17	U	--
PCBPCTs	Aroclor 1262	37324-23-5	8082A	µg/kg	17	U	17	U	--
PCBPCTs	Aroclor 1268	11100-14-4	8082A	µg/kg	17	U	17	U	--
PCBPCTs	Aroclor 5432	63496-31-1	8082A	µg/kg	34	UJ	33	UJ	--
PCBPCTs	Aroclor 5442	12642-23-8	8082A	µg/kg	34	UJ	33	UJ	--
PCBPCTs	Aroclor 5460	11126-42-4	8082A	µg/kg	34	UJ	33	UJ	--
Pesticides	4,4'-DDD	72-54-8	8081B	µg/kg					--
Pesticides	4,4'-DDE	72-55-9	8081B	µg/kg					--
Pesticides	4,4'-DDT	50-29-3	8081B	µg/kg					--

Table C8 - Subarea 7 - Field Duplicates

				Location	7_DG-519		7_DG-519		RPD
				Sample Name:	SL-819-SA7-SB-0.0-0.5		SL-519-SA7-SB-0.0-0.5		
				Sample Date	04/25/2013		04/25/2013		
				Start Depth:	0		0		
				End Depth:	0.5		0.5		
				Area:	7_DG		7_DG		
				Matrix:	SO		SO		
				Sample Type:	FD		N		
Pesticides	Aldrin	309-00-2	8081B	µg/kg					--
Pesticides	Alpha-Bhc	319-84-6	8081B	µg/kg					--
Pesticides	Beta-Bhc	319-85-7	8081B	µg/kg					--
Pesticides	Chlordane	57-74-9	8081B	µg/kg					--
Pesticides	Delta-Bhc	319-86-8	8081B	µg/kg					--
Pesticides	Dieldrin	60-57-1	8081B	µg/kg					--
Pesticides	Endosulfan I	959-98-8	8081B	µg/kg					--
Pesticides	Endosulfan II	33213-65-9	8081B	µg/kg					--
Pesticides	Endosulfan Sulfate	1031-07-8	8081B	µg/kg					--
Pesticides	Endrin	72-20-8	8081B	µg/kg					--
Pesticides	Endrin Aldehyde	7421-93-4	8081B	µg/kg					--
Pesticides	Endrin Ketone	53494-70-5	8081B	µg/kg					--
Pesticides	Gamma-Bhc (Lindane)	58-89-9	8081B	µg/kg					--
Pesticides	Heptachlor	76-44-8	8081B	µg/kg					--
Pesticides	Heptachlor Epoxide	1024-57-3	8081B	µg/kg					--
Pesticides	Methoxychlor	72-43-5	8081B	µg/kg					--
Pesticides	Mirex	2385-85-5	8081B	µg/kg					--
Pesticides	Technical Toxaphene	8001-35-2	8081B	µg/kg					--
pH	pH	pH	9045M	pH	7.59		7.32		3.62
TPH-EFH	EFH (C8-C11)	PHCC8C11	8015M	mg/kg	5.2	UJ	3	J	200.00
TPH-EFH	EFH (C12-C14)	PHCC12C14	8015M	mg/kg	5.2	UJ	2.5	J	200.00
TPH-EFH	EFH (C15-C20)	PHCC15C20	8015M	mg/kg	14		14		0.00
TPH-EFH	EFH (C21-C30)	PHCC21C30	8015M	mg/kg	56		41		30.93
TPH-EFH	EFH (C30-C40)	PHCC30C40	8015M	mg/kg	79	J	95	J	18.39
TPH-GRO	Gasoline Range Organics (C5-C12)	GROC5C12	8015M	mg/kg					--

Notes:
ug/kg - microgram per kilogram
mg/kg - milligram per kilogram
ng/g - nanogram per kilogram
FD - field duplicate sample
N - normal sample
RPD - relative percent difference
SO - soil
-- - RPD not calculated when both field duplicate and normal samples were nondetect or only one sample result is reported
200* - When one result is nondetect a 200% RPD is given and sample results are qualified as estimated "J" or "UJ" in the field duplicate samples only

Limit - 50% - If RPD is above 50% detected field duplicate results only were estimated "J"

Table C8 - Subarea 7 - Field Duplicates

				Location	7_DG-536		7_DG-536		RPD
				Sample Name:	SL-836-SA7-SB-3.0-4.0		SL-536-SA7-SB-3.0-4.0		
				Sample Date	04/12/2013		04/12/2013		
				Start Depth:	3		3		
				End Depth:	4		4		
				Area:	7_DG		7_DG		
				Matrix:	SO		SO		
				Sample Type:	FD		N		
MAG:	Chemical Name:	CAS No.:	Lab Method:	Result Unit					
Dioxins	1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	35822-46-9	1613B	ng/kg	38.9	J	18.2	J	72.50
Dioxins	1,2,3,4,6,7,8-HPCDF	67562-39-4	1613B	ng/kg	5.29	J	2.14	J	84.79
Dioxins	1,2,3,4,7,8,9-HPCDF	55673-89-7	1613B	ng/kg	0.529	J	5.02	UJ	200.00
Dioxins	1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	39227-28-6	1613B	ng/kg	0.724	J	0.287	J	86.45
Dioxins	1,2,3,4,7,8-HXCDF	70648-26-9	1613B	ng/kg	0.302	J	5.02	UJ	200.00
Dioxins	1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	57653-85-7	1613B	ng/kg	1.87	J	0.778	J	82.48
Dioxins	1,2,3,6,7,8-HXCDF	57117-44-9	1613B	ng/kg	0.396	J	5.02	UJ	200.00
Dioxins	1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	19408-74-3	1613B	ng/kg	1.41	J	0.575	J	84.13
Dioxins	1,2,3,7,8,9-HXCDF	72918-21-9	1613B	ng/kg	5.13	UJ	5.02	UJ	--
Dioxins	1,2,3,7,8-Pentachlorodibenzofuran	57117-41-6	1613B	ng/kg	5.13	UJ	5.02	UJ	--
Dioxins	1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	40321-76-4	1613B	ng/kg	0.38	J	0.238	J	45.95
Dioxins	2,3,4,6,7,8-HXCDF	60851-34-5	1613B	ng/kg	0.439	J	0.189	J	79.62
Dioxins	2,3,4,7,8-PECDF	57117-31-4	1613B	ng/kg	0.231	J	5.02	UJ	200.00
Dioxins	2,3,7,8-TCDD	1746-01-6	1613B	ng/kg	1.03	UJ	1	UJ	--
Dioxins	2,3,7,8-Tetrachlorodibenzofuran	51207-31-9	1613B	ng/kg	0.0308	J	1	UJ	200.00
Dioxins	OCDD	3268-87-9	1613B	ng/kg	358	J	150	J	81.89
Dioxins	OCDF	39001-02-0	1613B	ng/kg	9.39	J	3.87	J	83.26
Dioxins	TCDD TEQ	TCDD TEQ	1613B	ng/kg	1.54		0.441		110.95
Formaldehyde	Formaldehyde	50-00-0	8315A	µg/kg					--
Hexavalent Chormium	Chromium (Hexavalent Compounds)	18540-29-9	7199	mg/kg					--
Mercury	Mercury	7439-97-6	7471B	mg/kg	0.02	U	0.0202	U	--
Metals	Aluminum	7429-90-5	6010C	mg/kg	10800		10800		0.00
Metals	Antimony	7440-36-0	6010C	mg/kg	1.47	J	1.58	J	7.21
Metals	Arsenic	7440-38-2	6010C	mg/kg	2.38	J	2.06	J	14.41
Metals	Barium	7440-39-3	6010C	mg/kg	66.7		72.1		7.78
Metals	Beryllium	7440-41-7	6010C	mg/kg	0.501	J	0.482	J	3.87
Metals	Boron	7440-42-8	6010C	mg/kg	2.9	J	3.2	J	9.84
Metals	Cadmium	7440-43-9	6010C	mg/kg	0.453	J	0.42	J	7.56
Metals	Calcium	7440-70-2	6010C	mg/kg	2540		3140		21.13
Metals	Chromium	7440-47-3	6010C	mg/kg	14		18.5		27.69
Metals	Cobalt	7440-48-4	6010C	mg/kg	4.93		5.11		3.59
Metals	Copper	7440-50-8	6010C	mg/kg	4.57		5.13		11.55
Metals	Iron	7439-89-6	6010C	mg/kg	19600		19000		3.11
Metals	Lead	7439-92-1	6010C	mg/kg	5.13		5.13		0.00
Metals	Lithium	7439-93-2	6010C	mg/kg	23.8		23.5		1.27
Metals	Magnesium	7439-95-4	6010C	mg/kg	3870		4080		5.28
Metals	Manganese	7439-96-5	6010C	mg/kg	276		283		2.50
Metals	Molybdenum	7439-98-7	6010C	mg/kg	1.98	UJ	1.97	UJ	--
Metals	Nickel	7440-02-0	6010C	mg/kg	7.16		8.67		19.08
Metals	Phosphorus	7723-14-0	6010C	mg/kg	344	J	367	J	6.47
Metals	Potassium	9/7/7440	6010C	mg/kg	2710	J	2760	J	1.83
Metals	Selenium	7782-49-2	6020A	mg/kg	0.396	U	0.395	U	--
Metals	Silver	7440-22-4	6020A	mg/kg	0.198	UJ	0.0307	J	200.00
Metals	Sodium	7440-23-5	6010C	mg/kg	59.4	J	61.3	J	3.15
Metals	Strontium	7440-24-6	6020A	mg/kg	10.9		12		9.61
Metals	Thallium	7440-28-0	6020A	mg/kg	0.248		0.232		6.67
Metals	Tin	7440-31-5	6010C	mg/kg	9.89	U	9.87	U	--
Metals	Titanium	7440-32-6	6010C	mg/kg	979		1060		7.95
Metals	Vanadium	7440-62-2	6010C	mg/kg	26.8		28.8		7.19
Metals	Zinc	7440-66-6	6010C	mg/kg	54.9		55.1		0.36
Metals	Zirconium	7440-67-7	6010C	mg/kg	4.95	UJ	1.11	J	200.00
Moisture Content	Moisture	MOIST	160.3M	%	2.8		2.6		7.41
PAHs	1-Methylnaphthalene	90-12-0	8270D SIM	µg/kg	1.7	U	1.7	U	--
PAHs	2-Methylnaphthalene	91-57-6	8270D SIM	µg/kg	1.7	U	1.7	U	--
PAHs	Acenaphthene	83-32-9	8270D SIM	µg/kg	1.7	U	1.7	U	--
PAHs	Acenaphthylene	208-96-8	8270D SIM	µg/kg	1.7	U	1.7	U	--
PAHs	Anthracene	120-12-7	8270D SIM	µg/kg	1.7	U	1.7	U	--
PAHs	Benzo(a)anthracene	56-55-3	8270D SIM	µg/kg	0.91	J	0.98	J	7.41
PAHs	Benzo(a)pyrene	50-32-8	8270D SIM	µg/kg	1.5	J	1.2	J	22.22
PAHs	Benzo(b)fluoranthene	205-99-2	8270D SIM	µg/kg	3.5		2.1		50.00
PAHs	Benzo(e)pyrene	192-97-2	8270D SIM	µg/kg	17	U	17	U	--
PAHs	Benzo(g,h,i)perylene	191-24-2	8270D SIM	µg/kg	1.7		1.1	J	42.86
PAHs	Benzo(k)fluoranthene	207-08-9	8270D SIM	µg/kg	1	J	0.89	J	11.64
PAHs	Bis(2-ethylhexyl)phthalate	117-81-7	8270D SIM	µg/kg	18	U	18	U	--
PAHs	Butylbenzylphthalate	85-68-7	8270D SIM	µg/kg	18	U	18	U	--
PAHs	Chrysene	218-01-9	8270D SIM	µg/kg	2.6		1.8		36.36
PAHs	Dibenzo(a,h)anthracene	53-70-3	8270D SIM	µg/kg	1.7	U	1.7	U	--
PAHs	Diethylphthalate	84-66-2	8270D SIM	µg/kg	18	U	18	U	--
PAHs	Dimethylphthalate	131-11-3	8270D SIM	µg/kg	18	U	18	U	--
PAHs	Di-n-butylphthalate	84-74-2	8270D SIM	µg/kg	18	U	18	U	--
PAHs	Di-n-octylphthalate	117-84-0	8270D SIM	µg/kg	18	U	18	U	--
PAHs	Fluoranthene	206-44-0	8270D SIM	µg/kg	3.5		2.4		37.29
PAHs	Fluorene	86-73-7	8270D SIM	µg/kg	1.7	U	1.7	U	--
PAHs	Indeno(1,2,3-cd)pyrene	193-39-5	8270D SIM	µg/kg	1.3	J	0.91	J	35.29
PAHs	Naphthalene	91-20-3	8270D SIM	µg/kg	1.7	U	1.7	U	--
PAHs	N-Nitrosodimethylamine	62-75-9	8270D SIM	µg/kg	1.7	U	1.7	U	--
PAHs	Phenanthrene	85-01-8	8270D SIM	µg/kg	2		1.2	J	50.00
PAHs	Pyrene	129-00-0	8270D SIM	µg/kg	3.8		2.6	J	37.50
PCBPCTs	Aroclor 1016	12674-11-2	8082A	µg/kg	17	U	17	U	--
PCBPCTs	Aroclor 1221	11104-28-2	8082A	µg/kg	17	U	17	U	--
PCBPCTs	Aroclor 1232	11141-16-5	8082A	µg/kg	17	U	17	U	--
PCBPCTs	Aroclor 1242	53469-21-9	8082A	µg/kg	17	U	17	U	--
PCBPCTs	Aroclor 1248	12672-29-6	8082A	µg/kg	17	U	17	U	--
PCBPCTs	Aroclor 1254	11097-69-1	8082A	µg/kg	17	U	17	U	--
PCBPCTs	Aroclor 1260	11096-82-5	8082A	µg/kg	17	U	17	U	--
PCBPCTs	Aroclor 1262	37324-23-5	8082A	µg/kg	17	U	17	U	--
PCBPCTs	Aroclor 1268	11100-14-4	8082A	µg/kg	17	U	17	U	--
PCBPCTs	Aroclor 5432	63496-31-1	8082A	µg/kg	33	U	33	U	--
PCBPCTs	Aroclor 5442	12642-23-8	8082A	µg/kg	33	U	33	U	--
PCBPCTs	Aroclor 5460	11126-42-4	8082A	µg/kg	33	U	33	U	--
Pesticides	4,4'-DDD	72-54-8	8081B	µg/kg					--
Pesticides	4,4'-DDE	72-55-9	8081B	µg/kg					--
Pesticides	4,4'-DDT	50-29-3	8081B	µg/kg					--

Table C8 - Subarea 7 - Field Duplicates

				Location	7_DG-536		7_DG-536		RPD
				Sample Name:	SL-836-SA7-SB-3.0-4.0		SL-536-SA7-SB-3.0-4.0		
				Sample Date	04/12/2013		04/12/2013		
				Start Depth:	3		3		
				End Depth:	4		4		
				Area:	7_DG		7_DG		
				Matrix:	SO		SO		
				Sample Type:	FD		N		
Pesticides	Aldrin	309-00-2	8081B	µg/kg					--
Pesticides	Alpha-Bhc	319-84-6	8081B	µg/kg					--
Pesticides	Beta-Bhc	319-85-7	8081B	µg/kg					--
Pesticides	Chlordane	57-74-9	8081B	µg/kg					--
Pesticides	Delta-Bhc	319-86-8	8081B	µg/kg					--
Pesticides	Dieldrin	60-57-1	8081B	µg/kg					--
Pesticides	Endosulfan I	959-98-8	8081B	µg/kg					--
Pesticides	Endosulfan II	33213-65-9	8081B	µg/kg					--
Pesticides	Endosulfan Sulfate	1031-07-8	8081B	µg/kg					--
Pesticides	Endrin	72-20-8	8081B	µg/kg					--
Pesticides	Endrin Aldehyde	7421-93-4	8081B	µg/kg					--
Pesticides	Endrin Ketone	53494-70-5	8081B	µg/kg					--
Pesticides	Gamma-Bhc (Lindane)	58-89-9	8081B	µg/kg					--
Pesticides	Heptachlor	76-44-8	8081B	µg/kg					--
Pesticides	Heptachlor Epoxide	1024-57-3	8081B	µg/kg					--
Pesticides	Methoxychlor	72-43-5	8081B	µg/kg					--
Pesticides	Mirex	2385-85-5	8081B	µg/kg					--
Pesticides	Technical Toxaphene	8001-35-2	8081B	µg/kg					--
pH	pH	pH	9045M	pH	7.92		7.71		2.69
TPH-EFH	EFH (C8-C11)	PHCC8C11	8015M	mg/kg	5.1	U	5.1	U	--
TPH-EFH	EFH (C12-C14)	PHCC12C14	8015M	mg/kg	5.1	U	5.1	U	--
TPH-EFH	EFH (C15-C20)	PHCC15C20	8015M	mg/kg	5.1	U	5.1	U	--
TPH-EFH	EFH (C21-C30)	PHCC21C30	8015M	mg/kg	5.1	UJ	6.7	J	200.00
TPH-EFH	EFH (C30-C40)	PHCC30C40	8015M	mg/kg	10	UJ	14	J	200.00
TPH-GRO	Gasoline Range Organics (C5-C12)	GROC5C12	8015M	mg/kg	1	U	1	U	--

Notes:
ug/kg - microgram per kilogram
mg/kg - milligram per kilogram
ng/g - nanogram per kilogram
FD - field duplicate sample
N - normal sample
RPD - relative percent difference
SO - soil
-- - RPD not calculated when both field duplicate and normal samples were nondetect or only one sample result is reported
200* - When one result is nondetect a 200% RPD is given and sample results are qualified as estimated "J" or "UJ" in the field duplicate samples only

Limit - 50% - If RPD is above 50% detected field duplicate results only were estimated "J"

Table C8 - Subarea 7 - Field Duplicates

				Location	7_DG-540		7_DG-540		RPD
				Sample Name:	SL-840-SA7-SB-0.0-0.5		SL-540-SA7-SB-0.0-0.5		
				Sample Date	04/09/2013		04/09/2013		
				Start Depth:	0		0		
				End Depth:	0.5		0.5		
				Area:	7_DG		7_DG		
				Matrix:	SO		SO		
				Sample Type:	FD		N		
MAG:	Chemical Name:	CAS No.:	Lab Method:	Result Unit					
Dioxins	1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	35822-46-9	1613B	ng/kg	12.7		8.49		39.74
Dioxins	1,2,3,4,6,7,8-HPCDF	67562-39-4	1613B	ng/kg	2.35	J	1.52	J	42.89
Dioxins	1,2,3,4,7,8,9-HPCDF	55673-89-7	1613B	ng/kg	0.239	J	5.12	U	200.00
Dioxins	1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	39227-28-6	1613B	ng/kg	0.197	J	0.15	J	27.09
Dioxins	1,2,3,4,7,8-HXCDF	70648-26-9	1613B	ng/kg	0.196	J	0.15	J	26.59
Dioxins	1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	57653-85-7	1613B	ng/kg	0.661	J	0.361	J	58.71
Dioxins	1,2,3,6,7,8-HXCDF	57117-44-9	1613B	ng/kg	4.9	U	5.12	U	--
Dioxins	1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	19408-74-3	1613B	ng/kg	0.443	J	0.339	J	26.60
Dioxins	1,2,3,7,8,9-HXCDF	72918-21-9	1613B	ng/kg	0.204	J	0.0774	J	89.98
Dioxins	1,2,3,7,8-Pentachlorodibenzofuran	57117-41-6	1613B	ng/kg	4.9	U	5.12	U	--
Dioxins	1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	40321-76-4	1613B	ng/kg	4.9	U	5.12	U	--
Dioxins	2,3,4,6,7,8-HXCDF	60851-34-5	1613B	ng/kg	0.187	J	5.12	U	200.00
Dioxins	2,3,4,7,8-PECDF	57117-31-4	1613B	ng/kg	4.9	U	5.12	U	--
Dioxins	2,3,7,8-TCDD	1746-01-6	1613B	ng/kg	0.98	U	1.02	U	--
Dioxins	2,3,7,8-Tetrachlorodibenzofuran	51207-31-9	1613B	ng/kg	0.98	U	1.02	U	--
Dioxins	OCDD	3268-87-9	1613B	ng/kg	161	J	86.5	J	60.20
Dioxins	OCDF	39001-02-0	1613B	ng/kg	4.4	J	3.16	J	32.80
Dioxins	TCDD TEQ	TCDD TEQ	1613B	ng/kg	0.602	J	0.193	J	102.89
Formaldehyde	Formaldehyde	50-00-0	8315A	µg/kg	2100	U	2100	U	--
Hexavalent Chormium	Chromium (Hexavalent Compounds)	18540-29-9	7199	mg/kg	0.26	J	0.37	J	34.92
Mercury	Mercury	7439-97-6	7471B	mg/kg	0.02	U	0.0201	U	--
Metals	Aluminum	7429-90-5	6010C	mg/kg	14800		13300		10.68
Metals	Antimony	7440-36-0	6010C	mg/kg	3.99	UJ	4.1	UJ	--
Metals	Arsenic	7440-38-2	6010C	mg/kg	4.74		4.19		12.32
Metals	Barium	7440-39-3	6010C	mg/kg	73.5		72.7		1.09
Metals	Beryllium	7440-41-7	6010C	mg/kg	0.998	U	0.556	J	200.00
Metals	Boron	7440-42-8	6010C	mg/kg	9.98	U	10.2	U	--
Metals	Cadmium	7440-43-9	6010C	mg/kg	0.998	U	0.0727	J	200.00
Metals	Calcium	7440-70-2	6010C	mg/kg	2670	J	3100	J	14.90
Metals	Chromium	7440-47-3	6010C	mg/kg	15.4		15.2		1.31
Metals	Cobalt	7440-48-4	6010C	mg/kg	4		4.28		6.76
Metals	Copper	7440-50-8	6010C	mg/kg	6.02		6.71		10.84
Metals	Iron	7439-89-6	6010C	mg/kg	19100		19000		0.52
Metals	Lead	7439-92-1	6010C	mg/kg	4.92		5.22		5.92
Metals	Lithium	7439-93-2	6010C	mg/kg	23.6		22.4		5.22
Metals	Magnesium	7439-95-4	6010C	mg/kg	4100		4080		0.49
Metals	Manganese	7439-96-5	6010C	mg/kg	245		244		0.41
Metals	Molybdenum	7439-98-7	6010C	mg/kg	2	UJ	2.05	UJ	--
Metals	Nickel	7440-02-0	6010C	mg/kg	8.86		8.81		0.57
Metals	Phosphorus	7723-14-0	6010C	mg/kg	426	J	399	J	6.55
Metals	Potassium	9/7/7440	6010C	mg/kg	3400	J	3560	J	4.60
Metals	Selenium	7782-49-2	6020A	mg/kg	0.399	UJ	0.102	J	200.00
Metals	Silver	7440-22-4	6020A	mg/kg	0.2	UJ	0.024	J	200.00
Metals	Sodium	7440-23-5	6010C	mg/kg	69.5	J	69.3	J	0.29
Metals	Strontium	7440-24-6	6020A	mg/kg	14.9	J	19.4	J	26.24
Metals	Thallium	7440-28-0	6020A	mg/kg	0.244		0.223		8.99
Metals	Tin	7440-31-5	6010C	mg/kg	9.98	U	10.2	U	--
Metals	Titanium	7440-32-6	6010C	mg/kg	983		888		10.15
Metals	Vanadium	7440-62-2	6010C	mg/kg	32		29.8		7.12
Metals	Zinc	7440-66-6	6010C	mg/kg	52.3		55.8		6.48
Metals	Zirconium	7440-67-7	6010C	mg/kg	4.99	UJ	0.921	J	200.00
Moisture Content	Moisture	MOIST	160.3M	%	2.7		3.3		20.00
PAHs	1-Methylnaphthalene	90-12-0	8270D SIM	µg/kg	1.7	U	1.7	U	--
PAHs	2-Methylnaphthalene	91-57-6	8270D SIM	µg/kg	1.7	U	1.7	U	--
PAHs	Acenaphthene	83-32-9	8270D SIM	µg/kg	1.7	U	1.7	U	--
PAHs	Acenaphthylene	208-96-8	8270D SIM	µg/kg	1.7	U	1.7	U	--
PAHs	Anthracene	120-12-7	8270D SIM	µg/kg	1.7	U	1.7	U	--
PAHs	Benzo(a)anthracene	56-55-3	8270D SIM	µg/kg	0.8	J	1.7	UJ	200.00
PAHs	Benzo(a)pyrene	50-32-8	8270D SIM	µg/kg	0.89	J	0.74	J	18.40
PAHs	Benzo(b)fluoranthene	205-99-2	8270D SIM	µg/kg	1.6	J	1.4	J	13.33
PAHs	Benzo(e)pyrene	192-97-2	8270D SIM	µg/kg	17	U	18	UJ	--
PAHs	Benzo(g,h,i)perylene	191-24-2	8270D SIM	µg/kg	0.77	J	0.98	J	24.00
PAHs	Benzo(k)fluoranthene	207-08-9	8270D SIM	µg/kg	1.7	U	1.7	U	--
PAHs	Bis(2-ethylhexyl)phthalate	117-81-7	8270D SIM	µg/kg	13	J	15	J	14.29
PAHs	Butylbenzylphthalate	85-68-7	8270D SIM	µg/kg	8.7	J	6.7	J	25.97
PAHs	Chrysene	218-01-9	8270D SIM	µg/kg	1.5	J	1.6	J	6.45
PAHs	Dibenzo(a,h)anthracene	53-70-3	8270D SIM	µg/kg	1.7	U	1.7	U	--
PAHs	Diethylphthalate	84-66-2	8270D SIM	µg/kg	19	U	19	U	--
PAHs	Dimethylphthalate	131-11-3	8270D SIM	µg/kg	19	U	19	U	--
PAHs	Di-n-butylphthalate	84-74-2	8270D SIM	µg/kg	19	U	19	U	--
PAHs	Di-n-octylphthalate	117-84-0	8270D SIM	µg/kg	19	U	19	U	--
PAHs	Fluoranthene	206-44-0	8270D SIM	µg/kg	1.7		1.4	J	19.35
PAHs	Fluorene	86-73-7	8270D SIM	µg/kg	1.7	U	1.7	U	--
PAHs	Indeno(1,2,3-cd)pyrene	193-39-5	8270D SIM	µg/kg	1.7	U	1.7	U	--
PAHs	Naphthalene	91-20-3	8270D SIM	µg/kg	1.7	UJ	1.7	UJ	--
PAHs	N-Nitrosodimethylamine	62-75-9	8270D SIM	µg/kg	1.7	U	1.7	U	--
PAHs	Phenanthrene	85-01-8	8270D SIM	µg/kg	1.1	J	0.77	J	35.29
PAHs	Pyrene	129-00-0	8270D SIM	µg/kg	2.1		1.5	J	33.33
PCBPCTs	Aroclor 1016	12674-11-2	8082A	µg/kg	17	U	18	U	--
PCBPCTs	Aroclor 1221	11104-28-2	8082A	µg/kg	17	U	18	U	--
PCBPCTs	Aroclor 1232	11141-16-5	8082A	µg/kg	17	U	18	U	--
PCBPCTs	Aroclor 1242	53469-21-9	8082A	µg/kg	17	U	18	U	--
PCBPCTs	Aroclor 1248	12672-29-6	8082A	µg/kg	17	U	18	U	--
PCBPCTs	Aroclor 1254	11097-69-1	8082A	µg/kg	17	U	18	U	--
PCBPCTs	Aroclor 1260	11096-82-5	8082A	µg/kg	17	U	18	U	--
PCBPCTs	Aroclor 1262	37324-23-5	8082A	µg/kg	17	U	18	U	--
PCBPCTs	Aroclor 1268	11100-14-4	8082A	µg/kg	17	U	18	U	--
PCBPCTs	Aroclor 5432	63496-31-1	8082A	µg/kg	34	U	34	U	--
PCBPCTs	Aroclor 5442	12642-23-8	8082A	µg/kg	34	U	34	U	--
PCBPCTs	Aroclor 5460	11126-42-4	8082A	µg/kg	34	U	34	U	--
Pesticides	4,4'-DDD	72-54-8	8081B	µg/kg					--
Pesticides	4,4'-DDE	72-55-9	8081B	µg/kg					--
Pesticides	4,4'-DDT	50-29-3	8081B	µg/kg					--

Table C8 - Subarea 7 - Field Duplicates

				Location	7_DG-540		7_DG-540		RPD
				Sample Name:	SL-840-SA7-SB-0.0-0.5		SL-540-SA7-SB-0.0-0.5		
				Sample Date	04/09/2013		04/09/2013		
				Start Depth:	0		0		
				End Depth:	0.5		0.5		
				Area:	7_DG		7_DG		
				Matrix:	SO		SO		
				Sample Type:	FD		N		
Pesticides	Aldrin	309-00-2	8081B	µg/kg					--
Pesticides	Alpha-Bhc	319-84-6	8081B	µg/kg					--
Pesticides	Beta-Bhc	319-85-7	8081B	µg/kg					--
Pesticides	Chlordane	57-74-9	8081B	µg/kg					--
Pesticides	Delta-Bhc	319-86-8	8081B	µg/kg					--
Pesticides	Dieldrin	60-57-1	8081B	µg/kg					--
Pesticides	Endosulfan I	959-98-8	8081B	µg/kg					--
Pesticides	Endosulfan II	33213-65-9	8081B	µg/kg					--
Pesticides	Endosulfan Sulfate	1031-07-8	8081B	µg/kg					--
Pesticides	Endrin	72-20-8	8081B	µg/kg					--
Pesticides	Endrin Aldehyde	7421-93-4	8081B	µg/kg					--
Pesticides	Endrin Ketone	53494-70-5	8081B	µg/kg					--
Pesticides	Gamma-Bhc (Lindane)	58-89-9	8081B	µg/kg					--
Pesticides	Heptachlor	76-44-8	8081B	µg/kg					--
Pesticides	Heptachlor Epoxide	1024-57-3	8081B	µg/kg					--
Pesticides	Methoxychlor	72-43-5	8081B	µg/kg					--
Pesticides	Mirex	2385-85-5	8081B	µg/kg					--
Pesticides	Technical Toxaphene	8001-35-2	8081B	µg/kg					--
pH	pH	pH	9045M	pH					--
TPH-EFH	EFH (C8-C11)	PHCC8C11	8015M	mg/kg	5.1	U	5.1	U	--
TPH-EFH	EFH (C12-C14)	PHCC12C14	8015M	mg/kg	5.1	U	5.1	U	--
TPH-EFH	EFH (C15-C20)	PHCC15C20	8015M	mg/kg	4.3	J	3	J	35.62
TPH-EFH	EFH (C21-C30)	PHCC21C30	8015M	mg/kg	7		4.9	J	35.29
TPH-EFH	EFH (C30-C40)	PHCC30C40	8015M	mg/kg	46	J	17	J	92.06
TPH-GRO	Gasoline Range Organics (C5-C12)	GROC5C12	8015M	mg/kg					--

Notes:
ug/kg - microgram per kilogram
mg/kg - milligram per kilogram
ng/g - nanogram per kilogram
FD - field duplicate sample
N - normal sample
RPD - relative percent difference
SO - soil
-- - RPD not calculated when both field duplicate and normal samples were nondetect or only one sample result is reported
200* - When one result is nondetect a 200% RPD is given and sample results are qualified as estimated "J" or "UJ" in the field duplicate samples only

Limit - 50% - If RPD is above 50% detected field duplicate results only were estimated "J"

Table C8 - Subarea 7 - Field Duplicates

				Location	7_DG-513		7_DG-513		RPD
				Sample Name:	SL-913-SA7-SB-0.0-0.5		SL-513-SA7-SB-0.0-0.5		
				Sample Date	06/04/2013		06/04/2013		
				Start Depth:	0		0		
				End Depth:	0.5		0.5		
				Area:	7_DG		7_DG		
				Matrix:	SO		SO		
				Sample Type:	FD		N		
MAG:	Chemical Name:	CAS No.:	Lab Method:	Result Unit					
Dioxins	1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	35822-46-9	1613B	ng/kg	40.7	J	95.8	J	80.73
Dioxins	1,2,3,4,6,7,8-HPCDF	67562-39-4	1613B	ng/kg	8.72	J	19.2	J	75.07
Dioxins	1,2,3,4,7,8,9-HPCDF	55673-89-7	1613B	ng/kg	0.775	J	1.28	J	49.15
Dioxins	1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	39227-28-6	1613B	ng/kg	0.527	J	1.06	J	67.17
Dioxins	1,2,3,4,7,8-HXCDF	70648-26-9	1613B	ng/kg	0.864	J	0.876	J	1.38
Dioxins	1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	57653-85-7	1613B	ng/kg	1.49	J	3.18	J	72.38
Dioxins	1,2,3,6,7,8-HXCDF	57117-44-9	1613B	ng/kg	0.706	J	0.913	J	25.57
Dioxins	1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	19408-74-3	1613B	ng/kg	0.998	J	1.87	J	60.81
Dioxins	1,2,3,7,8,9-HXCDF	72918-21-9	1613B	ng/kg	4.96	U	5.09	U	--
Dioxins	1,2,3,7,8-Pentachlorodibenzofuran	57117-41-6	1613B	ng/kg	0.646	J	0.702	J	8.31
Dioxins	1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	40321-76-4	1613B	ng/kg	4.96	U	0.451	J	200.00
Dioxins	2,3,4,6,7,8-HXCDF	60851-34-5	1613B	ng/kg	0.624	J	0.894	J	35.57
Dioxins	2,3,4,7,8-PECDF	57117-31-4	1613B	ng/kg	0.691	J	0.839	J	19.35
Dioxins	2,3,7,8-TCDD	1746-01-6	1613B	ng/kg	0.0389	J	0.11	J	95.50
Dioxins	2,3,7,8-Tetrachlorodibenzofuran	51207-31-9	1613B	ng/kg	0.457	J	0.763	J	50.16
Dioxins	OCDD	3268-87-9	1613B	ng/kg	396	J	906	J	78.34
Dioxins	OCDF	39001-02-0	1613B	ng/kg	28.3	J	82.8	J	98.11
Dioxins	TCDD TEQ	TCDD TEQ	1613B	ng/kg	1.49		3.17		72.10
Formaldehyde	Formaldehyde	50-00-0	8315A	µg/kg					--
Hexavalent Chormium	Chromium (Hexavalent Compounds)	18540-29-9	7199	mg/kg					--
Mercury	Mercury	7439-97-6	7471B	mg/kg	0.0267	J	0.0151	J	55.50
Metals	Aluminum	7429-90-5	6010C	mg/kg	9640		9050		6.31
Metals	Antimony	7440-36-0	6010C	mg/kg	0.637	J	0.573	J	10.58
Metals	Arsenic	7440-38-2	6010C	mg/kg	4.31		4.18		3.06
Metals	Barium	7440-39-3	6010C	mg/kg	65.4		61.3		6.47
Metals	Beryllium	7440-41-7	6010C	mg/kg	0.453	J	0.404	J	11.44
Metals	Boron	7440-42-8	6010C	mg/kg	6.3	J	6.16	J	2.25
Metals	Cadmium	7440-43-9	6010C	mg/kg	0.511	J	0.513	J	0.39
Metals	Calcium	7440-70-2	6010C	mg/kg	2620		2450		6.71
Metals	Chromium	7440-47-3	6010C	mg/kg	12.4		11.6		6.67
Metals	Cobalt	7440-48-4	6010C	mg/kg	4.18		3.77		10.31
Metals	Copper	7440-50-8	6010C	mg/kg	5.92		5.37		9.74
Metals	Iron	7439-89-6	6010C	mg/kg	16700		16400		1.81
Metals	Lead	7439-92-1	6010C	mg/kg	9.75		7.81		22.10
Metals	Lithium	7439-93-2	6010C	mg/kg	22.4		22.2		0.90
Metals	Magnesium	7439-95-4	6010C	mg/kg	3720		3550		4.68
Metals	Manganese	7439-96-5	6010C	mg/kg	255		243		4.82
Metals	Molybdenum	7439-98-7	6010C	mg/kg	2.01	UJ	2.04	UJ	--
Metals	Nickel	7440-02-0	6010C	mg/kg	7.63		6.82		11.21
Metals	Phosphorus	7723-14-0	6010C	mg/kg	389		385		1.03
Metals	Potassium	9/7/7440	6010C	mg/kg	3160	J	2980	J	5.86
Metals	Selenium	7782-49-2	6020A	mg/kg	0.402	U	0.407	U	--
Metals	Silver	7440-22-4	6020A	mg/kg	0.201	UJ	0.0323	J	200.00
Metals	Sodium	7440-23-5	6010C	mg/kg	63.2	J	63.8	J	0.94
Metals	Strontium	7440-24-6	6020A	mg/kg	9.91		8.69		13.12
Metals	Thallium	7440-28-0	6020A	mg/kg	0.209		0.202	J	3.41
Metals	Tin	7440-31-5	6010C	mg/kg	10.1	U	10.2	U	--
Metals	Titanium	7440-32-6	6010C	mg/kg	1030		945		8.61
Metals	Vanadium	7440-62-2	6010C	mg/kg	26.7		25		6.58
Metals	Zinc	7440-66-6	6010C	mg/kg	76.4		67.4		12.52
Metals	Zirconium	7440-67-7	6010C	mg/kg	2.48	J	2.22	J	11.06
Moisture Content	Moisture	MOIST	160.3M	%	1.5		1.8		18.18
PAHs	1-Methylnaphthalene	90-12-0	8270D SIM	µg/kg	17	U	17	U	--
PAHs	2-Methylnaphthalene	91-57-6	8270D SIM	µg/kg	17	U	17	U	--
PAHs	Acenaphthene	83-32-9	8270D SIM	µg/kg	17	U	17	U	--
PAHs	Acenaphthylene	208-96-8	8270D SIM	µg/kg	17	U	17	U	--
PAHs	Anthracene	120-12-7	8270D SIM	µg/kg	17	U	17	U	--
PAHs	Benzo(a)anthracene	56-55-3	8270D SIM	µg/kg	17	U	17	U	--
PAHs	Benzo(a)pyrene	50-32-8	8270D SIM	µg/kg	17	U	17	U	--
PAHs	Benzo(b)fluoranthene	205-99-2	8270D SIM	µg/kg	13	J	18		32.26
PAHs	Benzo(e)pyrene	192-97-2	8270D SIM	µg/kg	170	U	170	U	--
PAHs	Benzo(g,h,i)perylene	191-24-2	8270D SIM	µg/kg	17	U	17	U	--
PAHs	Benzo(k)fluoranthene	207-08-9	8270D SIM	µg/kg	17	U	17	U	--
PAHs	Bis(2-ethylhexyl)phthalate	117-81-7	8270D SIM	µg/kg	180	U	180	U	--
PAHs	Butylbenzylphthalate	85-68-7	8270D SIM	µg/kg	180	U	180	U	--
PAHs	Chrysene	218-01-9	8270D SIM	µg/kg	20		23		13.95
PAHs	Dibenzo(a,h)anthracene	53-70-3	8270D SIM	µg/kg	17	U	17	U	--
PAHs	Diethylphthalate	84-66-2	8270D SIM	µg/kg	180	U	180	U	--
PAHs	Dimethylphthalate	131-11-3	8270D SIM	µg/kg	180	U	180	U	--
PAHs	Di-n-butylphthalate	84-74-2	8270D SIM	µg/kg	180	U	180	U	--
PAHs	Di-n-octylphthalate	117-84-0	8270D SIM	µg/kg	180	U	180	U	--
PAHs	Fluoranthene	206-44-0	8270D SIM	µg/kg	8.3	J	7	J	16.99
PAHs	Fluorene	86-73-7	8270D SIM	µg/kg	17	U	17	U	--
PAHs	Indeno(1,2,3-cd)pyrene	193-39-5	8270D SIM	µg/kg	17	U	17	U	--
PAHs	Naphthalene	91-20-3	8270D SIM	µg/kg	17	U	17	U	--
PAHs	N-Nitrosodimethylamine	62-75-9	8270D SIM	µg/kg	17	U	17	U	--
PAHs	Phenanthrene	85-01-8	8270D SIM	µg/kg	17	U	17	U	--
PAHs	Pyrene	129-00-0	8270D SIM	µg/kg	8.4	J	7.5	J	11.32
PCBPCTs	Aroclor 1016	12674-11-2	8082A	µg/kg	17	U	17	U	--
PCBPCTs	Aroclor 1221	11104-28-2	8082A	µg/kg	17	U	17	U	--
PCBPCTs	Aroclor 1232	11141-16-5	8082A	µg/kg	17	U	17	U	--
PCBPCTs	Aroclor 1242	53469-21-9	8082A	µg/kg	17	U	17	U	--
PCBPCTs	Aroclor 1248	12672-29-6	8082A	µg/kg	17	U	17	U	--
PCBPCTs	Aroclor 1254	11097-69-1	8082A	µg/kg	13	J	13	J	0.00
PCBPCTs	Aroclor 1260	11096-82-5	8082A	µg/kg	17	U	17	U	--
PCBPCTs	Aroclor 1262	37324-23-5	8082A	µg/kg	17	U	17	U	--
PCBPCTs	Aroclor 1268	11100-14-4	8082A	µg/kg	17	U	17	U	--
PCBPCTs	Aroclor 5432	63496-31-1	8082A	µg/kg	34	U	33	U	--
PCBPCTs	Aroclor 5442	12642-23-8	8082A	µg/kg	34	U	33	U	--
PCBPCTs	Aroclor 5460	11126-42-4	8082A	µg/kg	17	J	33	UJ	200.00
Pesticides	4,4'-DDD	72-54-8	8081B	µg/kg	1.7	U	1.7	U	--
Pesticides	4,4'-DDE	72-55-9	8081B	µg/kg	1.8	UJ	0.53	J	200.00
Pesticides	4,4'-DDT	50-29-3	8081B	µg/kg	6.3		7	J	10.53

Table C8 - Subarea 7 - Field Duplicates

				Location	7_DG-513		7_DG-513		RPD
				Sample Name:	SL-913-SA7-SB-0.0-0.5		SL-513-SA7-SB-0.0-0.5		
				Sample Date	06/04/2013		06/04/2013		
				Start Depth:	0		0		
				End Depth:	0.5		0.5		
				Area:	7_DG		7_DG		
				Matrix:	SO		SO		
				Sample Type:	FD		N		
Pesticides	Aldrin	309-00-2	8081B	µg/kg	0.84	U	0.85	U	--
Pesticides	Alpha-Bhc	319-84-6	8081B	µg/kg	0.84	U	0.85	U	--
Pesticides	Beta-Bhc	319-85-7	8081B	µg/kg	1.9	U	1.9	U	--
Pesticides	Chlordane	57-74-9	8081B	µg/kg	17	U	17	U	--
Pesticides	Delta-Bhc	319-86-8	8081B	µg/kg	0.84	U	0.85	U	--
Pesticides	Dieldrin	60-57-1	8081B	µg/kg	1.7	U	1.7	U	--
Pesticides	Endosulfan I	959-98-8	8081B	µg/kg	0.84	U	0.85	U	--
Pesticides	Endosulfan II	33213-65-9	8081B	µg/kg	1.7	U	1.7	U	--
Pesticides	Endosulfan Sulfate	1031-07-8	8081B	µg/kg	1.7	U	1.7	U	--
Pesticides	Endrin	72-20-8	8081B	µg/kg	1.7	U	1.7	U	--
Pesticides	Endrin Aldehyde	7421-93-4	8081B	µg/kg	1.7	U	1.7	U	--
Pesticides	Endrin Ketone	53494-70-5	8081B	µg/kg	1.8	U	1.8	U	--
Pesticides	Gamma-Bhc (Lindane)	58-89-9	8081B	µg/kg	0.84	U	0.85	U	--
Pesticides	Heptachlor	76-44-8	8081B	µg/kg	0.84	U	0.85	U	--
Pesticides	Heptachlor Epoxide	1024-57-3	8081B	µg/kg	0.84	U	0.85	U	--
Pesticides	Methoxychlor	72-43-5	8081B	µg/kg	6.8	U	6.8	U	--
Pesticides	Mirex	2385-85-5	8081B	µg/kg	0.89	J	0.63	J	34.21
Pesticides	Technical Toxaphene	8001-35-2	8081B	µg/kg	34	U	34	U	--
pH	pH	pH	9045M	pH	6.72		6.68		0.60
TPH-EFH	EFH (C8-C11)	PHCC8C11	8015M	mg/kg	50	U	25	U	--
TPH-EFH	EFH (C12-C14)	PHCC12C14	8015M	mg/kg	50	U	25	U	--
TPH-EFH	EFH (C15-C20)	PHCC15C20	8015M	mg/kg	50	U	25	U	--
TPH-EFH	EFH (C21-C30)	PHCC21C30	8015M	mg/kg	160		100		46.15
TPH-EFH	EFH (C30-C40)	PHCC30C40	8015M	mg/kg	350	J	160	J	74.51
TPH-GRO	Gasoline Range Organics (C5-C12)	GROC5C12	8015M	mg/kg					--

Notes:
ug/kg - microgram per kilogram
mg/kg - milligram per kilogram
ng/g - nanogram per kilogram
FD - field duplicate sample
N - normal sample
RPD - relative percent difference
SO - soil
-- - RPD not calculated when both field duplicate and normal samples were nondetect or only one sample result is reported
200* - When one result is nondetect a 200% RPD is given and sample results are qualified as estimated "J" or "UJ" in the field duplicate samples only

Limit - 50% - If RPD is above 50% detected field duplicate results only were estimated "J"

Table C8 - Subarea 7 - Field Duplicates

				Location	7_DG-524		7_DG-524		RPD
				Sample Name:	SL-924-SA7-SB-1.0-2.0		SL-524-SA7-SB-1.0-2.0		
				Sample Date	06/04/2013		06/04/2013		
				Start Depth:	1		1		
				End Depth:	2		2		
				Area:	7_DG		7_DG		
				Matrix:	SO		SO		
				Sample Type:	FD		N		
MAG:	Chemical Name:	CAS No.:	Lab Method:	Result Unit					
Dioxins	1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	35822-46-9	1613B	ng/kg	5.37	UJ	0.859	J	200.00
Dioxins	1,2,3,4,6,7,8-HPCDF	67562-39-4	1613B	ng/kg	5.37	UJ	5.34	UJ	--
Dioxins	1,2,3,4,7,8,9-HPCDF	55673-89-7	1613B	ng/kg	5.37	UJ	5.34	UJ	--
Dioxins	1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	39227-28-6	1613B	ng/kg	5.37	UJ	5.34	UJ	--
Dioxins	1,2,3,4,7,8-HXCDF	70648-26-9	1613B	ng/kg	5.37	U	5.34	U	--
Dioxins	1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	57653-85-7	1613B	ng/kg	5.37	UJ	0.0966	J	200.00
Dioxins	1,2,3,6,7,8-HXCDF	57117-44-9	1613B	ng/kg	5.37	UJ	5.34	UJ	--
Dioxins	1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	19408-74-3	1613B	ng/kg	5.37	U	5.34	U	--
Dioxins	1,2,3,7,8,9-HXCDF	72918-21-9	1613B	ng/kg	5.37	U	5.34	U	--
Dioxins	1,2,3,7,8-Pentachlorodibenzofuran	57117-41-6	1613B	ng/kg	5.37	UJ	5.34	UJ	--
Dioxins	1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	40321-76-4	1613B	ng/kg	5.37	U	5.34	U	--
Dioxins	2,3,4,6,7,8-HXCDF	60851-34-5	1613B	ng/kg	5.37	U	5.34	U	--
Dioxins	2,3,4,7,8-PECDF	57117-31-4	1613B	ng/kg	5.37	U	5.34	U	--
Dioxins	2,3,7,8-TCDD	1746-01-6	1613B	ng/kg	1.07	UJ	1.07	UJ	--
Dioxins	2,3,7,8-Tetrachlorodibenzofuran	51207-31-9	1613B	ng/kg	0.0139	J	0.0189	J	30.49
Dioxins	OCDD	3268-87-9	1613B	ng/kg	2.71	J	10.5	J	117.94
Dioxins	OCDF	39001-02-0	1613B	ng/kg	10.7	UJ	10.7	UJ	--
Dioxins	TCDD TEQ	TCDD TEQ	1613B	ng/kg	0.0816		0.0324		86.32
Formaldehyde	Formaldehyde	50-00-0	8315A	µg/kg					--
Hexavalent Chormium	Chromium (Hexavalent Compounds)	18540-29-9	7199	mg/kg					--
Mercury	Mercury	7439-97-6	7471B	mg/kg	0.0178	U	0.0178	U	--
Metals	Aluminum	7429-90-5	6010C	mg/kg	13300		12300		7.81
Metals	Antimony	7440-36-0	6010C	mg/kg	4.25	U	4.16	U	--
Metals	Arsenic	7440-38-2	6010C	mg/kg	4.15	J	3.93	J	5.45
Metals	Barium	7440-39-3	6010C	mg/kg	78.6		88.1		11.40
Metals	Beryllium	7440-41-7	6010C	mg/kg	0.518	J	0.48	J	7.62
Metals	Boron	7440-42-8	6010C	mg/kg	2.31	J	1.87	J	21.05
Metals	Cadmium	7440-43-9	6010C	mg/kg	0.363	J	0.37	J	1.91
Metals	Calcium	7440-70-2	6010C	mg/kg	3310	J	5580	J	51.07
Metals	Chromium	7440-47-3	6010C	mg/kg	17.8		18.5		3.86
Metals	Cobalt	7440-48-4	6010C	mg/kg	4.93		4.59		7.14
Metals	Copper	7440-50-8	6010C	mg/kg	10.1	J	10.3	J	1.96
Metals	Iron	7439-89-6	6010C	mg/kg	21500	J	22000	J	2.30
Metals	Lead	7439-92-1	6010C	mg/kg	5.95		5.69		4.47
Metals	Lithium	7439-93-2	6010C	mg/kg	27		27.4		1.47
Metals	Magnesium	7439-95-4	6010C	mg/kg	4600		4840		5.08
Metals	Manganese	7439-96-5	6010C	mg/kg	269		280		4.01
Metals	Molybdenum	7439-98-7	6010C	mg/kg	2.12	UJ	2.08	UJ	--
Metals	Nickel	7440-02-0	6010C	mg/kg	8.12	J	7.9	J	2.75
Metals	Phosphorus	7723-14-0	6010C	mg/kg	410	J	401	J	2.22
Metals	Potassium	9/7/7440	6010C	mg/kg	2870	J	3230	J	11.80
Metals	Selenium	7782-49-2	6020A	mg/kg	0.425	U	0.416	U	--
Metals	Silver	7440-22-4	6020A	mg/kg	0.023	J	0.208	UJ	200.00
Metals	Sodium	7440-23-5	6010C	mg/kg	132		123		7.06
Metals	Strontium	7440-24-6	6020A	mg/kg	15.4	J	17.9	J	15.02
Metals	Thallium	7440-28-0	6020A	mg/kg	0.228		0.285		22.22
Metals	Tin	7440-31-5	6010C	mg/kg	10.6	U	10.4	U	--
Metals	Titanium	7440-32-6	6010C	mg/kg	1250		1280		2.37
Metals	Vanadium	7440-62-2	6010C	mg/kg	34.2		32.9		3.87
Metals	Zinc	7440-66-6	6010C	mg/kg	54.3		59.2		8.63
Metals	Zirconium	7440-67-7	6010C	mg/kg	1.01	J	5.2	UJ	200.00
Moisture Content	Moisture	MOIST	160.3M	%	7.7		7.5		2.63
PAHs	1-Methylnaphthalene	90-12-0	8270D SIM	µg/kg	1.8	U	1.8	U	--
PAHs	2-Methylnaphthalene	91-57-6	8270D SIM	µg/kg	1.8	U	1.8	U	--
PAHs	Acenaphthene	83-32-9	8270D SIM	µg/kg	1.8	U	1.8	U	--
PAHs	Acenaphthylene	208-96-8	8270D SIM	µg/kg	1.8	U	1.8	U	--
PAHs	Anthracene	120-12-7	8270D SIM	µg/kg	1.8	U	1.8	U	--
PAHs	Benzo(a)anthracene	56-55-3	8270D SIM	µg/kg	1.3	J	1.5	J	14.29
PAHs	Benzo(a)pyrene	50-32-8	8270D SIM	µg/kg	1.7	J	1.5	J	12.50
PAHs	Benzo(b)fluoranthene	205-99-2	8270D SIM	µg/kg	3.7		2.5		38.71
PAHs	Benzo(e)pyrene	192-97-2	8270D SIM	µg/kg	8	J	6.5	J	20.69
PAHs	Benzo(g,h,i)perylene	191-24-2	8270D SIM	µg/kg	1	J	1.3	J	26.09
PAHs	Benzo(k)fluoranthene	207-08-9	8270D SIM	µg/kg	1.8	J	1.8	UJ	200.00
PAHs	Bis(2-ethylhexyl)phthalate	117-81-7	8270D SIM	µg/kg	20	U	19	U	--
PAHs	Butylbenzylphthalate	85-68-7	8270D SIM	µg/kg	20	U	19	U	--
PAHs	Chrysene	218-01-9	8270D SIM	µg/kg	8.6		7.2	J	17.72
PAHs	Dibenzo(a,h)anthracene	53-70-3	8270D SIM	µg/kg	1.8	UJ	0.75	J	200.00
PAHs	Diethylphthalate	84-66-2	8270D SIM	µg/kg	20	U	19	U	--
PAHs	Dimethylphthalate	131-11-3	8270D SIM	µg/kg	20	U	19	U	--
PAHs	Di-n-butylphthalate	84-74-2	8270D SIM	µg/kg	20	U	19	U	--
PAHs	Di-n-octylphthalate	117-84-0	8270D SIM	µg/kg	20	U	19	U	--
PAHs	Fluoranthene	206-44-0	8270D SIM	µg/kg	1.1	J	0.96	J	13.59
PAHs	Fluorene	86-73-7	8270D SIM	µg/kg	1.8	U	1.8	U	--
PAHs	Indeno(1,2,3-cd)pyrene	193-39-5	8270D SIM	µg/kg	1.8	U	1.8	U	--
PAHs	Naphthalene	91-20-3	8270D SIM	µg/kg	1.8	U	1.8	U	--
PAHs	N-Nitrosodimethylamine	62-75-9	8270D SIM	µg/kg	1.8	U	1.8	U	--
PAHs	Phenanthrene	85-01-8	8270D SIM	µg/kg	3.7		4.1	J	10.26
PAHs	Pyrene	129-00-0	8270D SIM	µg/kg	4.6	J	2.5	J	59.15
PCBPCTs	Aroclor 1016	12674-11-2	8082A	µg/kg	18	U	18	U	--
PCBPCTs	Aroclor 1221	11104-28-2	8082A	µg/kg	18	U	18	U	--
PCBPCTs	Aroclor 1232	11141-16-5	8082A	µg/kg	18	U	18	U	--
PCBPCTs	Aroclor 1242	53469-21-9	8082A	µg/kg	18	U	18	U	--
PCBPCTs	Aroclor 1248	12672-29-6	8082A	µg/kg	18	U	18	U	--
PCBPCTs	Aroclor 1254	11097-69-1	8082A	µg/kg	18	U	18	U	--
PCBPCTs	Aroclor 1260	11096-82-5	8082A	µg/kg	18	U	18	U	--
PCBPCTs	Aroclor 1262	37324-23-5	8082A	µg/kg	18	U	18	U	--
PCBPCTs	Aroclor 1268	11100-14-4	8082A	µg/kg	18	U	18	U	--
PCBPCTs	Aroclor 5432	63496-31-1	8082A	µg/kg	36	U	36	U	--
PCBPCTs	Aroclor 5442	12642-23-8	8082A	µg/kg	36	U	36	U	--
PCBPCTs	Aroclor 5460	11126-42-4	8082A	µg/kg	36	U	36	U	--
Pesticides	4,4'-DDD	72-54-8	8081B	µg/kg					--
Pesticides	4,4'-DDE	72-55-9	8081B	µg/kg					--
Pesticides	4,4'-DDT	50-29-3	8081B	µg/kg					--

Table C8 - Subarea 7 - Field Duplicates

				Location	7_DG-524		7_DG-524		RPD
				Sample Name:	SL-924-SA7-SB-1.0-2.0		SL-524-SA7-SB-1.0-2.0		
				Sample Date	06/04/2013		06/04/2013		
				Start Depth:	1		1		
				End Depth:	2		2		
				Area:	7_DG		7_DG		
				Matrix:	SO		SO		
				Sample Type:	FD		N		
Pesticides	Aldrin	309-00-2	8081B	µg/kg					--
Pesticides	Alpha-Bhc	319-84-6	8081B	µg/kg					--
Pesticides	Beta-Bhc	319-85-7	8081B	µg/kg					--
Pesticides	Chlordane	57-74-9	8081B	µg/kg					--
Pesticides	Delta-Bhc	319-86-8	8081B	µg/kg					--
Pesticides	Dieldrin	60-57-1	8081B	µg/kg					--
Pesticides	Endosulfan I	959-98-8	8081B	µg/kg					--
Pesticides	Endosulfan II	33213-65-9	8081B	µg/kg					--
Pesticides	Endosulfan Sulfate	1031-07-8	8081B	µg/kg					--
Pesticides	Endrin	72-20-8	8081B	µg/kg					--
Pesticides	Endrin Aldehyde	7421-93-4	8081B	µg/kg					--
Pesticides	Endrin Ketone	53494-70-5	8081B	µg/kg					--
Pesticides	Gamma-Bhc (Lindane)	58-89-9	8081B	µg/kg					--
Pesticides	Heptachlor	76-44-8	8081B	µg/kg					--
Pesticides	Heptachlor Epoxide	1024-57-3	8081B	µg/kg					--
Pesticides	Methoxychlor	72-43-5	8081B	µg/kg					--
Pesticides	Mirex	2385-85-5	8081B	µg/kg					--
Pesticides	Technical Toxaphene	8001-35-2	8081B	µg/kg					--
pH	pH	pH	9045M	pH	8.3		8.18		1.46
TPH-EFH	EFH (C8-C11)	PHCC8C11	8015M	mg/kg	5.4	U	5.4	U	--
TPH-EFH	EFH (C12-C14)	PHCC12C14	8015M	mg/kg	5.4	U	5.4	U	--
TPH-EFH	EFH (C15-C20)	PHCC15C20	8015M	mg/kg	5.4	U	5.4	U	--
TPH-EFH	EFH (C21-C30)	PHCC21C30	8015M	mg/kg	14		12	J	15.38
TPH-EFH	EFH (C30-C40)	PHCC30C40	8015M	mg/kg	36		23		44.07
TPH-GRO	Gasoline Range Organics (C5-C12)	GROC5C12	8015M	mg/kg	1	U	1	U	--

Notes:
ug/kg - microgram per kilogram
mg/kg - milligram per kilogram
ng/g - nanogram per kilogram
FD - field duplicate sample
N - normal sample
RPD - relative percent difference
SO - soil
-- - RPD not calculated when both field duplicate and normal samples were nondetect or only one sample result is reported
200* - When one result is nondetect a 200% RPD is given and sample results are qualified as estimated "J" or "UJ" in the field duplicate samples only

Limit - 50% - If RPD is above 50% detected field duplicate results only were estimated "J"

Table C9 - Northern Buffer Zone - Field Duplicates

				Location	NBZ_DG-504		NBZ_DG-504		RPD	NBZ_DG-509		NBZ_DG-509		RPD
				Sample Name:	SL-804-NBZ-SB-0.0-0.5		SL-504-NBZ-SB-0.0-0.5			SL-809-NBZ-SB-2.5-3.5		SL-509-NBZ-SB-2.5-3.5		
				Sample Date	12/03/2013		12/03/2013			12/03/2013		12/03/2013		
				Start Depth:	0		0			2.5		2.5		
				End Depth:	0.5		0.5			3.5		3.5		
				Area:	NBZ_DG		NBZ_DG			NBZ_DG		NBZ_DG		
				Matrix:	SO		SO			SO		SO		
				Sample Type:	FD		N			FD		N		
MAG:	Chemical Name:	CAS No.:	Lab Method:	Result Unit										
Cyanide	Cyanide	57-12-5	9012B	mg/kg					--					--
Dioxins	1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	35822-46-9	1613B	ng/kg					--	5.17	UJ	5.18	UJ	--
Dioxins	1,2,3,4,6,7,8-HPCDF	67562-39-4	1613B	ng/kg					--	5.17	UJ	5.18	UJ	--
Dioxins	1,2,3,4,7,8,9-HPCDF	55673-89-7	1613B	ng/kg					--	5.17	UJ	5.18	UJ	--
Dioxins	1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	39227-28-6	1613B	ng/kg					--	5.17	UJ	5.18	UJ	--
Dioxins	1,2,3,4,7,8-HXCDF	70648-26-9	1613B	ng/kg					--	5.17	U	5.18	U	--
Dioxins	1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	57653-85-7	1613B	ng/kg					--	5.17	UJ	5.18	UJ	--
Dioxins	1,2,3,6,7,8-HXCDF	57117-44-9	1613B	ng/kg					--	5.17	UJ	5.18	UJ	--
Dioxins	1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	19408-74-3	1613B	ng/kg					--	5.17	U	5.18	U	--
Dioxins	1,2,3,7,8,9-HXCDF	72918-21-9	1613B	ng/kg					--	5.17	UJ	5.18	UJ	--
Dioxins	1,2,3,7,8-Pentachlorodibenzofuran	57117-41-6	1613B	ng/kg					--	5.17	U	5.18	U	--
Dioxins	1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	40321-76-4	1613B	ng/kg					--	0.107	J	5.18	UJ	200.00
Dioxins	2,3,4,6,7,8-HXCDF	60851-34-5	1613B	ng/kg					--	5.17	UJ	5.18	UJ	--
Dioxins	2,3,4,7,8-PECDF	57117-31-4	1613B	ng/kg					--	5.17	U	5.18	U	--
Dioxins	2,3,7,8-TCDD	1746-01-6	1613B	ng/kg					--	1.03	U	1.04	U	--
Dioxins	2,3,7,8-Tetrachlorodibenzofuran	51207-31-9	1613B	ng/kg					--	1.03	U	1.04	U	--
Dioxins	OCDD	3268-87-9	1613B	ng/kg					--	10.3	UJ	10.4	UJ	--
Dioxins	OCDF	39001-02-0	1613B	ng/kg					--	10.3	U	10.4	U	--
Dioxins	TCDD TEQ	TCDD TEQ	1613B	ng/kg					--	0.0147		0.00775		61.92
Herbicides	2,2-Dichlor-Propionic Acid	75-99-0	8151A	µg/kg					--					--
Herbicides	2,4,5-T	93-76-5	8151A	µg/kg					--					--
Herbicides	2,4-D	94-75-7	8151A	µg/kg					--					--
Herbicides	2,4-DB	94-82-6	8151A	µg/kg					--					--
Herbicides	Dicamba	1918-00-9	8151A	µg/kg					--					--
Herbicides	Dichlorprop	120-36-5	8151A	µg/kg					--					--
Herbicides	Dinitrobutyl Phenol	88-85-7	8151A	µg/kg					--					--
Herbicides	MCPA	94-74-6	8151A	µg/kg					--					--
Herbicides	MCPP	93-65-2	8151A	µg/kg					--					--
Herbicides	Silvex (2,4,5-TP)	93-72-1	8151A	µg/kg					--					--
Mercury	Mercury	7439-97-6	7471B	mg/kg					--					--
Metals	Aluminum	7429-90-5	6010C	mg/kg					--					--
Metals	Antimony	7440-36-0	6010C	mg/kg					--					--
Metals	Arsenic	7440-38-2	6010C	mg/kg					--					--
Metals	Barium	7440-39-3	6010C	mg/kg					--					--
Metals	Beryllium	7440-41-7	6010C	mg/kg					--					--
Metals	Boron	7440-42-8	6010C	mg/kg					--					--
Metals	Cadmium	7440-43-9	6010C	mg/kg					--					--
Metals	Calcium	7440-70-2	6010C	mg/kg					--					--
Metals	Chromium	7440-47-3	6010C	mg/kg					--					--
Metals	Cobalt	7440-48-4	6010C	mg/kg					--					--
Metals	Copper	7440-50-8	6010C	mg/kg					--					--
Metals	Iron	7439-89-6	6010C	mg/kg					--					--
Metals	Lead	7439-92-1	6010C	mg/kg					--					--
Metals	Lithium	7439-93-2	6010C	mg/kg					--					--
Metals	Magnesium	7439-95-4	6010C	mg/kg					--					--
Metals	Manganese	7439-96-5	6010C	mg/kg					--					--
Metals	Molybdenum	7439-98-7	6010C	mg/kg					--					--
Metals	Nickel	7440-02-0	6010C	mg/kg					--					--
Metals	Phosphorus	7723-14-0	6010C	mg/kg					--					--
Metals	Potassium	7440-09-7	6010C	mg/kg					--					--
Metals	Selenium	7782-49-2	6020A	mg/kg					--					--
Metals	Silver	7440-22-4	6020A	mg/kg					--					--
Metals	Sodium	7440-23-5	6010C	mg/kg					--					--
Metals	Strontium	7440-24-6	6020A	mg/kg					--					--
Metals	Thallium	7440-28-0	6020A	mg/kg					--					--
Metals	Tin	7440-31-5	6010C	mg/kg					--					--
Metals	Titanium	7440-32-6	6010C	mg/kg					--					--
Metals	Vanadium	7440-62-2	6010C	mg/kg					--					--
Metals	Zinc	7440-66-6	6010C	mg/kg					--					--
Metals	Zirconium	7440-67-7	6010C	mg/kg					--					--
Moisture Content	Moisture	MOIST	160.3M	%	1.9		2.2		14.63	5.4		4.5		18.18
Nitrates	Nitrate	14797-55-8	300.0	mg/kg					--					--
PAHs	1-Methylnaphthalene	90-12-0	8270D SIM	µg/kg					--	1.8	U	1.7	U	--
PAHs	2-Methylnaphthalene	91-57-6	8270D SIM	µg/kg					--	1.8	U	1.7	U	--
PAHs	Acenaphthene	83-32-9	8270D SIM	µg/kg					--	1.8	U	1.7	U	--
PAHs	Acenaphthylene	208-96-8	8270D SIM	µg/kg					--	1.8	U	1.7	U	--
PAHs	Anthracene	120-12-7	8270D SIM	µg/kg					--	1.8	U	1.7	U	--
PAHs	Benzo(a)anthracene	56-55-3	8270D SIM	µg/kg					--	1.8	U	1.7	U	--
PAHs	Benzo(a)pyrene	50-32-8	8270D SIM	µg/kg					--	1.8	U	1.7	U	--
PAHs	Benzo(b)fluoranthene	205-99-2	8270D SIM	µg/kg					--	1.8	U	1.7	U	--
PAHs	Benzo(e)pyrene	192-97-2	8270D SIM	µg/kg					--	18	U	18	U	--
PAHs	Benzo(g,h,i)perylene	191-24-2	8270D SIM	µg/kg					--	1.8	U	1.7	U	--
PAHs	Benzo(k)fluoranthene	207-08-9	8270D SIM	µg/kg					--	1.8	U	1.7	U	--
PAHs	Bis(2-ethylhexyl)phthalate	117-81-7	8270D SIM	µg/kg					--	19	U	19	U	--
PAHs	Butylbenzylphthalate	85-68-7	8270D SIM	µg/kg					--	19	U	19	U	--
PAHs	Chrysene	218-01-9	8270D SIM	µg/kg					--	1.8	U	1.7	U	--
PAHs	Dibenzo(a,h)anthracene	53-70-3	8270D SIM	µg/kg					--	1.8	U	1.7	U	--
PAHs	Diethylphthalate	84-66-2	8270D SIM	µg/kg					--	19	U	19	U	--
PAHs	Dimethylphthalate	131-11-3	8270D SIM	µg/kg					--	19	U	19	U	--
PAHs	Di-n-butylphthalate	84-74-2	8270D SIM	µg/kg					--	19	U	19	U	--
PAHs	Di-n-octylphthalate	117-84-0	8270D SIM	µg/kg					--	19	U	19	U	--
PAHs	Fluoranthene	206-44-0	8270D SIM	µg/kg					--	1.8	U	1.7	U	--
PAHs	Fluorene	86-73-7	8270D SIM	µg/kg					--	1.8	U	1.7	U	--
PAHs	Indeno(1,2,3-cd)pyrene	193-39-5	8270D SIM	µg/kg					--	1.8	U	1.7	U	--
PAHs	Naphthalene	91-20-3	8270D SIM	µg/kg					--	1.8	U	1.7	U	--
PAHs	N-Nitrosodimethylamine	62-75-9	8270D SIM	µg/kg					--	1.8	U	1.7	U	--
PAHs	Phenanthrene	85-01-8	8270D SIM	µg/kg					--	1.8	U	1.7	U	--
PAHs	Pyrene	129-00-0	8270D SIM	µg/kg					--	1.8	U	1.7	U	--
PCBPCTs	Aroclor 1016	12674-11-2	8082A	µg/kg					--	18	U	18	U	--
PCBPCTs	Aroclor 1221	11104-28-2	8082A	µg/kg					--	18	U	18	U	--
PCBPCTs	Aroclor 1232	11141-16-5	8082A	µg/kg					--	18	U	18	U	--
PCBPCTs	Aroclor 1242	53469-21-9	8082A	µg/kg					--	18	U	18	U	--
PCBPCTs	Aroclor 1248	12672-29-6	8082A	µg/kg					--	18	U	18	U	--
PCBPCTs	Aroclor 1254	11097-69-1	8082A	µg/kg					--	18	U	18	U	--
PCBPCTs	Aroclor 1260	11096-82-5	8082A	µg/kg					--	18	U	18	U	--
PCBPCTs	Aroclor 1262	37324-23-5	8082A	µg/kg					--	18	U	18	U	--
PCBPCTs	Aroclor 1268	11100-14-4	8082A	µg/kg					--	18	U	18	U	--
PCBPCTs	Aroclor 5432	63496-31-1	8082A	µg/kg					--	35	U	35	U	--
PCBPCTs	Aroclor 5442	12642-23-8	8082A	µg/kg					--	35	U	35	U	--
PCBPCTs	Aroclor 5460	11126-42-4	8082A	µg/kg					--	35	U	35	U	--
Pesticides	4,4'-DDD	72-54-8	8081B	µg/kg	1.7	U	1.7	U	--	1.8	U	1.8	U	--
Pesticides	4,4'-DDE	72-55-9	8081B	µg/kg	1.7	U	1.7	U	--	1.8	U	1.8	U	--
Pesticides	4,4'-DDT	50-29-3	8081B	µg/kg	1.7	U	1.7	U	--	1.8	U	1.8	U	--
Pesticides	Aldrin	309-00-2	8081B	µg/kg	0.83	U	0.84	U	--	0.88	U	0.87	U	--
Pesticides	Alpha-Bhc	319-84-6	8081B	µg/kg	0.83	U	0.84	U	--	0.88	U	0.87	U	--
Pesticides	Beta-Bhc	319-85-7	8081B	µg/kg	1.9	U	1.9	U	--	2.0	U	2.0	U	--
Pesticides	Chlordane	57-74-9	8081B	µg/kg	17	U	17	U	--	18	U	18	U	--
Pesticides	Delta-Bhc	319-86-8	8081B	µg/kg	0.83	U	0.84	U	--	0.88	U	0.87	U	--
Pesticides	Dieldrin	60-57-1	8081B	µg/kg	1.7	U	1.7	U	--	1.8	U	1.8	U	--
Pesticides	Endosulfan I	959-98-8	8081B	µg/kg	0.83	U	0.84	U	--	0.88	U	0.87	U	--
Pesticides	Endosulfan II	33213-65-9	8081B	µg/kg	1.7	U	1.7	U	--	1.8	U	1.8	U	--
Pesticides	Endosulfan Sulfate	1031-07-8	8081B	µg/kg	1.7	U	1.7	U	--	1.8	U	1.8	U	--
Pesticides	Endrin	72-20-8	8081B	µg/kg	1.7	U	1.7	U	--	1.8	U	1.8	U	--
Pesticides	Endrin Aldehyde	7421-93-4	8081B	µg/kg	1.7	U	1.7	U	--	1.8	U	1.8	U	--
Pesticides	Endrin Ketone	53494-70-5	8081B	µg/kg	1.8	U	1.8	U	--	1.9	U	1.9	U	--
Pesticides	Gamma-Bhc (Lindane)	58-89-9	8081B	µg/kg	0.83	U	0.84	U	--	0.88	U	0.87	U	--
Pesticides	Heptachlor	76-44-8	8081B	µg/kg	0.83	U	0.84	U	--	0.88	U	0.87	U	--
Pesticides	Heptachlor Epoxide	1024-57-3	8081B	µg/kg	0.83	U	0.84	U	--	0.88	U	0.87	U	--
Pesticides	Methoxychlor	72-43-5	8081B	µg/kg	6.7	U	6.8	U	--	7.1	U	7.0	U	--
Pesticides	Mirex	2385-85-5	8081B	µg/kg	1.7	U	1.7	U	--	1.8	U	1.8	U	--

Table C9 - Northern Buffer Zone - Field Duplicates

				Location	NBZ_DG-504		NBZ_DG-504		RPD	NBZ_DG-509		NBZ_DG-509		RPD
				Sample Name:	SL-804-NBZ-SB-0.0-0.5		SL-504-NBZ-SB-0.0-0.5			SL-809-NBZ-SB-2.5-3.5		SL-509-NBZ-SB-2.5-3.5		
				Sample Date	12/03/2013		12/03/2013			12/03/2013		12/03/2013		
				Start Depth:	0		0			2.5		2.5		
				End Depth:	0.5		0.5			3.5		3.5		
				Area:	NBZ_DG		NBZ_DG			NBZ_DG		NBZ_DG		
				Matrix:	SO		SO			SO		SO		
				Sample Type:	FD		N			FD		N		
Pesticides	Technical Toxaphene	8001-35-2	8081B	µg/kg	33	U	33	U	--	35	U	35	U	--
pH	pH	pH	9045M	pH					--	7.65		7.60		0.66
TPH-EFH	EFH (C8-C11)	PHCC8C11	8015M	mg/kg	5.1	U	5.1	U	--	5.3	U	5.2	U	--
TPH-EFH	EFH (C12-C14)	PHCC12C14	8015M	mg/kg	5.1	U	5.1	U	--	5.3	U	5.2	U	--
TPH-EFH	EFH (C15-C20)	PHCC15C20	8015M	mg/kg	5.1	U	5.1	U	--	5.3	U	5.2	U	--
TPH-EFH	EFH (C21-C30)	PHCC21C30	8015M	mg/kg	5.1	U	5.1	U	--	5.3	U	5.2	U	--
TPH-EFH	EFH (C30-C40)	PHCC30C40	8015M	mg/kg	10	U	10	U	--	11	U	10	U	--
TPH-GRO	Gasoline Range Organics (C5-C12)	GROC5C12	8015M	mg/kg					--	1.1	U	1.1	U	--

Notes:
ug/kg - microgram per kilogram
mg/kg - milligram per kilogram
ng/g - nanogram per kilogram
FD - field duplicate sample
N - normal sample
RPD - relative percent difference
SO - soil
-- - RPD not calculated when both field duplicate and normal samples were nondetect or only one sample result is reported
200* - When one result is nondetect a 200% RPD is given and sample results are qualified as estimated "J" or "UJ" in the field duplicate samples only
Limit - 50% - If RPD is above 50% detected field duplicate results only were estimated "J"

Table C9 - Northern Buffer Zone - Field Duplicates

				Location	NBZ_DG-524		NBZ_DG-524		RPD	NBZ_DG-525		NBZ_DG-525		RPD
				Sample Name:	SL-824-NBZ-SB-0.0-0.5		SL-524-NBZ-SB-0.0-0.5			SL-825-NBZ-SB-4.0-5.0		SL-525-NBZ-SB-4.0-5.0		
				Sample Date	12/09/2013		12/09/2013			12/05/2013		12/05/2013		
				Start Depth:	0		0			4		4		
				End Depth:	0.5		0.5			5		5		
				Area:	NBZ_DG		NBZ_DG			NBZ_DG		NBZ_DG		
				Matrix:	SO		SO			SO		SO		
				Sample Type:	FD		N			FD		N		
MAG:	Chemical Name:	CAS No.:	Lab Method:	Result Unit										
Cyanide	Cyanide	57-12-5	9012B	mg/kg					--					--
Dioxins	1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	35822-46-9	1613B	ng/kg					--					--
Dioxins	1,2,3,4,6,7,8-HPCDF	67562-39-4	1613B	ng/kg					--					--
Dioxins	1,2,3,4,7,8,9-HPCDF	55673-89-7	1613B	ng/kg					--					--
Dioxins	1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	39227-28-6	1613B	ng/kg					--					--
Dioxins	1,2,3,4,7,8-HXCDF	70648-26-9	1613B	ng/kg					--					--
Dioxins	1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	57653-85-7	1613B	ng/kg					--					--
Dioxins	1,2,3,6,7,8-HXCDF	57117-44-9	1613B	ng/kg					--					--
Dioxins	1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	19408-74-3	1613B	ng/kg					--					--
Dioxins	1,2,3,7,8,9-HXCDF	72918-21-9	1613B	ng/kg					--					--
Dioxins	1,2,3,7,8-Pentachlorodibenzofuran	57117-41-6	1613B	ng/kg					--					--
Dioxins	1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	40321-76-4	1613B	ng/kg					--					--
Dioxins	2,3,4,6,7,8-HXCDF	60851-34-5	1613B	ng/kg					--					--
Dioxins	2,3,4,7,8-PECDF	57117-31-4	1613B	ng/kg					--					--
Dioxins	2,3,7,8-TCDD	1746-01-6	1613B	ng/kg					--					--
Dioxins	2,3,7,8-Tetrachlorodibenzofuran	51207-31-9	1613B	ng/kg					--					--
Dioxins	OCDD	3268-87-9	1613B	ng/kg					--					--
Dioxins	OCDF	39001-02-0	1613B	ng/kg					--					--
Dioxins	TCDD TEQ	TCDD TEQ	1613B	ng/kg					--					--
Herbicides	2,2-Dichlor-Propionic Acid	75-99-0	8151A	µg/kg					--	92	U	200	U	--
Herbicides	2,4,5-T	93-76-5	8151A	µg/kg					--	1.7	U	1.7	U	--
Herbicides	2,4-D	94-75-7	8151A	µg/kg					--	37	U	37	U	--
Herbicides	2,4-DB	94-82-6	8151A	µg/kg					--	17	U	17	U	--
Herbicides	Dicamba	1918-00-9	8151A	µg/kg					--	12	U	12	U	--
Herbicides	Dichlorprop	120-36-5	8151A	µg/kg					--	17	U	17	U	--
Herbicides	Dinitrobutyl Phenol	88-85-7	8151A	µg/kg					--	25	U	24	U	--
Herbicides	MCPA	94-74-6	8151A	µg/kg					--	2600	U	2500	U	--
Herbicides	MCPP	93-65-2	8151A	µg/kg					--	2600	U	2500	U	--
Herbicides	Silvex (2,4,5-TP)	93-72-1	8151A	µg/kg					--	1.7	U	1.7	U	--
Mercury	Mercury	7439-97-6	7471B	mg/kg					--					--
Metals	Aluminum	7429-90-5	6010C	mg/kg					--					--
Metals	Antimony	7440-36-0	6010C	mg/kg					--					--
Metals	Arsenic	7440-38-2	6010C	mg/kg					--					--
Metals	Barium	7440-39-3	6010C	mg/kg					--					--
Metals	Beryllium	7440-41-7	6010C	mg/kg					--					--
Metals	Boron	7440-42-8	6010C	mg/kg					--					--
Metals	Cadmium	7440-43-9	6010C	mg/kg					--					--
Metals	Calcium	7440-70-2	6010C	mg/kg					--					--
Metals	Chromium	7440-47-3	6010C	mg/kg					--					--
Metals	Cobalt	7440-48-4	6010C	mg/kg					--					--
Metals	Copper	7440-50-8	6010C	mg/kg					--					--
Metals	Iron	7439-89-6	6010C	mg/kg					--					--
Metals	Lead	7439-92-1	6010C	mg/kg					--					--
Metals	Lithium	7439-93-2	6010C	mg/kg					--					--
Metals	Magnesium	7439-95-4	6010C	mg/kg					--					--
Metals	Manganese	7439-96-5	6010C	mg/kg					--					--
Metals	Molybdenum	7439-98-7	6010C	mg/kg					--					--
Metals	Nickel	7440-02-0	6010C	mg/kg					--					--
Metals	Phosphorus	7723-14-0	6010C	mg/kg					--					--
Metals	Potassium	7440-09-7	6010C	mg/kg					--					--
Metals	Selenium	7782-49-2	6020A	mg/kg					--					--
Metals	Silver	7440-22-4	6020A	mg/kg					--					--
Metals	Sodium	7440-23-5	6010C	mg/kg					--					--
Metals	Strontium	7440-24-6	6020A	mg/kg					--					--
Metals	Thallium	7440-28-0	6020A	mg/kg					--					--
Metals	Tin	7440-31-5	6010C	mg/kg					--					--
Metals	Titanium	7440-32-6	6010C	mg/kg					--					--
Metals	Vanadium	7440-62-2	6010C	mg/kg					--					--
Metals	Zinc	7440-66-6	6010C	mg/kg					--					--
Metals	Zirconium	7440-67-7	6010C	mg/kg					--					--
Moisture Content	Moisture	MOIST	160.3M	%	5.4		4.6		16.00	2.6		2.6		0.00
Nitrates	Nitrate	14797-55-8	300.0	mg/kg	5.8	J	0.70	J	156.92					--
PAHs	1-Methylnaphthalene	90-12-0	8270D SIM	µg/kg	1.2	J	1.7	UJ	200.00					--
PAHs	2-Methylnaphthalene	91-57-6	8270D SIM	µg/kg	1.4	J	0.87	J	46.70					--
PAHs	Acenaphthene	83-32-9	8270D SIM	µg/kg	1.8	U	1.7	U	--					--
PAHs	Acenaphthylene	208-96-8	8270D SIM	µg/kg	1.8	U	1.7	U	--					--
PAHs	Anthracene	120-12-7	8270D SIM	µg/kg	0.37	J	1.7	UJ	200.00					--
PAHs	Benzo(a)anthracene	56-55-3	8270D SIM	µg/kg	1.7	J	1.7	UJ	200.00					--
PAHs	Benzo(a)pyrene	50-32-8	8270D SIM	µg/kg	2.2	J	1.7	UJ	200.00					--
PAHs	Benzo(b)fluoranthene	205-99-2	8270D SIM	µg/kg	5.7	J	2.0	J	96.10					--
PAHs	Benzo(e)pyrene	192-97-2	8270D SIM	µg/kg	18	U	18	U	--					--
PAHs	Benzo(g,h,i)perylene	191-24-2	8270D SIM	µg/kg	1.6	J	1.7	UJ	200.00					--
PAHs	Benzo(k)fluoranthene	207-08-9	8270D SIM	µg/kg	1.7	J	1.7	UJ	200.00					--
PAHs	Bis(2-ethylhexyl)phthalate	117-81-7	8270D SIM	µg/kg	31	J	19	UJ	200.00					--
PAHs	Butylbenzylphthalate	85-68-7	8270D SIM	µg/kg	12	J	19	UJ	200.00					--
PAHs	Chrysene	218-01-9	8270D SIM	µg/kg	5.4	J	2.4	J	76.92					--
PAHs	Dibenzo(a,h)anthracene	53-70-3	8270D SIM	µg/kg	1.8	U	1.7	U	--					--
PAHs	Diethylphthalate	84-66-2	8270D SIM	µg/kg	19	U	19	U	--					--
PAHs	Dimethylphthalate	131-11-3	8270D SIM	µg/kg	19	U	19	U	--					--
PAHs	Di-n-butylphthalate	84-74-2	8270D SIM	µg/kg	19	U	19	U	--					--
PAHs	Di-n-octylphthalate	117-84-0	8270D SIM	µg/kg	19	U	19	U	--					--
PAHs	Fluoranthene	206-44-0	8270D SIM	µg/kg	4.1	J	1.3	J	103.70					--
PAHs	Fluorene	86-73-7	8270D SIM	µg/kg	0.97	J	1.7	UJ	200.00					--
PAHs	Indeno(1,2,3-cd)pyrene	193-39-5	8270D SIM	µg/kg	1.1	J	1.7	UJ	200.00					--
PAHs	Naphthalene	91-20-3	8270D SIM	µg/kg	2.3		1.7		30.00					--
PAHs	N-Nitrosodimethylamine	62-75-9	8270D SIM	µg/kg	1.8	U	1.7	U	--					--
PAHs	Phenanthrene	85-01-8	8270D SIM	µg/kg	3.3		2.1		44.44					--
PAHs	Pyrene	129-00-0	8270D SIM	µg/kg	4.7	J	1.4	J	108.20					--
PCBPCTs	Aroclor 1016	12674-11-2	8082A	µg/kg					--					--
PCBPCTs	Aroclor 1221	11104-28-2	8082A	µg/kg					--					--
PCBPCTs	Aroclor 1232	11141-16-5	8082A	µg/kg					--					--
PCBPCTs	Aroclor 1242	53469-21-9	8082A	µg/kg					--					--
PCBPCTs	Aroclor 1248	12672-29-6	8082A	µg/kg					--					--
PCBPCTs	Aroclor 1254	11097-69-1	8082A	µg/kg					--					--
PCBPCTs	Aroclor 1260	11096-82-5	8082A	µg/kg					--					--
PCBPCTs	Aroclor 1262	37324-23-5	8082A	µg/kg					--					--
PCBPCTs	Aroclor 1268	11100-14-4	8082A	µg/kg					--					--
PCBPCTs	Aroclor 5432	63496-31-1	8082A	µg/kg					--					--
PCBPCTs	Aroclor 5442	12642-23-8	8082A	µg/kg					--					--
PCBPCTs	Aroclor 5460	11126-42-4	8082A	µg/kg					--					--
Pesticides	4,4'-DDD	72-54-8	8081B	µg/kg					--					--
Pesticides	4,4'-DDE	72-55-9	8081B	µg/kg					--					--
Pesticides	4,4'-DDT	50-29-3	8081B	µg/kg					--					--
Pesticides	Aldrin	309-00-2	8081B	µg/kg					--					--
Pesticides	Alpha-Bhc	319-84-6	8081B	µg/kg					--					--
Pesticides	Beta-Bhc	319-85-7	8081B	µg/kg					--					--
Pesticides	Chlordane	57-74-9	8081B	µg/kg					--					--
Pesticides	Delta-Bhc	319-86-8	8081B	µg/kg					--					--
Pesticides	Dieldrin	60-57-1	8081B	µg/kg					--					--
Pesticides	Endosulfan I	959-98-8	8081B	µg/kg					--					--
Pesticides	Endosulfan II	33213-65-9	8081B	µg/kg					--					--
Pesticides	Endosulfan Sulfate	1031-07-8	8081B	µg/kg					--					--
Pesticides	Endrin	72-20-8	8081B	µg/kg					--					--
Pesticides	Endrin Aldehyde	7421-93-4	8081B	µg/kg					--					--
Pesticides	Endrin Ketone	53494-70-5	8081B	µg/kg					--					--
Pesticides	Gamma-Bhc (Lindane)	58-89-9	8081B	µg/kg					--					--
Pesticides	Heptachlor	76-44-8	8081B	µg/kg					--					--
Pesticides	Heptachlor Epoxide	1024-57-3	8081B	µg/kg					--					--
Pesticides	Methoxychlor	72-43-5	8081B	µg/kg					--					--
Pesticides	Mirex	2385-85-5	8081B	µg/kg					--					--

Table C9 - Northern Buffer Zone - Field Duplicates

				Location	NBZ_DG-524		NBZ_DG-524		RPD	NBZ_DG-525		NBZ_DG-525		RPD
				Sample Name:	SL-824-NBZ-SB-0.0-0.5		SL-524-NBZ-SB-0.0-0.5			SL-825-NBZ-SB-4.0-5.0		SL-525-NBZ-SB-4.0-5.0		
				Sample Date	12/09/2013		12/09/2013			12/05/2013		12/05/2013		
				Start Depth:	0		0			4		4		
				End Depth:	0.5		0.5			5		5		
				Area:	NBZ_DG		NBZ_DG			NBZ_DG		NBZ_DG		
				Matrix:	SO		SO			SO		SO		
				Sample Type:	FD		N			FD		N		
Pesticides	Technical Toxaphene	8001-35-2	8081B	µg/kg					--					--
pH	pH	pH	9045M	pH					--					--
TPH-EFH	EFH (C8-C11)	PHCC8C11	8015M	mg/kg	5.2	U	10	U	--	5.1	U	5.1	U	--
TPH-EFH	EFH (C12-C14)	PHCC12C14	8015M	mg/kg	5.2	U	10	U	--	5.1	U	5.1	U	--
TPH-EFH	EFH (C15-C20)	PHCC15C20	8015M	mg/kg	2.2	J	8.4	J	116.98	5.1	U	5.1	U	--
TPH-EFH	EFH (C21-C30)	PHCC21C30	8015M	mg/kg	28	J	58	J	69.77	5.1	U	5.1	U	--
TPH-EFH	EFH (C30-C40)	PHCC30C40	8015M	mg/kg	50	J	120	J	82.35	10	U	10	U	--
TPH-GRO	Gasoline Range Organics (C5-C12)	GROC5C12	8015M	mg/kg					--					--

Notes:
ug/kg - microgram per kilogram
mg/kg - milligram per kilogram
ng/g - nanogram per kilogram
FD - field duplicate sample
N - normal sample
RPD - relative percent difference
SO - soil
-- - RPD not calculated when both field duplicate and normal samples were nondetect or only one sample result is reported
200* - When one result is nondetect a 200% RPD is given and sample results are qualified as estimated "J" or "UJ" in the field duplicate samples only
Limit - 50% - If RPD is above 50% detected field duplicate results only were estimated "J"

Table C9 - Northern Buffer Zone - Field Duplicates

				Location	NBZ_DG-540		NBZ_DG-540		RPD	NBZ_DG-544		NBZ_DG-544		RPD
				Sample Name:	SL-840-NBZ-SB-0.0-0.5		SL-540-NBZ-SB-0.0-0.5			SL-844-NBZ-SB-0.0-0.5		SL-544-NBZ-SB-0.0-0.5		
				Sample Date	12/11/2013		12/11/2013			12/12/2013		12/12/2013		
				Start Depth:	0		0			0		0		
				End Depth:	0.5		0.5			0.5		0.5		
				Area:	NBZ_DG		NBZ_DG			NBZ_DG		NBZ_DG		
				Matrix:	SO		SO			SO		SO		
				Sample Type:	FD		N			FD		N		
MAG:	Chemical Name:	CAS No.:	Lab Method:	Result Unit										
Cyanide	Cyanide	57-12-5	9012B	mg/kg					--					--
Dioxins	1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	35822-46-9	1613B	ng/kg	90.2	J	36.2	J	85.44	3.20	J	4.41	J	31.80
Dioxins	1,2,3,4,6,7,8-HPCDF	67562-39-4	1613B	ng/kg	14.5	J	8.53	J	51.85	0.851	J	1.99	J	80.18
Dioxins	1,2,3,4,7,8,9-HPCDF	55673-89-7	1613B	ng/kg	1.18	J	0.654	J	57.36	4.96	UJ	4.96	UJ	--
Dioxins	1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	39227-28-6	1613B	ng/kg	0.665	J	0.350	J	62.07	0.157	J	0.133	J	16.55
Dioxins	1,2,3,4,7,8-HXCDF	70648-26-9	1613B	ng/kg	0.501	J	0.337	J	39.14	4.96	U	4.96	U	--
Dioxins	1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	57653-85-7	1613B	ng/kg	3.07	J	1.75	J	54.77	0.391	J	0.474	J	19.19
Dioxins	1,2,3,6,7,8-HXCDF	57117-44-9	1613B	ng/kg	0.563	J	0.490	J	13.87	0.220	J	0.214	J	2.76
Dioxins	1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	19408-74-3	1613B	ng/kg	1.18	J	0.583	J	67.73	0.472	J	0.429	J	9.54
Dioxins	1,2,3,7,8,9-HXCDF	72918-21-9	1613B	ng/kg	5.80	U	5.90	U	--	0.258	J	4.96	UJ	200.00
Dioxins	1,2,3,7,8-Pentachlorodibenzofuran	57117-41-6	1613B	ng/kg	1.21	J	0.785	J	42.61	0.288	J	4.96	U	200.00
Dioxins	1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	40321-76-4	1613B	ng/kg	0.215	J	5.90	U	200.00	0.328	J	0.126	J	88.99
Dioxins	2,3,4,6,7,8-HXCDF	60851-34-5	1613B	ng/kg	0.787	J	0.575	J	31.13	0.301	J	4.96	U	200.00
Dioxins	2,3,4,7,8-PECDF	57117-31-4	1613B	ng/kg	0.590	J	0.580	J	1.71	0.395	J	4.96	U	200.00
Dioxins	2,3,7,8-TCDD	1746-01-6	1613B	ng/kg	1.16	UJ	1.18	UJ	--	0.110	J	0.993	UJ	200.00
Dioxins	2,3,7,8-Tetrachlorodibenzofuran	51207-31-9	1613B	ng/kg	0.466	J	1.18	U	200.00	0.202	J	0.126	J	46.34
Dioxins	OCDD	3268-87-9	1613B	ng/kg	856	J	288	J	99.30	26.9		43.6		47.38
Dioxins	OCDF	39001-02-0	1613B	ng/kg	35.2		21.2		49.65	2.03	J	2.24	J	9.84
Dioxins	TCDD TEQ	TCDD TEQ	1613B	ng/kg	2.18		1.15		61.86	0.160		0.304		62.07
Herbicides	2,2-Dichlor-Propionic Acid	75-99-0	8151A	µg/kg	110	U	110	U	--					--
Herbicides	2,4,5-T	93-76-5	8151A	µg/kg	2.2	J	2.0	UJ	200.00					--
Herbicides	2,4-D	94-75-7	8151A	µg/kg	43	U	42	U	--					--
Herbicides	2,4-DB	94-82-6	8151A	µg/kg	20	U	20	U	--					--
Herbicides	Dicamba	1918-00-9	8151A	µg/kg	14	U	14	U	--					--
Herbicides	Dichlorprop	120-36-5	8151A	µg/kg	20	U	20	U	--					--
Herbicides	Dinitrobutyl Phenol	88-85-7	8151A	µg/kg	28	U	28	U	--					--
Herbicides	MCPA	94-74-6	8151A	µg/kg	3000	U	2900	U	--					--
Herbicides	MCPP	93-65-2	8151A	µg/kg	3000	U	2900	U	--					--
Herbicides	Silvex (2,4,5-TP)	93-72-1	8151A	µg/kg	2.0	UJ	0.98	J	200.00					--
Mercury	Mercury	7439-97-6	7471B	mg/kg					--	0.0096	J	0.0109	J	12.68
Metals	Aluminum	7429-90-5	6010C	mg/kg					--	9880		9680		2.04
Metals	Antimony	7440-36-0	6010C	mg/kg					--	1.22	J	3.99	UJ	200.00
Metals	Arsenic	7440-38-2	6010C	mg/kg					--	3.75	J	2.84	J	27.62
Metals	Barium	7440-39-3	6010C	mg/kg					--	63.9		65.1		1.86
Metals	Beryllium	7440-41-7	6010C	mg/kg					--	0.382	J	0.359	J	6.21
Metals	Boron	7440-42-8	6010C	mg/kg					--	4.20	J	8.30	J	65.60
Metals	Cadmium	7440-43-9	6010C	mg/kg					--	0.993	UJ	0.464	J	200.00
Metals	Calcium	7440-70-2	6010C	mg/kg					--	2070		2090		0.96
Metals	Chromium	7440-47-3	6010C	mg/kg					--	13.5		13.8		2.20
Metals	Cobalt	7440-48-4	6010C	mg/kg					--	4.20		4.46		6.00
Metals	Copper	7440-50-8	6010C	mg/kg					--	6.43	J	3.80	J	51.42
Metals	Iron	7439-89-6	6010C	mg/kg					--	17800		17600		1.13
Metals	Lead	7439-92-1	6010C	mg/kg					--	8.44		6.86		20.65
Metals	Lithium	7439-93-2	6010C	mg/kg					--	26.1		25.5		2.33
Metals	Magnesium	7439-95-4	6010C	mg/kg					--	3960		3920		1.02
Metals	Manganese	7439-96-5	6010C	mg/kg					--	273		276		1.09
Metals	Molybdenum	7439-98-7	6010C	mg/kg					--	1.99	U	2.00	U	--
Metals	Nickel	7440-02-0	6010C	mg/kg					--	7.68		8.13		5.69
Metals	Phosphorus	7723-14-0	6010C	mg/kg					--	321	J	385	J	18.13
Metals	Potassium	7440-09-7	6010C	mg/kg					--	2820		2770		1.79
Metals	Selenium	7782-49-2	6020A	mg/kg					--	0.459		0.284	J	47.11
Metals	Silver	7440-22-4	6020A	mg/kg					--	0.0450	J	0.0426	J	5.48
Metals	Sodium	7440-23-5	6010C	mg/kg					--	57.6	J	53.9	J	6.64
Metals	Strontium	7440-24-6	6020A	mg/kg					--	10.2		9.84		3.59
Metals	Thallium	7440-28-0	6020A	mg/kg					--	0.233		0.218		6.65
Metals	Tin	7440-31-5	6010C	mg/kg					--	9.93	U	9.98	U	--
Metals	Titanium	7440-32-6	6010C	mg/kg					--	959		871		9.62
Metals	Vanadium	7440-62-2	6010C	mg/kg					--	28.4		27.3		3.95
Metals	Zinc	7440-66-6	6010C	mg/kg					--	53.6		51.6		3.80
Metals	Zirconium	7440-67-7	6010C	mg/kg					--	4.96	UJ	0.877	J	200.00
Moisture Content	Moisture	MOIST	160.3M	%	15.3		15.2		0.66	2.2		3.7		50.85
Nitrates	Nitrate	14797-55-8	300.0	mg/kg					--					--
PAHs	1-Methylnaphthalene	90-12-0	8270D SIM	µg/kg	1.9	UJ	2.4	J	200.00	1.7	UJ	0.72	J	200.00
PAHs	2-Methylnaphthalene	91-57-6	8270D SIM	µg/kg	1.5	J	2.9	J	63.64	1.7	UJ	0.85	J	200.00
PAHs	Acenaphthene	83-32-9	8270D SIM	µg/kg	1.9	U	2.0	U	--	1.7	U	1.7	U	--
PAHs	Acenaphthylene	208-96-8	8270D SIM	µg/kg	1.9	U	2.0	U	--	1.7	U	1.7	U	--
PAHs	Anthracene	120-12-7	8270D SIM	µg/kg	0.46	J	0.53	J	14.14	1.7	U	1.7	U	--
PAHs	Benzo(a)anthracene	56-55-3	8270D SIM	µg/kg	1.2	J	1.2	J	0.00	1.7	UJ	1.2	J	200.00
PAHs	Benzo(a)pyrene	50-32-8	8270D SIM	µg/kg	1.4	J	1.5	J	6.90	1.7	UJ	1.2	J	200.00
PAHs	Benzo(b)fluoranthene	205-99-2	8270D SIM	µg/kg	3.3		3.7		11.43	0.73	J	2.5	J	109.60
PAHs	Benzo(e)pyrene	192-97-2	8270D SIM	µg/kg	20	U	20	U	--	17	U	17	U	--
PAHs	Benzo(g,h,i)perylene	191-24-2	8270D SIM	µg/kg	1.3	J	1.1	J	16.67	1.7	U	1.7	U	--
PAHs	Benzo(k)fluoranthene	207-08-9	8270D SIM	µg/kg	1.2	J	1.2	J	0.00	1.7	UJ	1.0	J	200.00
PAHs	Bis(2-ethylhexyl)phthalate	117-81-7	8270D SIM	µg/kg	13	J	15	J	14.29	18	U	18	U	--
PAHs	Butylbenzylphthalate	85-68-7	8270D SIM	µg/kg	21	U	21	U	--	18	U	18	U	--
PAHs	Chrysene	218-01-9	8270D SIM	µg/kg	3.3		3.5		5.88	0.81	J	2.1	J	88.66
PAHs	Dibenzo(a,h)anthracene	53-70-3	8270D SIM	µg/kg	1.9	U	2.0	U	--	1.7	U	1.7	U	--
PAHs	Diethylphthalate	84-66-2	8270D SIM	µg/kg	21	U	21	U	--	18	U	18	U	--
PAHs	Dimethylphthalate	131-11-3	8270D SIM	µg/kg	21	U	21	U	--	18	U	18	U	--
PAHs	Di-n-butylphthalate	84-74-2	8270D SIM	µg/kg	21	U	21	U	--	18	U	18	U	--
PAHs	Di-n-octylphthalate	117-84-0	8270D SIM	µg/kg	21	U	21	U	--	18	U	18	U	--
PAHs	Fluoranthene	206-44-0	8270D SIM	µg/kg	3.1		2.9		6.67	1.7	UJ	2.1	J	200.00
PAHs	Fluorene	86-73-7	8270D SIM	µg/kg	5.5	J	2.0	UJ	200.00	1.7	U	1.7	U	--
PAHs	Indeno(1,2,3-cd)pyrene	193-39-5	8270D SIM	µg/kg	0.85	J	2.0	UJ	200.00	1.7	U	1.7	U	--
PAHs	Naphthalene	91-20-3	8270D SIM	µg/kg	3.8		5.3		32.97	1.1	J	1.7		42.86
PAHs	N-Nitrosodimethylamine	62-75-9	8270D SIM	µg/kg	1.9	U	2.0	U	--	1.7	U	1.7	U	--
PAHs	Phenanthrene	85-01-8	8270D SIM	µg/kg	2.9		2.9		0.00	0.80	J	1.5	J	60.87
PAHs	Pyrene	129-00-0	8270D SIM	µg/kg	2.8		3.2		13.33	0.67	J	2.0	J	99.63
PCBPCTs	Aroclor 1016	12674-11-2	8082A	µg/kg					--					--
PCBPCTs	Aroclor 1221	11104-28-2	8082A	µg/kg					--					--
PCBPCTs	Aroclor 1232	11141-16-5	8082A	µg/kg					--					--
PCBPCTs	Aroclor 1242	53469-21-9	8082A	µg/kg					--					--
PCBPCTs	Aroclor 1248	12672-29-6	8082A	µg/kg					--					--
PCBPCTs	Aroclor 1254	11097-69-1	8082A	µg/kg					--					--
PCBPCTs	Aroclor 1260	11096-82-5	8082A	µg/kg					--					--
PCBPCTs	Aroclor 1262	37324-23-5	8082A	µg/kg					--					--
PCBPCTs	Aroclor 1268	11100-14-4	8082A	µg/kg					--					--
PCBPCTs	Aroclor 5432	63496-31-1	8082A	µg/kg					--					--
PCBPCTs	Aroclor 5442	12642-23-8	8082A	µg/kg					--					--
PCBPCTs	Aroclor 5460	11126-42-4	8082A	µg/kg					--					--
Pesticides	4,4'-DDD	72-54-8	8081B	µg/kg	2.0	U	2.0	U	--	1.7	U	1.8	U	--
Pesticides	4,4'-DDE	72-55-9	8081B	µg/kg	2.0	U	2.0	U	--	0.40	J	0.64	J	46.15
Pesticides	4,4'-DDT	50-29-3	8081B	µg/kg	1.3	J	2.0		42.42	0.49	J	0.90	J	58.99
Pesticides	Aldrin	309-00-2	8081B	µg/kg	0.97	U	0.97	U	--	0.85	U	0.86	U	--
Pesticides	Alpha-Bhc	319-84-6	8081B	µg/kg	0.97	U	0.97	U	--	0.85	U	0.86	U	--
Pesticides	Beta-Bhc	319-85-7	8081B	µg/kg	2.2	U	2.2	U	--	1.9	U	2.0	U	--
Pesticides	Chlordane	57-74-9	8081B	µg/kg	20	U	20	U	--	17	U	18	U	--
Pesticides	Delta-Bhc	319-86-8	8081B	µg/kg	0.97	U	0.97	U	--	0.85	U	0.86	U	--
Pesticides	Dieldrin	60-57-1	8081B	µg/kg	2.0	UJ	0.56	J	200.00	1.7	U	1.8	U	--
Pesticides	Endosulfan I	959-98-8	8081B	µg/kg	0.97	U	0.97	U	--	0.85	U	0.86	U	--
Pesticides	Endosulfan II	33213-65-9	8081B	µg/kg	2.0	U	2.0	U	--	1.7	U	1.8	U	--
Pesticides	Endosulfan Sulfate	1031-07-8	8081B	µg/kg	2.0	U	2.0	U	--	1.7	U	1.8	U	--
Pesticides	Endrin	72-20-8	8081B	µg/kg	2.0	UJ	0.46	J	200.00	1.7	U	1.8	U	--
Pesticides	Endrin Aldehyde	7421-93-4	8081B	µg/kg	2.0	U	2.0	U	--	1.7	U	1.8	U	--
Pesticides	Endrin Ketone	53494-70-5	8081B	µg/kg	2.1	U	2.1	U	--	1.8	U	1.9	U	--
Pesticides	Gamma-Bhc (Lindane)	58-89-9	8081B	µg/kg	0.97	U	0.97	U	--	0.85	U	0.86	U	--
Pesticides	Heptachlor	76-44-8	8081B	µg/kg	0.29	J	0.54	J	60.24	0.85	U	0.86	U	--
Pesticides	Heptachlor Epoxide	1024-57-3	8081B	µg/kg	0.97	U	0.97	U	--	0.85	U	0.86	U	--
Pesticides	Methoxychlor	72-43-5	8081B	µg/kg	7.9	U	7.8	U	--	6.9	U	7.0	U	--
Pesticides	Mirex	2385-85-5	8081B	µg/kg	2.0	U	2.0	U	--	1.7	U	1.8	U	--

Table C9 - Northern Buffer Zone - Field Duplicates

				Location	NBZ_DG-540		NBZ_DG-540		RPD	NBZ_DG-544		NBZ_DG-544		RPD
				Sample Name:	SL-840-NBZ-SB-0.0-0.5		SL-540-NBZ-SB-0.0-0.5			SL-844-NBZ-SB-0.0-0.5		SL-544-NBZ-SB-0.0-0.5		
				Sample Date	12/11/2013		12/11/2013			12/12/2013		12/12/2013		
				Start Depth:	0		0			0		0		
				End Depth:	0.5		0.5			0.5		0.5		
				Area:	NBZ_DG		NBZ_DG			NBZ_DG		NBZ_DG		
				Matrix:	SO		SO			SO		SO		
				Sample Type:	FD		N			FD		N		
Pesticides	Technical Toxaphene	8001-35-2	8081B	µg/kg	39	U	39	U	--	34	U	34	U	--
pH	pH	pH	9045M	pH					--	6.41		6.47		0.93
TPH-EFH	EFH (C8-C11)	PHCC8C11	8015M	mg/kg					--	5.1	U	5.1	U	--
TPH-EFH	EFH (C12-C14)	PHCC12C14	8015M	mg/kg					--	5.1	U	5.1	U	--
TPH-EFH	EFH (C15-C20)	PHCC15C20	8015M	mg/kg					--	5.1	U	5.1	U	--
TPH-EFH	EFH (C21-C30)	PHCC21C30	8015M	mg/kg					--	6.8	J	15	J	75.23
TPH-EFH	EFH (C30-C40)	PHCC30C40	8015M	mg/kg					--	20		30	J	40.00
TPH-GRO	Gasoline Range Organics (C5-C12)	GROC5C12	8015M	mg/kg					--					--

Notes:
ug/kg - microgram per kilogram
mg/kg - milligram per kilogram
ng/g - nanogram per kilogram
FD - field duplicate sample
N - normal sample
RPD - relative percent difference
SO - soil
-- - RPD not calculated when both field duplicate and normal samples were nondetect or only one sample result is reported
200* - When one result is nondetect a 200% RPD is given and sample results are qualified as estimated "J" or "UJ" in the field duplicate samples only
Limit - 50% - If RPD is above 50% detected field duplicate results only were estimated "J"

Table C9 - Northern Buffer Zone - Field Duplicates

				Location	NBZ_DG-545		NBZ_DG-545		RPD
				Sample Name:	SL-845-NBZ-SB-0.0-0.5		SL-545-NBZ-SB-0.0-0.5		
				Sample Date	12/04/2013		12/04/2013		
				Start Depth:	0		0		
				End Depth:	0.5		0.5		
				Area:	NBZ_DG		NBZ_DG		
				Matrix:	SO		SO		
				Sample Type:	FD		N		
MAG:	Chemical Name:	CAS No.:	Lab Method:	Result Unit					
Cyanide	Cyanide	57-12-5	9012B	mg/kg	0.53	U	0.52	U	--
Dioxins	1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	35822-46-9	1613B	ng/kg	13.2		17.3		26.89
Dioxins	1,2,3,4,6,7,8-HPCDF	67562-39-4	1613B	ng/kg	4.26	J	3.75	J	12.73
Dioxins	1,2,3,4,7,8,9-HPCDF	55673-89-7	1613B	ng/kg	5.27	U	5.17	U	--
Dioxins	1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	39227-28-6	1613B	ng/kg	5.27	U	5.17	U	--
Dioxins	1,2,3,4,7,8-HXCDF	70648-26-9	1613B	ng/kg	5.27	U	5.17	U	--
Dioxins	1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	57653-85-7	1613B	ng/kg	1.10	J	1.04	J	5.61
Dioxins	1,2,3,6,7,8-HXCDF	57117-44-9	1613B	ng/kg	5.27	U	5.17	U	--
Dioxins	1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	19408-74-3	1613B	ng/kg	5.27	U	5.17	U	--
Dioxins	1,2,3,7,8,9-HXCDF	72918-21-9	1613B	ng/kg	5.27	UJ	5.17	UJ	--
Dioxins	1,2,3,7,8-Pentachlorodibenzofuran	57117-41-6	1613B	ng/kg	1.13	J	5.17	U	200.00
Dioxins	1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	40321-76-4	1613B	ng/kg	5.27	UJ	5.17	UJ	--
Dioxins	2,3,4,6,7,8-HXCDF	60851-34-5	1613B	ng/kg	5.27	U	5.17	U	--
Dioxins	2,3,4,7,8-PECDF	57117-31-4	1613B	ng/kg	5.27	U	5.17	U	--
Dioxins	2,3,7,8-TCDD	1746-01-6	1613B	ng/kg	1.05	U	1.03	U	--
Dioxins	2,3,7,8-Tetrachlorodibenzofuran	51207-31-9	1613B	ng/kg	0.487	J	0.622	J	24.35
Dioxins	OCDD	3268-87-9	1613B	ng/kg	106		142		29.03
Dioxins	OCDF	39001-02-0	1613B	ng/kg	8.17	J	8.97	J	9.33
Dioxins	TCDD TEQ	TCDD TEQ	1613B	ng/kg	0.997		1.01		1.30
Herbicides	2,2-Dichlor-Propionic Acid	75-99-0	8151A	µg/kg					--
Herbicides	2,4,5-T	93-76-5	8151A	µg/kg					--
Herbicides	2,4-D	94-75-7	8151A	µg/kg					--
Herbicides	2,4-DB	94-82-6	8151A	µg/kg					--
Herbicides	Dicamba	1918-00-9	8151A	µg/kg					--
Herbicides	Dichlorprop	120-36-5	8151A	µg/kg					--
Herbicides	Dinitrobutyl Phenol	88-85-7	8151A	µg/kg					--
Herbicides	MCPA	94-74-6	8151A	µg/kg					--
Herbicides	MCPP	93-65-2	8151A	µg/kg					--
Herbicides	Silvex (2,4,5-TP)	93-72-1	8151A	µg/kg					--
Mercury	Mercury	7439-97-6	7471B	mg/kg	0.284		0.182		43.78
Metals	Aluminum	7429-90-5	6010C	mg/kg	11800		12100		2.51
Metals	Antimony	7440-36-0	6010C	mg/kg	4.15	UJ	4.24	UJ	--
Metals	Arsenic	7440-38-2	6010C	mg/kg	2.90	J	3.24	J	11.07
Metals	Barium	7440-39-3	6010C	mg/kg	77.1		71.5		7.54
Metals	Beryllium	7440-41-7	6010C	mg/kg	0.466	J	0.477	J	2.33
Metals	Boron	7440-42-8	6010C	mg/kg	5.57	J	4.79	J	15.06
Metals	Cadmium	7440-43-9	6010C	mg/kg	0.466	J	0.447	J	4.16
Metals	Calcium	7440-70-2	6010C	mg/kg	5200		5070		2.53
Metals	Chromium	7440-47-3	6010C	mg/kg	17.7		16.7		5.81
Metals	Cobalt	7440-48-4	6010C	mg/kg	4.62		4.80		3.82
Metals	Copper	7440-50-8	6010C	mg/kg	4.80		4.81		0.21
Metals	Iron	7439-89-6	6010C	mg/kg	18000		18500		2.74
Metals	Lead	7439-92-1	6010C	mg/kg	15.1		14.8		2.01
Metals	Lithium	7439-93-2	6010C	mg/kg	22.0		22.7		3.13
Metals	Magnesium	7439-95-4	6010C	mg/kg	4070		4240		4.09
Metals	Manganese	7439-96-5	6010C	mg/kg	273		283		3.60
Metals	Molybdenum	7439-98-7	6010C	mg/kg	2.08	UJ	2.12	UJ	--
Metals	Nickel	7440-02-0	6010C	mg/kg	10.3		10.7		3.81
Metals	Phosphorus	7723-14-0	6010C	mg/kg	372		431		14.69
Metals	Potassium	7440-09-7	6010C	mg/kg	3070		3490		12.80
Metals	Selenium	7782-49-2	6020A	mg/kg	0.189	J	0.203	J	7.14
Metals	Silver	7440-22-4	6020A	mg/kg	0.233		0.201	J	14.75
Metals	Sodium	7440-23-5	6010C	mg/kg	92.1	J	78.3	J	16.20
Metals	Strontium	7440-24-6	6020A	mg/kg	29.2	J	25.3	J	14.31
Metals	Thallium	7440-28-0	6020A	mg/kg	0.208	U	0.213		200.00
Metals	Tin	7440-31-5	6010C	mg/kg	10.4	U	10.6	U	--
Metals	Titanium	7440-32-6	6010C	mg/kg	1010		1010		0.00
Metals	Vanadium	7440-62-2	6010C	mg/kg	29.6		31.2		5.26
Metals	Zinc	7440-66-6	6010C	mg/kg	63.6		57.2		10.60
Metals	Zirconium	7440-67-7	6010C	mg/kg	2.00	J	1.66	J	18.58
Moisture Content	Moisture	MOIST	160.3M	%	5.6		7.5		29.01
Nitrates	Nitrate	14797-55-8	300.0	mg/kg					--
PAHs	1-Methylnaphthalene	90-12-0	8270D SIM	µg/kg	18	U	18	U	--
PAHs	2-Methylnaphthalene	91-57-6	8270D SIM	µg/kg	18	U	18	U	--
PAHs	Acenaphthene	83-32-9	8270D SIM	µg/kg	18	U	18	U	--
PAHs	Acenaphthylene	208-96-8	8270D SIM	µg/kg	18	U	18	U	--
PAHs	Anthracene	120-12-7	8270D SIM	µg/kg	18	U	18	U	--
PAHs	Benzo(a)anthracene	56-55-3	8270D SIM	µg/kg	18	U	18	U	--
PAHs	Benzo(a)pyrene	50-32-8	8270D SIM	µg/kg	18	U	18	U	--
PAHs	Benzo(b)fluoranthene	205-99-2	8270D SIM	µg/kg	18	UJ	15	J	200.00
PAHs	Benzo(e)pyrene	192-97-2	8270D SIM	µg/kg	180	U	180	U	--
PAHs	Benzo(g,h,i)perylene	191-24-2	8270D SIM	µg/kg	18	U	18	U	--
PAHs	Benzo(k)fluoranthene	207-08-9	8270D SIM	µg/kg	18	U	18	U	--
PAHs	Bis(2-ethylhexyl)phthalate	117-81-7	8270D SIM	µg/kg	190	U	190	U	--
PAHs	Butylbenzylphthalate	85-68-7	8270D SIM	µg/kg	190	U	190	U	--
PAHs	Chrysene	218-01-9	8270D SIM	µg/kg	6.9	J	20	J	97.40
PAHs	Dibenzo(a,h)anthracene	53-70-3	8270D SIM	µg/kg	18	U	18	U	--
PAHs	Diethylphthalate	84-66-2	8270D SIM	µg/kg	190	U	190	U	--
PAHs	Dimethylphthalate	131-11-3	8270D SIM	µg/kg	190	U	190	U	--
PAHs	Di-n-butylphthalate	84-74-2	8270D SIM	µg/kg	190	U	190	U	--
PAHs	Di-n-octylphthalate	117-84-0	8270D SIM	µg/kg	190	U	190	U	--
PAHs	Fluoranthene	206-44-0	8270D SIM	µg/kg	18	U	18	U	--
PAHs	Fluorene	86-73-7	8270D SIM	µg/kg	18	U	18	U	--
PAHs	Indeno(1,2,3-cd)pyrene	193-39-5	8270D SIM	µg/kg	18	U	18	U	--
PAHs	Naphthalene	91-20-3	8270D SIM	µg/kg	18	UJ	12	J	200.00
PAHs	N-Nitrosodimethylamine	62-75-9	8270D SIM	µg/kg	18	U	18	U	--
PAHs	Phenanthrene	85-01-8	8270D SIM	µg/kg	18	U	18	U	--
PAHs	Pyrene	129-00-0	8270D SIM	µg/kg	18	U	18	U	--
PCBPCTs	Aroclor 1016	12674-11-2	8082A	µg/kg	18	U	18	U	--
PCBPCTs	Aroclor 1221	11104-28-2	8082A	µg/kg	18	U	18	U	--
PCBPCTs	Aroclor 1232	11141-16-5	8082A	µg/kg	18	U	18	U	--
PCBPCTs	Aroclor 1242	53469-21-9	8082A	µg/kg	18	U	18	U	--
PCBPCTs	Aroclor 1248	12672-29-6	8082A	µg/kg	18	U	18	U	--
PCBPCTs	Aroclor 1254	11097-69-1	8082A	µg/kg	18	U	18	U	--
PCBPCTs	Aroclor 1260	11096-82-5	8082A	µg/kg	18	U	18	U	--
PCBPCTs	Aroclor 1262	37324-23-5	8082A	µg/kg	18	U	18	U	--
PCBPCTs	Aroclor 1268	11100-14-4	8082A	µg/kg	18	U	18	U	--
PCBPCTs	Aroclor 5432	63496-31-1	8082A	µg/kg	35	U	36	U	--
PCBPCTs	Aroclor 5442	12642-23-8	8082A	µg/kg	35	U	36	U	--
PCBPCTs	Aroclor 5460	11126-42-4	8082A	µg/kg	35	U	36	U	--
Pesticides	4,4'-DDD	72-54-8	8081B	µg/kg					--
Pesticides	4,4'-DDE	72-55-9	8081B	µg/kg					--
Pesticides	4,4'-DDT	50-29-3	8081B	µg/kg					--
Pesticides	Aldrin	309-00-2	8081B	µg/kg					--
Pesticides	Alpha-Bhc	319-84-6	8081B	µg/kg					--
Pesticides	Beta-Bhc	319-85-7	8081B	µg/kg					--
Pesticides	Chlordane	57-74-9	8081B	µg/kg					--
Pesticides	Delta-Bhc	319-86-8	8081B	µg/kg					--
Pesticides	Dieldrin	60-57-1	8081B	µg/kg					--
Pesticides	Endosulfan I	959-98-8	8081B	µg/kg					--
Pesticides	Endosulfan II	33213-65-9	8081B	µg/kg					--
Pesticides	Endosulfan Sulfate	1031-07-8	8081B	µg/kg					--
Pesticides	Endrin	72-20-8	8081B	µg/kg					--
Pesticides	Endrin Aldehyde	7421-93-4	8081B	µg/kg					--
Pesticides	Endrin Ketone	53494-70-5	8081B	µg/kg					--
Pesticides	Gamma-Bhc (Lindane)	58-89-9	8081B	µg/kg					--
Pesticides	Heptachlor	76-44-8	8081B	µg/kg					--
Pesticides	Heptachlor Epoxide	1024-57-3	8081B	µg/kg					--
Pesticides	Methoxychlor	72-43-5	8081B	µg/kg					--
Pesticides	Mirex	2385-85-5	8081B	µg/kg					--

Table C9 - Northern Buffer Zone - Field Duplicates

				Location	NBZ_DG-545		NBZ_DG-545		RPD
				Sample Name:	SL-845-NBZ-SB-0.0-0.5		SL-545-NBZ-SB-0.0-0.5		
				Sample Date	12/04/2013		12/04/2013		
				Start Depth:	0		0		
				End Depth:	0.5		0.5		
				Area:	NBZ_DG		NBZ_DG		
				Matrix:	SO		SO		
				Sample Type:	FD		N		
Pesticides	Technical Toxaphene	8001-35-2	8081B	µg/kg					--
pH	pH	pH	9045M	pH	7.06		6.97		1.28
TPH-EFH	EFH (C8-C11)	PHCC8C11	8015M	mg/kg	26	U	27	U	--
TPH-EFH	EFH (C12-C14)	PHCC12C14	8015M	mg/kg	26	U	27	U	--
TPH-EFH	EFH (C15-C20)	PHCC15C20	8015M	mg/kg	33		35		5.88
TPH-EFH	EFH (C21-C30)	PHCC21C30	8015M	mg/kg	200		150		28.57
TPH-EFH	EFH (C30-C40)	PHCC30C40	8015M	mg/kg	460		370		21.69
TPH-GRO	Gasoline Range Organics (C5-C12)	GROC5C12	8015M	mg/kg					--

Notes:
ug/kg - microgram per kilogram
mg/kg - milligram per kilogram
ng/g - nanogram per kilogram
FD - field duplicate sample
N - normal sample
RPD - relative percent difference
SO - soil
-- - RPD not calculated when both field duplicate and normal samples were nondetect or only one sample result is reported
200* - When one result is nondetect a 200% RPD is given and sample results are qualified as estimated "J" or "UJ" in the field duplicate samples only
Limit - 50% - If RPD is above 50% detected field duplicate results only were estimated "J"

Table C10 – Subarea 7 – Summary of Data Completeness Following Data Validation

	Number of Analyte Detections Without Qualifiers	Number of Estimated Results	Number of Rejected Results	Number of Nondetect Results	Number of Estimated Nondetect Results	Total Analytes Detect and Nondetect	Percent of Analyte Results Judged Valid Versus Total Analyte Results Collected
Dioxins – 1613B	273	782	--	370	15	1,440	100
Metals - 6010C	1,165	593	--	260	36	2,054	100
Metals – 6020A	118	148	--	48	2	316	100
Hexavalent Chromium – 7199	--	1	--	--	--	1	100
Mercury – 7471B	28	32	--	19	1	79	100
TPH-EFH/GRO – 8015M	98	77	--	239	2	416	100
Pesticides – 8081B	3	11	1	173	1	189	99.47
PCB/PCTs – 8082A	11	30	--	953	38	1,032	100
SVOC SIM – 8270D SIM	326	403	--	1,317	8	2,054	100
Completeness Total for Phase 3 Subarea 3 Samples Collected and Judged Valid							**99.47**

Table C11 – Northern Buffer Zone – Summary of Data Completeness Following Data Validation

	Number of Analyte Detections Without Qualifiers	Number of Estimated Results	Number of Rejected Results	Number of Nondetect Results	Number of Estimated Nondetect Results	Total Analytes Detect and Nondetect	Percent of Analyte Results Judged Valid Versus Total Analyte Results Collected
Dioxins – 1613B	54	119	--	351	16	540	100
Nitrate - 300	--	4	--	--	--	4	100
Metals – 6010C	260	81	--	42	7	390	100
Metals – 6020A	26	29	--	5	--	60	100
Mercury – 7471B	4	7	--	4	--	15	100
Cyanide – 9012B	--	--	--	--	--	20	100
TPH-EFH/GRO – 8015M	65	39	--	172	--	276	100
Pesticides – 8081B	5	40	--	647	1	693	100
PCB/PCTs – 8082A	--	--	--	180	--	180	100
Herbicides – 8151A	3	7	--	89	1	100	100
SVOC SIM – 8270D SIM	73	156	--	695	12	936	100
Completeness Total for Phase 3 Subarea 6 Samples Collected and Judged Valid							**100**

Appendix C. Samples by SDG EQuIS for Phase 3 Subarea 7

Task Code	System Sample Code	Lab SDG	Matrix Code	Sample Date	Sample Source
7_DG	SL-539-SA7-SB-0.0-0.5	PH027	SO	4/8/2013	FIELD
7_DG	SL-540-SA7-SB-0.0-0.5	PH027	SO	4/9/2013	FIELD
7_DG	SL-542-SA7-SB-0.0-0.5	PH027	SO	4/9/2013	FIELD
7_DG	SL-544-SA7-SB-0.0-0.5	PH027	SO	4/9/2013	FIELD
7_DG	SL-546-SA7-SB-0.0-0.5	PH027	SO	4/9/2013	FIELD
7_DG	SL-840-SA7-SB-0.0-0.5	PH027	SO	4/9/2013	FIELD
7_DG	SL-547-SA7-SB-0.0-0.5	PH028	SO	4/9/2013	FIELD
7_DG	SL-548-SA7-SB-0.0-0.5	PH028	SO	4/10/2013	FIELD
7_DG	SL-549-SA7-SB-0.0-0.5	PH028	SO	4/10/2013	FIELD
7_DG	SL-551-SA7-SB-0.0-0.5	PH028	SO	4/10/2013	FIELD
7_DG	SL-551-SA7-SB-2.0-3.0	PH028	SO	4/10/2013	FIELD
7_DG	SL-552-SA7-SB-0.0-0.5	PH028	SO	4/10/2013	FIELD
	TB-041013	PH028	WQ	4/10/2013	FIELD
	EB-041113	PH029	WQ	4/11/2013	FIELD
	FB-041113	PH029	WQ	4/11/2013	FIELD
7_DG	SL-536-SA7-SB-0.0-0.5	PH029	SO	4/11/2013	FIELD
7_DG	SL-553-SA7-SB-0.0-0.5	PH029	SO	4/11/2013	FIELD
7_DG	SL-554-SA7-SB-0.0-0.5	PH029	SO	4/11/2013	FIELD
7_DG	SL-555-SA7-SB-0.0-0.5	PH029	SO	4/11/2013	FIELD
	EB-041213	PH030	WQ	4/12/2013	FIELD
7_DG	SL-534-SA7-SB-0.0-0.5	PH030	SO	4/12/2013	FIELD
7_DG	SL-535-SA7-SB-0.0-0.5	PH030	SO	4/12/2013	FIELD
7_DG	SL-535-SA7-SB-4.0-5.0	PH030	SO	4/12/2013	FIELD
7_DG	SL-535-SA7-SB-9.0-10.0	PH030	SO	4/12/2013	FIELD
7_DG	SL-536-SA7-SB-3.0-4.0	PH030	SO	4/12/2013	FIELD
7_DG	SL-836-SA7-SB-3.0-4.0	PH030	SO	4/12/2013	FIELD
	TB-041213	PH030	WQ	4/12/2013	FIELD
7_DG	SL-521-SA7-SB-0.0-0.5	PH031	SO	4/15/2013	FIELD
7_DG	SL-522-SA7-SB-0.0-0.5	PH031	SO	4/15/2013	FIELD
7_DG	SL-534-SA7-SB-5.5-6.5	PH031	SO	4/15/2013	FIELD
7_DG	SL-537-SA7-SB-0.0-0.5	PH031	SO	4/15/2013	FIELD
7_DG	SL-538-SA7-SB-0.0-0.5	PH031	SO	4/15/2013	FIELD
	TB-041513	PH031	WQ	4/15/2013	FIELD
	FB-041613	PH032	WQ	4/16/2013	FIELD
7_DG	SL-558-SA7-SB-0.0-0.5	PH032	SO	4/16/2013	FIELD
7_DG	SL-559-SA7-SB-0.0-0.5	PH032	SO	4/16/2013	FIELD
7_DG	SL-559-SA7-SB-2.0-3.0	PH032	SO	4/16/2013	FIELD
7_DG	SL-560-SA7-SB-0.0-0.5	PH032	SO	4/16/2013	FIELD
7_DG	SL-560-SA7-SB-3.0-4.0	PH032	SO	4/16/2013	FIELD
7_DG	SL-561-SA7-SB-0.0-0.5	PH032	SO	4/16/2013	FIELD
	TB-041613	PH032	WQ	4/16/2013	FIELD
7_DG	SL-500-SA7-SB-0.0-0.5	PH033	SO	4/17/2013	FIELD
7_DG	SL-501-SA7-SB-0.0-0.5	PH033	SO	4/17/2013	FIELD
7_DG	SL-502-SA7-SB-0.0-0.5	PH033	SO	4/17/2013	FIELD
7_DG	SL-505-SA7-SB-0.0-0.5	PH033	SO	4/17/2013	FIELD
7_DG	SL-557-SA7-SB-0.0-0.5	PH033	SO	4/17/2013	FIELD
7_DG	SL-558-SA7-SB-3.0-4.0	PH033	SO	4/17/2013	FIELD
	TB-041713	PH033	WQ	4/17/2013	FIELD
	EB-041813	PH034	WQ	4/18/2013	FIELD
7_DG	SL-530-SA7-SB-0.0-0.5	PH034	SO	4/18/2013	FIELD
7_DG	SL-531-SA7-SB-0.0-0.5	PH034	SO	4/18/2013	FIELD
7_DG	SL-532-SA7-SB-0.0-0.5	PH034	SO	4/18/2013	FIELD
7_DG	SL-533-SA7-SB-0.0-0.5	PH034	SO	4/18/2013	FIELD
	EB-041913	PH035	WQ	4/19/2013	FIELD
7_DG	SL-511-SA7-SB-0.0-0.5	PH035	SO	4/19/2013	FIELD
7_DG	SL-518-SA7-SB-0.0-0.5	PH035	SO	4/19/2013	FIELD
7_DG	SL-520-SA7-SB-0.0-0.5	PH035	SO	4/19/2013	FIELD
7_DG	SL-503-SA7-SB-0.0-0.5	PH036	SO	4/22/2013	FIELD
7_DG	SL-504-SA7-SB-0.0-0.5	PH036	SO	4/22/2013	FIELD
7_DG	SL-504-SA7-SB-4.0-5.0	PH036	SO	4/22/2013	FIELD
7_DG	SL-510-SA7-SB-0.0-0.5	PH036	SO	4/22/2013	FIELD
7_DG	SL-517-SA7-SB-0.0-0.5	PH036	SO	4/22/2013	FIELD
7_DG	SL-810-SA7-SB-0.0-0.5	PH036	SO	4/22/2013	FIELD
	TB-042213	PH036	WQ	4/22/2013	FIELD
7_DG	SL-512-SA7-SB-0.0-0.5	PH037	SO	4/23/2013	FIELD
7_DG	SL-525-SA7-SB-0.0-0.5	PH037	SO	4/23/2013	FIELD
7_DG	SL-526-SA7-SB-0.0-0.5	PH037	SO	4/23/2013	FIELD
7_DG	SL-526-SA7-SB-3.5-4.5	PH037	SO	4/23/2013	FIELD
	TB-042313	PH037	WQ	4/23/2013	FIELD
	EB-042413	PH038	WQ	4/24/2013	FIELD
7_DG	SL-525-SA7-SB-6.5-7.5	PH038	SO	4/24/2013	FIELD
7_DG	SL-527-SA7-SB-0.0-0.5	PH038	SO	4/24/2013	FIELD
7_DG	SL-527-SA7-SB-2.5-3.5	PH038	SO	4/24/2013	FIELD
7_DG	SL-528-SA7-SB-0.0-0.5	PH038	SO	4/24/2013	FIELD
7_DG	SL-529-SA7-SB-0.0-0.5	PH038	SO	4/24/2013	FIELD
	TB-042413	PH038	WQ	4/24/2013	FIELD
7_DG	SL-506-SA7-SB-0.0-0.5	PH039	SO	4/25/2013	FIELD
7_DG	SL-507-SA7-SB-0.0-0.5	PH039	SO	4/24/2013	FIELD
7_DG	SL-508-SA7-SB-0.0-0.5	PH039	SO	4/25/2013	FIELD
7_DG	SL-509-SA7-SB-0.0-0.5	PH039	SO	4/25/2013	FIELD
7_DG	SL-519-SA7-SB-0.0-0.5	PH039	SO	4/25/2013	FIELD
7_DG	SL-519-SA7-SB-2.0-3.0	PH039	SO	4/25/2013	FIELD
7_DG	SL-819-SA7-SB-0.0-0.5	PH039	SO	4/25/2013	FIELD
7_DG	SL-543A-SA7-SB-0.0-0.5	PH040	SO	4/25/2013	FIELD
7_DG	SL-543B-SA7-SB-0.0-0.5	PH040	SO	4/25/2013	FIELD
7_DG	SL-543C-SA7-SB-0.0-0.5	PH040	SO	4/25/2013	FIELD
7_DG	SL-543D-SA7-SB-0.0-0.5	PH040	SO	4/25/2013	FIELD
7_DG	SL-562-SA7-SB-0.0-0.5	PH040	SO	4/26/2013	FIELD
7_DG	SL-562-SA7-SB-2.0-3.0	PH040	SO	4/26/2013	FIELD
	TB-042613	PH040	WQ	4/26/2013	FIELD
	EB1-060313	PH045	WQ	6/3/2013	FIELD
	EB2-060313	PH045	WQ	6/3/2013	FIELD
7_DG	SL-525-SA7-SB-4.0-5.0	PH045	SO	6/3/2013	FIELD
7_DG	SL-525-SA7-SB-9.5-10.5	PH045	SO	6/3/2013	FIELD
7_DG	SL-526-SA7-SB-9.0-10.0	PH045	SO	6/3/2013	FIELD
7_DG	SL-532-SA7-SB-3.0-4.0	PH045	SO	6/3/2013	FIELD
7_DG	SL-533-SA7-SB-2.5-3.5	PH045	SO	6/3/2013	FIELD
	TB-060313	PH045	WQ	6/3/2013	FIELD
7_DG	SL-513-SA7-SB-0.0-0.5	PH046	SO	6/4/2013	FIELD
7_DG	SL-516-SA7-SB-0.0-0.5	PH046	SO	6/4/2013	FIELD
7_DG	SL-524-SA7-SB-0.0-0.5	PH046	SO	6/4/2013	FIELD
7_DG	SL-524-SA7-SB-1.0-2.0	PH046	SO	6/4/2013	FIELD
7_DG	SL-545A-SA7-SB-0.0-0.5	PH046	SO	6/3/2013	FIELD
7_DG	SL-545B-SA7-SB-0.0-0.5	PH046	SO	6/3/2013	FIELD
7_DG	SL-545C-SA7-SB-0.0-0.5	PH046	SO	6/3/2013	FIELD
7_DG	SL-913-SA7-SB-0.0-0.5	PH046	SO	6/4/2013	FIELD
7_DG	SL-924-SA7-SB-1.0-2.0	PH046	SO	6/4/2013	FIELD
	TB-060413	PH046	WQ	6/4/2013	FIELD
7_DG	SL-514-SA7-SB-0.0-0.5	PH049	SO	6/6/2013	FIELD
7_DG	SL-515-SA7-SB-0.0-0.5	PH049	SO	6/6/2013	FIELD
	EB2-100213	PH121	WQ	10/2/2013	FIELD
7_DG	SL-541-SA7-SB-0.0-0.5	PH121	SO	10/2/2013	FIELD
7_DG	SL-541-SA7-SB-2.0-3.0	PH121	SO	10/2/2013	FIELD
	TB2-100213	PH121	WQ	10/2/2013	FIELD

Appendix C. Samples by SDG for Phase 3 Northern Buffer Zone

Task Code	System Sample Code	Lab SDG	Matrix Code	Sample Date	Sample Source
	FB-041613	PH032	WQ	4/16/2013	FIELD
NBZ_DG	SL-502-NBZ-SB-0.0-0.5	PH138	SO	12/3/2013	FIELD
NBZ_DG	SL-502-NBZ-SB-4.0-5.0	PH138	SO	12/3/2013	FIELD
NBZ_DG	SL-503-NBZ-SB-0.0-0.5	PH138	SO	12/3/2013	FIELD
NBZ_DG	SL-503-NBZ-SB-2.0-3.0	PH138	SO	12/3/2013	FIELD
NBZ_DG	SL-504-NBZ-SB-0.0-0.5	PH138	SO	12/3/2013	FIELD
NBZ_DG	SL-509-NBZ-SB-0.0-0.5	PH138	SO	12/3/2013	FIELD
NBZ_DG	SL-509-NBZ-SB-2.5-3.5	PH138	SO	12/3/2013	FIELD
NBZ_DG	SL-510-NBZ-SB-0.0-0.5	PH138	SO	12/3/2013	FIELD
NBZ_DG	SL-510-NBZ-SB-4.0-5.0	PH138	SO	12/3/2013	FIELD
NBZ_DG	SL-530-NBZ-SB-0.0-0.5	PH138	SO	12/3/2013	FIELD
NBZ_DG	SL-531-NBZ-SB-0.0-0.5	PH138	SO	12/3/2013	FIELD
NBZ_DG	SL-532-NBZ-SB-0.0-0.5	PH138	SO	12/3/2013	FIELD
NBZ_DG	SL-533-NBZ-SB-0.0-0.5	PH138	SO	12/3/2013	FIELD
NBZ_DG	SL-804-NBZ-SB-0.0-0.5	PH138	SO	12/3/2013	FIELD
NBZ_DG	SL-809-NBZ-SB-2.5-3.5	PH138	SO	12/3/2013	FIELD
	TB-120313	PH138	WQ	12/3/2013	FIELD
NBZ_DG	SL-506-NBZ-SB-0.0-0.5	PH139	SO	12/4/2013	FIELD
NBZ_DG	SL-507-NBZ-SB-0.0-0.5	PH139	SO	12/4/2013	FIELD
NBZ_DG	SL-507-NBZ-SB-3.5-4.5	PH139	SO	12/4/2013	FIELD
NBZ_DG	SL-508-NBZ-SB-0.0-0.5	PH139	SO	12/4/2013	FIELD
NBZ_DG	SL-508-NBZ-SB-4.0-5.0	PH139	SO	12/4/2013	FIELD
NBZ_DG	SL-511-NBZ-SB-0.0-0.5	PH139	SO	12/4/2013	FIELD
NBZ_DG	SL-511-NBZ-SB-2.5-3.5	PH139	SO	12/4/2013	FIELD
NBZ_DG	SL-545-NBZ-SB-0.0-0.5	PH139	SO	12/4/2013	FIELD
NBZ_DG	SL-546-NBZ-SB-0.0-0.5	PH139	SO	12/4/2013	FIELD
NBZ_DG	SL-547-NBZ-SB-0.0-0.5	PH139	SO	12/4/2013	FIELD
NBZ_DG	SL-548-NBZ-SB-0.0-0.5	PH139	SO	12/4/2013	FIELD
NBZ_DG	SL-549-NBZ-SB-0.0-0.5	PH139	SO	12/4/2013	FIELD
NBZ_DG	SL-845-NBZ-SB-0.0-0.5	PH139	SO	12/4/2013	FIELD
	TB-120413	PH139	WQ	12/4/2013	FIELD
	EB1-120513	PH140	WQ	12/5/2013	FIELD
	EB2-120513	PH140	WQ	12/5/2013	FIELD
	EB3-120513	PH140	WQ	12/5/2013	FIELD
NBZ_DG	SL-525-NBZ-SB-0.0-0.5	PH140	SO	12/5/2013	FIELD
NBZ_DG	SL-525-NBZ-SB-4.0-5.0	PH140	SO	12/5/2013	FIELD
NBZ_DG	SL-526-NBZ-SB-0.0-0.5	PH140	SO	12/5/2013	FIELD
NBZ_DG	SL-526-NBZ-SB-2.5-3.5	PH140	SO	12/5/2013	FIELD
NBZ_DG	SL-527-NBZ-SB-0.0-0.5	PH140	SO	12/5/2013	FIELD
NBZ_DG	SL-528-NBZ-SB-0.0-0.5	PH140	SO	12/5/2013	FIELD
NBZ_DG	SL-529-NBZ-SB-0.0-0.5	PH140	SO	12/5/2013	FIELD
NBZ_DG	SL-825-NBZ-SB-4.0-5.0	PH140	SO	12/5/2013	FIELD
NBZ_DG	SL-501-NBZ-SB-0.0-0.5	PH141	SO	12/6/2013	FIELD
NBZ_DG	SL-512-NBZ-SB-0.0-0.5	PH141	SO	12/6/2013	FIELD
NBZ_DG	SL-534-NBZ-SB-0.0-0.5	PH141	SO	12/6/2013	FIELD
NBZ_DG	SL-535-NBZ-SB-0.0-0.5	PH141	SO	12/6/2013	FIELD
NBZ_DG	SL-537-NBZ-SB-0.0-0.5	PH141	SO	12/6/2013	FIELD
NBZ_DG	SL-538-NBZ-SB-0.0-0.5	PH141	SO	12/6/2013	FIELD
NBZ_DG	SL-556-NBZ-SB-0.0-0.5	PH141	SO	12/6/2013	FIELD
NBZ_DG	SL-556-NBZ-SB-4.0-5.0	PH141	SO	12/6/2013	FIELD
	TB-120613	PH141	WQ	12/6/2013	FIELD
NBZ_DG	SL-513-NBZ-SB-0.0-0.5	PH142	SO	12/9/2013	FIELD
NBZ_DG	SL-514-NBZ-SB-0.0-0.5	PH142	SO	12/9/2013	FIELD
NBZ_DG	SL-515-NBZ-SB-0.0-0.5	PH142	SO	12/9/2013	FIELD
NBZ_DG	SL-516-NBZ-SB-0.0-0.5	PH142	SO	12/9/2013	FIELD
NBZ_DG	SL-516-NBZ-SB-4.0-5.0	PH142	SO	12/9/2013	FIELD
NBZ_DG	SL-522-NBZ-SB-0.0-0.5	PH142	SO	12/9/2013	FIELD
NBZ_DG	SL-522-NBZ-SB-2.5-3.5	PH142	SO	12/9/2013	FIELD
NBZ_DG	SL-523-NBZ-SB-0.0-0.5	PH142	SO	12/9/2013	FIELD
NBZ_DG	SL-524-NBZ-SB-0.0-0.5	PH142	SO	12/9/2013	FIELD
NBZ_DG	SL-824-NBZ-SB-0.0-0.5	PH142	SO	12/9/2013	FIELD
	TB-120913	PH142	WQ	12/9/2013	FIELD
NBZ_DG	SL-553-NBZ-SB-0.0-0.5	PH143	SO	12/10/2013	FIELD
NBZ_DG	SL-554-NBZ-SB-0.0-0.5	PH143	SO	12/10/2013	FIELD
NBZ_DG	SL-555-NBZ-SB-0.0-0.5	PH143	SO	12/10/2013	FIELD
	EB1-121113	PH146	WQ	12/11/2013	FIELD
	EB2-121113	PH146	WQ	12/11/2013	FIELD
NBZ_DG	SL-552-NBZ-SB-0.0-0.5	PH146	SO	12/10/2013	FIELD
NBZ_DG	SL-552-NBZ-SB-2.0-3.0	PH146	SO	12/10/2013	FIELD
NBZ_DG	SL-539-NBZ-SB-0.0-0.5	PH148	SO	12/12/2013	FIELD
NBZ_DG	SL-540-NBZ-SB-0.0-0.5	PH148	SO	12/11/2013	FIELD
NBZ_DG	SL-541-NBZ-SB-0.0-0.5	PH148	SO	12/11/2013	FIELD
NBZ_DG	SL-542-NBZ-SB-0.0-0.5	PH148	SO	12/11/2013	FIELD
NBZ_DG	SL-543-NBZ-SB-0.0-0.5	PH148	SO	12/12/2013	FIELD
NBZ_DG	SL-544-NBZ-SB-0.0-0.5	PH148	SO	12/12/2013	FIELD
NBZ_DG	SL-840-NBZ-SB-0.0-0.5	PH148	SO	12/11/2013	FIELD
NBZ_DG	SL-844-NBZ-SB-0.0-0.5	PH148	SO	12/12/2013	FIELD
NBZ_DG	SL-505-NBZ-SB-0.0-0.5	PH151	SO	12/13/2013	FIELD
NBZ_DG	SL-521-NBZ-SB-0.0-0.5	PH151	SO	12/13/2013	FIELD
NBZ_DG	SL-557-NBZ-SB-0.0-0.5	PH151	SO	12/13/2013	FIELD
	EB2-121613	PH155	WQ	12/16/2013	FIELD
NBZ_DG	SL-517-NBZ-SB-0.0-0.5	PH155	SO	12/16/2013	FIELD
NBZ_DG	SL-517-NBZ-SB-2.0-3.0	PH155	SO	12/16/2013	FIELD
NBZ_DG	SL-518-NBZ-SB-0.0-0.5	PH155	SO	12/16/2013	FIELD
NBZ_DG	SL-519-NBZ-SB-0.0-0.5	PH155	SO	12/16/2013	FIELD
NBZ_DG	SL-520-NBZ-SB-0.0-0.5	PH155	SO	12/16/2013	FIELD
	TB2-121613	PH155	WQ	12/16/2013	FIELD
NBZ_DG	SL-551-NBZ-SB-0.0-0.5	PH157	SO	12/17/2013	FIELD

Laboratory Data Consultants, Inc.

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Phone 760.634.0437 **Web** www.lab-data.com **Fax** 760.634.0439

CDM
555 17th Street, Suite 1100
Denver, CO 80202
ATTN: Mrs. Cherie Zakowski

July 3, 2013

SUBJECT: Santa Susana Field Laboratory, Data Validation

Dear Mrs. Zakowski,

Enclosed is the final validation report for the fractions listed below. These SDGs were received on May 31, 2013.

LDC project# 29836:

SDG #	Fraction
PH027, PH028	Volatiles (EPA SW 846 Method 8260B)
PH029, PH030	1,4-Dioxane (EPA SW 846 Method 8260B-SIM)
PH031, PH032	Semivolatiles (EPA SW 846 Method 8270D)
PH033, PH034,	PAHs (EPA SW 846 Method 8270C-SIM)
PH035, PH036	Chlorinated Pesticides (EPA SW 846 Method 8081A)
PH037, PH038	PCBs (EPA SW 846 Method 8082)
PH039, PH040	Metals (EPA SW 846 Method 6010C/6020A/7471A/7470A)
	Herbicides (EPA SW 846 Method 8151A)
	Terphenyls (EPA SW 846 Method 8015B)
	TPH-G (EPA SW 846 Method 8015M)
	TPH-E (EPA SW 846 Method 8015M)
	Perchlorate (EPA SW 846 Method 6850)
	Glycols (EPA SW 846 Method 8015C)
	Alcohols (EPA SW 846 Method 8015C)
	Explosives (EPA SW 846 Method 8330A)
	Dioxins/Dibenzofurans (EPA Method 1613B)
	Formaldehyde (EPA SW 846 Method 8315A)
	Hexavalent Chromium (EPA Method 7199)
	Wet Chemistry (EPA SW 846 Method 9012B and EPA Method 300.0, 350.0, and 314.0)

The following deliverables are submitted under this report:

- Attachment I — Sample ID Cross Reference and Data Review Level
- Attachment II — Overall Data Qualification Summary
- Enclosure I — Level III ADR Outliers (including manual review outliers)
- Enclosure II — Level IV Validation Reports

The data validation was performed in accordance to the Quality Assurance Project Plan for Santa Susana Field Laboratory, RCRA Facility Investigation, Surficial Media Operable Unit (March 2009, Revision 4), USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008), Polychlorinated Dioxins/Dibenzofurans Data Review (September 2005), and for Inorganic Data Review (January 2010). Where specific guidance is not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience. The following items were evaluated during the review::

- Holding Times
- Sample Preservation
- Cooler Temperatures
- Initial Calibration (Level IV only)
- Continuing Calibration (Level IV only)
- Blanks
- Surrogates
- Matrix Spike/Matrix Spike Duplicates
- Laboratory Duplicates
- Laboratory Control Samples
- Internal Standards (Level IV only)
- ICP Serial Dilution (Manual Review)
- Detection and Quantitation Limits
- Field QC Samples

Please feel free to contact us if you have any questions.

Sincerely,

Shauna McKellar
Project Manager/Chemist

Attachment I

Sample ID Cross Reference and Data Review Level

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
08-Apr-2013	SL-539-SA7-SB-0.0-0.5	7016766	N	3050B	6010C	III
08-Apr-2013	SL-539-SA7-SB-0.0-0.5	7016766	N	3050B	6020A	III
08-Apr-2013	SL-539-SA7-SB-0.0-0.5	7016766	N	3546	8015M	III
08-Apr-2013	SL-539-SA7-SB-0.0-0.5	7016766	N	3546	8082A	III
08-Apr-2013	SL-539-SA7-SB-0.0-0.5	7016766	N	3546	8270D SIM	III
08-Apr-2013	SL-539-SA7-SB-0.0-0.5	7016766	N	METHOD	1613B	III
08-Apr-2013	SL-539-SA7-SB-0.0-0.5	7016766	N	METHOD	7471B	III
09-Apr-2013	SL-542-SA7-SB-0.0-0.5	7016767	N	3050B	6010C	III
09-Apr-2013	SL-542-SA7-SB-0.0-0.5	7016767	N	3050B	6020A	III
09-Apr-2013	SL-542-SA7-SB-0.0-0.5	7016767	N	3546	8015M	III
09-Apr-2013	SL-542-SA7-SB-0.0-0.5	7016767	N	3546	8082A	III
09-Apr-2013	SL-542-SA7-SB-0.0-0.5	7016767	N	3546	8270D SIM	III
09-Apr-2013	SL-542-SA7-SB-0.0-0.5	7016767	N	METHOD	1613B	III
09-Apr-2013	SL-542-SA7-SB-0.0-0.5	7016767	N	METHOD	7471B	III
09-Apr-2013	SL-540-SA7-SB-0.0-0.5	7016768	N	3050B	6010C	III
09-Apr-2013	SL-540-SA7-SB-0.0-0.5	7016768	N	3050B	6020A	III
09-Apr-2013	SL-540-SA7-SB-0.0-0.5	7016768	N	3060A	7199	IV
09-Apr-2013	SL-540-SA7-SB-0.0-0.5	7016768	N	3546	8015M	III
09-Apr-2013	SL-540-SA7-SB-0.0-0.5	7016768	N	3546	8082A	III
09-Apr-2013	SL-540-SA7-SB-0.0-0.5	7016768	N	3546	8270D SIM	III
09-Apr-2013	SL-540-SA7-SB-0.0-0.5	7016768	N	METHOD	1613B	III
09-Apr-2013	SL-540-SA7-SB-0.0-0.5	7016768	N	METHOD	7471B	III
09-Apr-2013	SL-540-SA7-SB-0.0-0.5	7016768	N	METHOD	8315A	IV
09-Apr-2013	SL-540-SA7-SB-0.0-0.5MS	7016769	MS	3050B	6010C	III
09-Apr-2013	SL-540-SA7-SB-0.0-0.5MS	7016769	MS	3050B	6020A	III
09-Apr-2013	SL-540-SA7-SB-0.0-0.5MS	7016769	MS	3546	8015M	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
09-Apr-2013	SL-540-SA7-SB-0.0-0.5MS	7016769	MS	3546	8082A	III
09-Apr-2013	SL-540-SA7-SB-0.0-0.5MS	7016769	MS	3546	8270D SIM	III
09-Apr-2013	SL-540-SA7-SB-0.0-0.5MS	7016769	MS	METHOD	1613B	III
09-Apr-2013	SL-540-SA7-SB-0.0-0.5MS	7016769	MS	METHOD	7471B	III
09-Apr-2013	SL-540-SA7-SB-0.0-0.5MS	7016769	MS	METHOD	8315A	IV
09-Apr-2013	SL-540-SA7-SB-0.0-0.5MSD	7016770	MSD	3050B	6010C	III
09-Apr-2013	SL-540-SA7-SB-0.0-0.5MSD	7016770	MSD	3050B	6020A	III
09-Apr-2013	SL-540-SA7-SB-0.0-0.5MSD	7016770	MSD	3546	8015M	III
09-Apr-2013	SL-540-SA7-SB-0.0-0.5MSD	7016770	MSD	3546	8082A	III
09-Apr-2013	SL-540-SA7-SB-0.0-0.5MSD	7016770	MSD	3546	8270D SIM	III
09-Apr-2013	SL-540-SA7-SB-0.0-0.5MSD	7016770	MSD	METHOD	1613B	III
09-Apr-2013	SL-540-SA7-SB-0.0-0.5MSD	7016770	MSD	METHOD	7471B	III
09-Apr-2013	SL-540-SA7-SB-0.0-0.5MSD	7016770	MSD	METHOD	8315A	IV
09-Apr-2013	SL-540-SA7-SB-0.0-0.5DUP	7016771	DUP	3050B	6010C	III
09-Apr-2013	SL-540-SA7-SB-0.0-0.5DUP	7016771	DUP	3050B	6020A	III
09-Apr-2013	SL-540-SA7-SB-0.0-0.5DUP	7016771	DUP	3060A	7199	IV
09-Apr-2013	SL-540-SA7-SB-0.0-0.5DUP	7016771	DUP	METHOD	7471B	III
09-Apr-2013	SL-540-SA7-SB-0.0-0.5MS	P016768R271701A	MS	3060A	7199	IV
09-Apr-2013	SL-840-SA7-SB-0.0-0.5	7016772	FD	3050B	6010C	III
09-Apr-2013	SL-840-SA7-SB-0.0-0.5	7016772	FD	3050B	6020A	III
09-Apr-2013	SL-840-SA7-SB-0.0-0.5	7016772	FD	3060A	7199	IV
09-Apr-2013	SL-840-SA7-SB-0.0-0.5	7016772	FD	3546	8015M	III
09-Apr-2013	SL-840-SA7-SB-0.0-0.5	7016772	FD	3546	8082A	III
09-Apr-2013	SL-840-SA7-SB-0.0-0.5	7016772	FD	3546	8270D SIM	III
09-Apr-2013	SL-840-SA7-SB-0.0-0.5	7016772	FD	METHOD	1613B	III
09-Apr-2013	SL-840-SA7-SB-0.0-0.5	7016772	FD	METHOD	7471B	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
09-Apr-2013	SL-840-SA7-SB-0.0-0.5	7016772	FD	METHOD	8315A	IV
09-Apr-2013	SL-544-SA7-SB-0.0-0.5	7016773	N	3050B	6010C	III
09-Apr-2013	SL-544-SA7-SB-0.0-0.5	7016773	N	3050B	6020A	III
09-Apr-2013	SL-544-SA7-SB-0.0-0.5	7016773	N	3546	8015M	III
09-Apr-2013	SL-544-SA7-SB-0.0-0.5	7016773	N	3546	8082A	III
09-Apr-2013	SL-544-SA7-SB-0.0-0.5	7016773	N	3546	8270D SIM	III
09-Apr-2013	SL-544-SA7-SB-0.0-0.5	7016773	N	METHOD	1613B	III
09-Apr-2013	SL-544-SA7-SB-0.0-0.5	7016773	N	METHOD	7471B	III
09-Apr-2013	SL-546-SA7-SB-0.0-0.5	7016774	N	METHOD	1613B	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Attachment II

Overall Data Qualification Summary

Data Qualifier Summary

Lab Reporting Batch ID: PH027 **Laboratory: LL**

EDD Filename: PrepPH027_v1 **eQAPP Name: CDM_SSFL_130621_Lan**

Method Category: **METALS**

Method: **6010C** ***Matrix:*** **SO**

Sample ID: **SL-539-SA7-SB-0.0-0.5** ***Collected:*** **4/8/2013 12:45:00** ***Analysis Type:*** **REA/TOT** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	4.32	J	0.850	MDL	10.2	PQL	mg/Kg	J	Z

Sample ID: **SL-539-SA7-SB-0.0-0.5** ***Collected:*** **4/8/2013 12:45:00** ***Analysis Type:*** **RES/TOT** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	4.10	U	0.512	MDL	4.10	PQL	mg/Kg	UJ	Q
BERYLLIUM	0.480	J	0.0686	MDL	1.02	PQL	mg/Kg	J	Z
CADMIUM	0.161	J	0.0338	MDL	1.02	PQL	mg/Kg	J	Z
CALCIUM	3360		4.12	MDL	20.5	PQL	mg/Kg	J	E
PHOSPHORUS	396		0.523	MDL	10.2	PQL	mg/Kg	J	Q, Q
POTASSIUM	3290		13.8	MDL	102	PQL	mg/Kg	J	Q
SODIUM	66.5	J	17.1	MDL	102	PQL	mg/Kg	J	Z
TIN	2.66	J	0.225	MDL	10.2	PQL	mg/Kg	U	B

Sample ID: **SL-540-SA7-SB-0.0-0.5** ***Collected:*** **4/9/2013 10:10:00** ***Analysis Type:*** **RES/TOT** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	4.10	U	0.512	MDL	4.10	PQL	mg/Kg	UJ	Q
BERYLLIUM	0.556	J	0.0686	MDL	1.02	PQL	mg/Kg	J	Z
CADMIUM	0.0727	J	0.0338	MDL	1.02	PQL	mg/Kg	J	Z
CALCIUM	3100		4.12	MDL	20.5	PQL	mg/Kg	J	E
MOLYBDENUM	0.672	J	0.174	MDL	2.05	PQL	mg/Kg	UJ	FD, B, F, F
PHOSPHORUS	399		0.522	MDL	10.2	PQL	mg/Kg	J	Q, Q
POTASSIUM	3560		13.8	MDL	102	PQL	mg/Kg	J	Q
SODIUM	69.3	J	17.1	MDL	102	PQL	mg/Kg	J	Z
TIN	2.76	J	0.225	MDL	10.2	PQL	mg/Kg	U	B
Zirconium	0.921	J	0.850	MDL	5.12	PQL	mg/Kg	J	Z, FD

Sample ID: **SL-542-SA7-SB-0.0-0.5** ***Collected:*** **4/9/2013 8:40:00 AM** ***Analysis Type:*** **RES/TOT** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	4.08	U	0.510	MDL	4.08	PQL	mg/Kg	UJ	Q
BERYLLIUM	0.527	J	0.0684	MDL	1.02	PQL	mg/Kg	J	Z
CADMIUM	0.118	J	0.0337	MDL	1.02	PQL	mg/Kg	J	Z
CALCIUM	3600		4.10	MDL	20.4	PQL	mg/Kg	J	E

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3 Subarea 7

Data Qualifier Summary

Lab Reporting Batch ID: PH027 **Laboratory: LL**

EDD Filename: PrepPH027_v1 **eQAPP Name: CDM_SSFL_130621_Lan**

Method Category: **METALS**

Method: **6010C** ***Matrix:*** **SO**

Sample ID: **SL-542-SA7-SB-0.0-0.5** ***Collected:*** **4/9/2013 8:40:00 AM** ***Analysis Type:*** **RES/TOT** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
PHOSPHORUS	369		0.520	MDL	10.2	PQL	mg/Kg	J	Q, Q
POTASSIUM	2560		13.8	MDL	102	PQL	mg/Kg	J	Q
SODIUM	71.7	J	17.0	MDL	102	PQL	mg/Kg	J	Z
TIN	2.51	J	0.224	MDL	10.2	PQL	mg/Kg	U	B

Sample ID: **SL-544-SA7-SB-0.0-0.5** ***Collected:*** **4/9/2013 1:05:00 PM** ***Analysis Type:*** **RES/TOT** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	3.94	U	0.492	MDL	3.94	PQL	mg/Kg	UJ	Q
ARSENIC	3.40	J	0.325	MDL	3.94	PQL	mg/Kg	J	Z
BERYLLIUM	0.465	J	0.0659	MDL	0.984	PQL	mg/Kg	U	B
CADMIUM	0.0699	J	0.0325	MDL	0.984	PQL	mg/Kg	U	B
CALCIUM	2460		3.96	MDL	19.7	PQL	mg/Kg	J	E
PHOSPHORUS	405		0.502	MDL	9.84	PQL	mg/Kg	J	Q, Q
POTASSIUM	3280		13.3	MDL	98.4	PQL	mg/Kg	J	Q
SODIUM	66.5	J	16.4	MDL	98.4	PQL	mg/Kg	J	Z
TIN	2.61	J	0.217	MDL	9.84	PQL	mg/Kg	U	B

Sample ID: **SL-840-SA7-SB-0.0-0.5** ***Collected:*** **4/9/2013 10:15:00** ***Analysis Type:*** **RES/TOT** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	3.99	U	0.499	MDL	3.99	PQL	mg/Kg	UJ	Q
BERYLLIUM	0.613	J	0.0669	MDL	0.998	PQL	mg/Kg	U	B
CADMIUM	0.0728	J	0.0329	MDL	0.998	PQL	mg/Kg	U	B
CALCIUM	2670		4.01	MDL	20.0	PQL	mg/Kg	J	E
MOLYBDENUM	2.00	U	0.170	MDL	2.00	PQL	mg/Kg	UJ	FD
PHOSPHORUS	426		0.509	MDL	9.98	PQL	mg/Kg	J	Q, Q
POTASSIUM	3400		13.5	MDL	99.8	PQL	mg/Kg	J	Q
SODIUM	69.5	J	16.7	MDL	99.8	PQL	mg/Kg	J	Z
TIN	2.64	J	0.220	MDL	9.98	PQL	mg/Kg	U	B
Zirconium	4.99	U	0.828	MDL	4.99	PQL	mg/Kg	UJ	FD

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3 Subarea 7

Data Qualifier Summary

Lab Reporting Batch ID: PH027 **Laboratory: LL**

EDD Filename: PrepPH027_v1 **eQAPP Name: CDM_SSFL_130621_Lan**

Method Category: **METALS**

Method: **6020A** ***Matrix:*** **SO**

Sample ID: **SL-539-SA7-SB-0.0-0.5** ***Collected:*** **4/8/2013 12:45:00** ***Analysis Type:*** **RES/TOT** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SILVER	0.0585	J	0.0205	MDL	0.205	PQL	mg/Kg	J	Z
STRONTIUM	13.9		0.0348	MDL	0.410	PQL	mg/Kg	J	Q

Sample ID: **SL-540-SA7-SB-0.0-0.5** ***Collected:*** **4/9/2013 10:10:00** ***Analysis Type:*** **REA/TOT** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.102	J	0.102	MDL	0.410	PQL	mg/Kg	J	Z, FD

Sample ID: **SL-540-SA7-SB-0.0-0.5** ***Collected:*** **4/9/2013 10:10:00** ***Analysis Type:*** **RES/TOT** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SILVER	0.0240	J	0.0205	MDL	0.205	PQL	mg/Kg	J	Z, FD
STRONTIUM	19.4		0.0348	MDL	0.410	PQL	mg/Kg	J	Q

Sample ID: **SL-542-SA7-SB-0.0-0.5** ***Collected:*** **4/9/2013 8:40:00 AM** ***Analysis Type:*** **REA/TOT** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.187	J	0.102	MDL	0.408	PQL	mg/Kg	J	Z

Sample ID: **SL-542-SA7-SB-0.0-0.5** ***Collected:*** **4/9/2013 8:40:00 AM** ***Analysis Type:*** **RES/TOT** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
STRONTIUM	18.2		0.0347	MDL	0.408	PQL	mg/Kg	J	Q

Sample ID: **SL-544-SA7-SB-0.0-0.5** ***Collected:*** **4/9/2013 1:05:00 PM** ***Analysis Type:*** **RES/TOT** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SILVER	0.0205	J	0.0197	MDL	0.197	PQL	mg/Kg	J	Z
STRONTIUM	10.0		0.0335	MDL	0.394	PQL	mg/Kg	J	Q

Sample ID: **SL-840-SA7-SB-0.0-0.5** ***Collected:*** **4/9/2013 10:15:00** ***Analysis Type:*** **REA/TOT** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.399	U	0.0998	MDL	0.399	PQL	mg/Kg	UJ	FD

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3 Subarea 7

Data Qualifier Summary

Lab Reporting Batch ID: PH027 **Laboratory: LL**

EDD Filename: PrepPH027_v1 **eQAPP Name: CDM_SSFL_130621_Lan**

Method Category: METALS
Method: 6020A **Matrix: SO**

Sample ID: SL-840-SA7-SB-0.0-0.5 *Collected:* 4/9/2013 10:15:00 *Analysis Type:* RES/TOT *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SILVER	0.200	U	0.0200	MDL	0.200	PQL	mg/Kg	UJ	FD
STRONTIUM	14.9		0.0339	MDL	0.399	PQL	mg/Kg	J	Q

Method Category: METALS
Method: 7199 **Matrix: SO**

Sample ID: SL-540-SA7-SB-0.0-0.5 *Collected:* 4/9/2013 10:10:00 *Analysis Type:* RES/TOT *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.37	J	0.15	MDL	0.42	PQL	mg/Kg	J	Z

Sample ID: SL-840-SA7-SB-0.0-0.5 *Collected:* 4/9/2013 10:15:00 *Analysis Type:* RES/TOT *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.26	J	0.15	MDL	0.43	PQL	mg/Kg	J	Z

Method Category: SVOA
Method: 1613B **Matrix: SO**

Sample ID: SL-539-SA7-SB-0.0-0.5 *Collected:* 4/8/2013 12:45:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,7,8,9-HPCDF	2.65	JB	0.0339	MDL	4.99	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HxCDD	1.72	JB	0.0596	MDL	4.99	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HXCDF	2.00	JB	0.0488	MDL	4.99	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDD	4.86	JB	0.0611	MDL	4.99	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	1.24	JB	0.0483	MDL	4.99	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDD	2.77	JB	0.0570	MDL	4.99	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.745	J	0.0501	MDL	4.99	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDD	0.615	JBQ	0.0804	MDL	4.99	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	3.51	JB	0.0476	MDL	4.99	PQL	ng/Kg	J	Z
2,3,4,6,7,8-HXCDF	1.28	JB	0.0480	MDL	4.99	PQL	ng/Kg	J	Z
2,3,4,7,8-PECDF	0.783	JB	0.0430	MDL	4.99	PQL	ng/Kg	J	Z
2,3,7,8-TCDD	0.0932	J	0.0389	MDL	0.998	PQL	ng/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3 Subarea 7

Data Qualifier Summary

Lab Reporting Batch ID: PH027 **Laboratory: LL**

EDD Filename: PrepPH027_v1 **eQAPP Name: CDM_SSFL_130621_Lan**

Method Category: **SVOA**

Method: **1613B** ***Matrix:*** **SO**

Sample ID: **SL-539-SA7-SB-0.0-0.5** ***Collected:*** **4/8/2013 12:45:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,3,7,8-TCDF	0.730	J	0.0830	MDL	0.998	PQL	ng/Kg	J	Z

Sample ID: **SL-540-SA7-SB-0.0-0.5** ***Collected:*** **4/9/2013 10:10:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDF	1.52	JB	0.0219	MDL	5.12	PQL	ng/Kg	J	Z
1,2,3,4,7,8,9-HPCDF	0.159	JBQ	0.0288	MDL	5.12	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.150	JB	0.0459	MDL	5.12	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HXCDF	0.150	JBQ	0.0350	MDL	5.12	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDD	0.361	JBQ	0.0442	MDL	5.12	PQL	ng/Kg	J	Z, FD
1,2,3,6,7,8-HXCDF	0.136	JBQ	0.0319	MDL	5.12	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.339	JB	0.0439	MDL	5.12	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.0774	JQ	0.0371	MDL	5.12	PQL	ng/Kg	J	Z, FD
1,2,3,7,8-PECDD	0.106	JBQ	0.0390	MDL	5.12	PQL	ng/Kg	U	B
1,2,3,7,8-PECDF	0.154	JB	0.0244	MDL	5.12	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.122	JB	0.0329	MDL	5.12	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.0829	JBQ	0.0233	MDL	5.12	PQL	ng/Kg	U	B
OCDD	86.5	B	0.0236	MDL	10.2	PQL	ng/Kg	J	FD
OCDF	3.16	JB	0.0287	MDL	10.2	PQL	ng/Kg	J	Z
TEQ WHO 2005 - EDLx0.0	0.193		0	MDL	0	PQL	ng/Kg	J	FD

Sample ID: **SL-542-SA7-SB-0.0-0.5** ***Collected:*** **4/9/2013 8:40:00 AM** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,7,8,9-HPCDF	0.401	JB	0.0268	MDL	4.92	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HxCDD	0.365	JB	0.0412	MDL	4.92	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HXCDF	0.270	JB	0.0287	MDL	4.92	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDD	0.986	JB	0.0418	MDL	4.92	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.347	JB	0.0270	MDL	4.92	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDD	0.602	JB	0.0404	MDL	4.92	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.0737	JQ	0.0289	MDL	4.92	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDD	0.187	JBQ	0.0341	MDL	4.92	PQL	ng/Kg	U	B
1,2,3,7,8-PECDF	0.161	JBQ	0.0214	MDL	4.92	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.388	JB	0.0258	MDL	4.92	PQL	ng/Kg	J	Z
2,3,4,7,8-PECDF	0.180	JBQ	0.0199	MDL	4.92	PQL	ng/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3 Subarea 7

Data Qualifier Summary

Lab Reporting Batch ID: PH027 **Laboratory: LL**

EDD Filename: PrepPH027_v1 **eQAPP Name: CDM_SSFL_130621_Lan**

Method Category: **SVOA**

Method: **1613B** ***Matrix:*** **SO**

Sample ID: **SL-542-SA7-SB-0.0-0.5** ***Collected:*** **4/9/2013 8:40:00 AM** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,3,7,8-TCDD	0.0325	JQ	0.0287	MDL	0.984	PQL	ng/Kg	J	Z

Sample ID: **SL-544-SA7-SB-0.0-0.5** ***Collected:*** **4/9/2013 1:05:00 PM** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	3.09	JB	0.0219	MDL	5.09	PQL	ng/Kg	J	Z
1,2,3,4,6,7,8-HPCDF	0.518	JB	0.0128	MDL	5.09	PQL	ng/Kg	J	Z
1,2,3,4,7,8,9-HPCDF	0.119	JB	0.0165	MDL	5.09	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.0644	JBQ	0.0286	MDL	5.09	PQL	ng/Kg	U	B
1,2,3,4,7,8-HXCDF	0.0972	JB	0.0205	MDL	5.09	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.164	JB	0.0288	MDL	5.09	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.0818	JB	0.0192	MDL	5.09	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.153	JBQ	0.0284	MDL	5.09	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDF	0.0801	JQ	0.0194	MDL	5.09	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDD	0.0609	JB	0.0292	MDL	5.09	PQL	ng/Kg	U	B
1,2,3,7,8-PECDF	0.0861	JBQ	0.0156	MDL	5.09	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.0429	JBQ	0.0185	MDL	5.09	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.0669	JBQ	0.0153	MDL	5.09	PQL	ng/Kg	U	B
2,3,7,8-TCDD	0.0275	JQ	0.0218	MDL	1.02	PQL	ng/Kg	J	Z
OCDF	0.856	JB	0.0232	MDL	10.2	PQL	ng/Kg	J	Z

Sample ID: **SL-546-SA7-SB-0.0-0.5** ***Collected:*** **4/9/2013 2:15:00 PM** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,7,8,9-HPCDF	1.68	JB	0.0728	MDL	4.97	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HxCDD	1.80	JB	0.0939	MDL	4.97	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HXCDF	1.62	JB	0.0764	MDL	4.97	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	1.03	JB	0.0745	MDL	4.97	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDD	3.26	JB	0.0957	MDL	4.97	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.605	J	0.101	MDL	4.97	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDD	0.952	JBQ	0.0619	MDL	4.97	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	0.704	JB	0.0565	MDL	4.97	PQL	ng/Kg	J	Z
2,3,4,6,7,8-HXCDF	1.27	JB	0.0853	MDL	4.97	PQL	ng/Kg	J	Z
2,3,4,7,8-PECDF	1.56	JB	0.0531	MDL	4.97	PQL	ng/Kg	J	Z
2,3,7,8-TCDD	0.149	J	0.0300	MDL	0.993	PQL	ng/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3 Subarea 7

Data Qualifier Summary

Lab Reporting Batch ID: PH027 **Laboratory: LL**

EDD Filename: PrepPH027_v1 **eQAPP Name: CDM_SSFL_130621_Lan**

Method Category: SVOA

Method: 1613B **Matrix: SO**

Sample ID: SL-546-SA7-SB-0.0-0.5 *Collected:* 4/9/2013 2:15:00 PM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,3,7,8-TCDF	0.801	J	0.0896	MDL	0.993	PQL	ng/Kg	J	Z

Sample ID: SL-840-SA7-SB-0.0-0.5 *Collected:* 4/9/2013 10:15:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDF	2.35	JB	0.0210	MDL	4.90	PQL	ng/Kg	J	Z
1,2,3,4,7,8,9-HPCDF	0.239	JB	0.0266	MDL	4.90	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HxCDD	0.197	JB	0.0383	MDL	4.90	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HXCDF	0.196	JB	0.0263	MDL	4.90	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDD	0.661	JB	0.0386	MDL	4.90	PQL	ng/Kg	J	Z, FD
1,2,3,6,7,8-HXCDF	0.173	JBQ	0.0248	MDL	4.90	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.443	JB	0.0344	MDL	4.90	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.204	J	0.0271	MDL	4.90	PQL	ng/Kg	J	Z, FD
1,2,3,7,8-PECDD	0.175	JB	0.0370	MDL	4.90	PQL	ng/Kg	U	B
1,2,3,7,8-PECDF	0.148	JBQ	0.0208	MDL	4.90	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.187	JB	0.0251	MDL	4.90	PQL	ng/Kg	J	Z
2,3,4,7,8-PECDF	0.117	JB	0.0195	MDL	4.90	PQL	ng/Kg	U	B
OCDD	161	B	0.0297	MDL	9.80	PQL	ng/Kg	J	FD
OCDF	4.40	JB	0.0236	MDL	9.80	PQL	ng/Kg	J	Z
TEQ WHO 2005 - EDLx0.0	0.602		0	MDL	0	PQL	ng/Kg	J	FD

Method Category: SVOA

Method: 8015M **Matrix: SO**

Sample ID: SL-540-SA7-SB-0.0-0.5 *Collected:* 4/9/2013 10:10:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C15-C20)	3.0	J	2.0	MDL	5.1	PQL	mg/Kg	J	Z, Q
EFH (C21-C30)	4.9	J	2.0	MDL	5.1	PQL	mg/Kg	J	Z
EFH (C30-C40)	17		4.1	MDL	10	PQL	mg/Kg	J	Q, Q, Q, FD

Sample ID: SL-542-SA7-SB-0.0-0.5 *Collected:* 4/9/2013 8:40:00 AM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C15-C20)	3.5	J	2.0	MDL	5.1	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3 Subarea 7

Data Qualifier Summary

Lab Reporting Batch ID: PH027 **Laboratory: LL**

EDD Filename: PrepPH027_v1 **eQAPP Name: CDM_SSFL_130621_Lan**

Method Category: SVOA
Method: 8015M **Matrix: SO**

Sample ID: SL-840-SA7-SB-0.0-0.5 *Collected:* 4/9/2013 10:15:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C15-C20)	4.3	J	2.0	MDL	5.1	PQL	mg/Kg	J	Z
EFH (C30-C40)	46		4.1	MDL	10	PQL	mg/Kg	J	FD

Method Category: SVOA
Method: 8082A **Matrix: SO**

Sample ID: SL-539-SA7-SB-0.0-0.5 *Collected:* 4/8/2013 12:45:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Aroclor 5460	23	J	10	MDL	34	PQL	ug/Kg	J	Z

Method Category: SVOA
Method: 8270D SIM **Matrix: SO**

Sample ID: SL-539-SA7-SB-0.0-0.5 *Collected:* 4/8/2013 12:45:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 10

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTHRACENE	6.0	J	3.4	MDL	17	PQL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	11	J	6.8	MDL	17	PQL	ug/Kg	J	Z

Sample ID: SL-540-SA7-SB-0.0-0.5 *Collected:* 4/9/2013 10:10:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(A)ANTHRACENE	1.7	U	0.69	MDL	1.7	PQL	ug/Kg	UJ	FD
BENZO(A)PYRENE	0.74	J	0.69	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	1.4	J	0.69	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(E)PYRENE	18	U	3.4	MDL	18	PQL	ug/Kg	UJ	Q
BENZO(G,H,I)PERYLENE	0.98	J	0.69	MDL	1.7	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	15	J	6.2	MDL	19	PQL	ug/Kg	J	Z
Butylbenzylphthalate	6.7	J	6.2	MDL	19	PQL	ug/Kg	J	Z
CHRYSENE	1.6	J	0.34	MDL	1.7	PQL	ug/Kg	J	Z
FLUORANTHENE	1.4	J	0.69	MDL	1.7	PQL	ug/Kg	J	Z
NAPHTHALENE	0.83	J	0.69	MDL	1.7	PQL	ug/Kg	UJ	F, FD
PHENANTHRENE	0.77	J	0.69	MDL	1.7	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3 Subarea 7

Data Qualifier Summary

Lab Reporting Batch ID: PH027 **Laboratory: LL**

EDD Filename: PrepPH027_v1 **eQAPP Name: CDM_SSFL_130621_Lan**

Method Category: **SVOA**

Method: **8270D SIM** ***Matrix:*** **SO**

Sample ID: **SL-540-SA7-SB-0.0-0.5** ***Collected:*** **4/9/2013 10:10:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
PYRENE	1.5	J	0.69	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: **SL-542-SA7-SB-0.0-0.5** ***Collected:*** **4/9/2013 8:40:00 AM** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(E)PYRENE	4.0	J	3.4	MDL	17	PQL	ug/Kg	J	Z
DIBENZO(A,H)ANTHRACENE	1.0	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
FLUORENE	0.71	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
NAPHTHALENE	1.2	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: **SL-544-SA7-SB-0.0-0.5** ***Collected:*** **4/9/2013 1:05:00 PM** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(A)PYRENE	0.71	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	1.4	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	1.2	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
CHRYSENE	1.6	J	0.34	MDL	1.7	PQL	ug/Kg	J	Z
FLUORANTHENE	1.1	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
PHENANTHRENE	0.84	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
PYRENE	1.1	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: **SL-840-SA7-SB-0.0-0.5** ***Collected:*** **4/9/2013 10:15:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(A)ANTHRACENE	0.80	J	0.69	MDL	1.7	PQL	ug/Kg	J	Z, FD
BENZO(A)PYRENE	0.89	J	0.69	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	1.6	J	0.69	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	0.77	J	0.69	MDL	1.7	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	13	J	6.2	MDL	19	PQL	ug/Kg	J	Z
Butylbenzylphthalate	8.7	J	6.2	MDL	19	PQL	ug/Kg	J	Z
CHRYSENE	1.5	J	0.34	MDL	1.7	PQL	ug/Kg	J	Z
NAPHTHALENE	1.7	U	0.69	MDL	1.7	PQL	ug/Kg	UJ	FD
PHENANTHRENE	1.1	J	0.69	MDL	1.7	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3 Subarea 7

Data Qualifier Summary

Lab Reporting Batch ID: PH027 **Laboratory: LL**

EDD Filename: PrepPH027_v1 **eQAPP Name: CDM_SSFL_130621_Lan**

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3 Subarea 7

Data Qualifier Summary

Lab Reporting Batch ID: PH027 **Laboratory: LL**

EDD Filename: PrepPH027_v1 **eQAPP Name: CDM_SSFL_130621_Lan**

Reason Code Legend

Reason Code	*Description*
B	Calibration Blank Contamination
B	Method Blank Contamination
E	Laboratory Duplicate Precision
E	Matrix Spike Precision
F	Equipment Blank Contamination
F	Field Blank Contamination
FD	Field Duplicate Precision
L	Laboratory Control Spike Upper Estimation
Q	Laboratory Duplicate Precision
Q	Matrix Spike Lower Estimation
Q	Matrix Spike Lower Rejection
Q	Matrix Spike Precision
Q	Matrix Spike Upper Estimation
Z	Reporting Limit Trace Value

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3 Subarea 7

Enclosure I

Level III ADR Outliers
(including Manual Review Outliers)

Quality Control Outlier Reports

PH027

Method Blank Outlier Report

Lab Reporting Batch ID: PH027 **Laboratory: LL**

EDD Filename: PrepPH027_v1 **eQAPP Name: CDM_SSFL_130621_Lan**

Method: **1613B**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
BLK1010B371822	4/12/2013 6:22:00 PM	1,2,3,4,6,7,8-HPCDD	0.0607 ng/Kg	SL-539-SA7-SB-0.0-0.5
		1,2,3,4,6,7,8-HPCDF	0.0395 ng/Kg	SL-540-SA7-SB-0.0-0.5
		1,2,3,4,7,8,9-HPCDF	0.0369 ng/Kg	SL-542-SA7-SB-0.0-0.5
		1,2,3,4,7,8-HxCDD	0.0258 ng/Kg	SL-544-SA7-SB-0.0-0.5
		1,2,3,4,7,8-HXCDF	0.0274 ng/Kg	SL-546-SA7-SB-0.0-0.5
		1,2,3,6,7,8-HXCDD	0.0317 ng/Kg	SL-840-SA7-SB-0.0-0.5
		1,2,3,6,7,8-HXCDF	0.0363 ng/Kg	
		1,2,3,7,8,9-HXCDD	0.0327 ng/Kg	
		1,2,3,7,8-PECDD	0.0393 ng/Kg	
		1,2,3,7,8-PECDF	0.0399 ng/Kg	
		2,3,4,6,7,8-HXCDF	0.0246 ng/Kg	
		2,3,4,7,8-PECDF	0.0324 ng/Kg	
		OCDD	0.181 ng/Kg	
		OCDF	0.120 ng/Kg	
		TEQ WHO 2005 - EDLx0.0	0.0000540 ng/Kg	

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-540-SA7-SB-0.0-0.5(RES)	1,2,3,4,7,8,9-HPCDF	0.159 ng/Kg	0.159U ng/Kg
SL-540-SA7-SB-0.0-0.5(RES)	1,2,3,6,7,8-HXCDF	0.136 ng/Kg	0.136U ng/Kg
SL-540-SA7-SB-0.0-0.5(RES)	1,2,3,7,8-PECDD	0.106 ng/Kg	0.106U ng/Kg
SL-540-SA7-SB-0.0-0.5(RES)	1,2,3,7,8-PECDF	0.154 ng/Kg	0.154U ng/Kg
SL-540-SA7-SB-0.0-0.5(RES)	2,3,4,6,7,8-HXCDF	0.122 ng/Kg	0.122U ng/Kg
SL-540-SA7-SB-0.0-0.5(RES)	2,3,4,7,8-PECDF	0.0829 ng/Kg	0.0829U ng/Kg
SL-542-SA7-SB-0.0-0.5(RES)	1,2,3,7,8-PECDD	0.187 ng/Kg	0.187U ng/Kg
SL-542-SA7-SB-0.0-0.5(RES)	1,2,3,7,8-PECDF	0.161 ng/Kg	0.161U ng/Kg
SL-544-SA7-SB-0.0-0.5(RES)	1,2,3,4,7,8,9-HPCDF	0.119 ng/Kg	0.119U ng/Kg
SL-544-SA7-SB-0.0-0.5(RES)	1,2,3,4,7,8-HxCDD	0.0644 ng/Kg	0.0644U ng/Kg
SL-544-SA7-SB-0.0-0.5(RES)	1,2,3,4,7,8-HXCDF	0.0972 ng/Kg	0.0972U ng/Kg
SL-544-SA7-SB-0.0-0.5(RES)	1,2,3,6,7,8-HXCDF	0.0818 ng/Kg	0.0818U ng/Kg
SL-544-SA7-SB-0.0-0.5(RES)	1,2,3,7,8,9-HXCDD	0.153 ng/Kg	0.153U ng/Kg
SL-544-SA7-SB-0.0-0.5(RES)	1,2,3,7,8-PECDD	0.0609 ng/Kg	0.0609U ng/Kg
SL-544-SA7-SB-0.0-0.5(RES)	1,2,3,7,8-PECDF	0.0861 ng/Kg	0.0861U ng/Kg
SL-544-SA7-SB-0.0-0.5(RES)	2,3,4,6,7,8-HXCDF	0.0429 ng/Kg	0.0429U ng/Kg
SL-544-SA7-SB-0.0-0.5(RES)	2,3,4,7,8-PECDF	0.0669 ng/Kg	0.0669U ng/Kg
SL-840-SA7-SB-0.0-0.5(RES)	1,2,3,6,7,8-HXCDF	0.173 ng/Kg	0.173U ng/Kg
SL-840-SA7-SB-0.0-0.5(RES)	1,2,3,7,8-PECDD	0.175 ng/Kg	0.175U ng/Kg
SL-840-SA7-SB-0.0-0.5(RES)	1,2,3,7,8-PECDF	0.148 ng/Kg	0.148U ng/Kg
SL-840-SA7-SB-0.0-0.5(RES)	2,3,4,7,8-PECDF	0.117 ng/Kg	0.117U ng/Kg

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3 Subarea 7

Method Blank Outlier Report

Lab Reporting Batch ID: PH027 **Laboratory: LL**

EDD Filename: PrepPH027_v1 **eQAPP Name: CDM_SSFL_130621_Lan**

Method: **6010C**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P10537CB221641	4/19/2013 4:41:00 PM	CALCIUM	4.23 mg/Kg	SL-539-SA7-SB-0.0-0.5
		PHOSPHORUS	14.4 mg/Kg	SL-540-SA7-SB-0.0-0.5
		TIN	1.39 mg/Kg	SL-542-SA7-SB-0.0-0.5
		ZINC	0.273 mg/Kg	SL-544-SA7-SB-0.0-0.5
				SL-840-SA7-SB-0.0-0.5

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-539-SA7-SB-0.0-0.5(RES/TOT)	TIN	2.66 mg/Kg	2.66U mg/Kg
SL-540-SA7-SB-0.0-0.5(RES/TOT)	TIN	2.76 mg/Kg	2.76U mg/Kg
SL-542-SA7-SB-0.0-0.5(RES/TOT)	TIN	2.51 mg/Kg	2.51U mg/Kg
SL-544-SA7-SB-0.0-0.5(RES/TOT)	TIN	2.61 mg/Kg	2.61U mg/Kg
SL-840-SA7-SB-0.0-0.5(RES/TOT)	TIN	2.64 mg/Kg	2.64U mg/Kg

Equipment Rinsate Blank Outlier Report

Lab Reporting Batch ID: PH027 **Laboratory: LL**

EDD Filename: PrepPH027_v1 **eQAPP Name: CDM_SSFL_130621_Lan**

Method: **6010C**
Matrix: **SO**

Equipment Blank Sample ID	Collected Date	Analyte	Result	Associated Samples
EB-041113(REA2)	4/11/2013 3:15:00 PM	CALCIUM	0.131 mg/L	SL-539-SA7-SB-0.0-0.5
		COPPER	0.0035 mg/L	SL-540-SA7-SB-0.0-0.5
		MANGANESE	0.0012 mg/L	SL-542-SA7-SB-0.0-0.5
		MOLYBDENUM	0.0143 mg/L	SL-544-SA7-SB-0.0-0.5
		TIN	0.0024 mg/L	SL-546-SA7-SB-0.0-0.5
		ZINC	0.0041 mg/L	SL-840-SA7-SB-0.0-0.5

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-540-SA7-SB-0.0-0.5(RES/TOT)	MOLYBDENUM	0.672 mg/Kg	0.672U mg/Kg

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3 Subarea 7

Field Blank Outlier Report

Lab Reporting Batch ID: PH027 **Laboratory: LL**

EDD Filename: PrepPH027_v1 **eQAPP Name: CDM_SSFL_130621_Lan**

Method: 6010C
Matrix: SO

Field Blank Sample ID	Collected Date	Analyte	Result	Associated Samples
FB-041113(REA2)	4/11/2013 3:00:00 PM	COPPER	0.0036 mg/L	SL-539-SA7-SB-0.0-0.5
		MOLYBDENUM	0.0036 mg/L	SL-540-SA7-SB-0.0-0.5
				SL-542-SA7-SB-0.0-0.5
				SL-544-SA7-SB-0.0-0.5
				SL-546-SA7-SB-0.0-0.5
				SL-840-SA7-SB-0.0-0.5

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-540-SA7-SB-0.0-0.5(RES/TOT)	MOLYBDENUM	0.672 mg/Kg	0.672U mg/Kg

Method: 8270D SIM
Matrix: SO

Field Blank Sample ID	Collected Date	Analyte	Result	Associated Samples
FB-041113(RES)	4/11/2013 3:00:00 PM	1-Methylnaphthalene	0.019 ug/L	SL-539-SA7-SB-0.0-0.5
		2-METHYLNAPHTHALENE	0.024 ug/L	SL-540-SA7-SB-0.0-0.5
		BIS(2-ETHYLHEXYL)PHTHALATE	0.082 ug/L	SL-542-SA7-SB-0.0-0.5
		Diethylphthalate	0.18 ug/L	SL-544-SA7-SB-0.0-0.5
		Di-n-butylphthalate	0.17 ug/L	SL-546-SA7-SB-0.0-0.5
		NAPHTHALENE	0.17 ug/L	SL-840-SA7-SB-0.0-0.5

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-540-SA7-SB-0.0-0.5(RES)	NAPHTHALENE	0.83 ug/Kg	1.7U ug/Kg

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: PH027 **Laboratory: LL**

EDD Filename: PH027_v1 **eQAPP Name: CDM_SSFL_130516_Lan**

Method: 6010C
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-540-SA7-SB-0.0-0.5MS (TOT) SL-540-SA7-SB-0.0-0.5MSD (TOT) (SL-539-SA7-SB-0.0-0.5 SL-540-SA7-SB-0.0-0.5 SL-542-SA7-SB-0.0-0.5 SL-544-SA7-SB-0.0-0.5 SL-840-SA7-SB-0.0-0.5)	ALUMINUM MAGNESIUM TITANIUM	1818 169 325	1689 - 208	75.00-125.00 75.00-125.00 75.00-125.00	- - -	ALUMINUM MAGNESIUM TITANIUM	No Qual, >4x
SL-540-SA7-SB-0.0-0.5MS (TOT) SL-540-SA7-SB-0.0-0.5MSD (TOT) (SL-539-SA7-SB-0.0-0.5 SL-540-SA7-SB-0.0-0.5 SL-542-SA7-SB-0.0-0.5 SL-544-SA7-SB-0.0-0.5 SL-840-SA7-SB-0.0-0.5)	CALCIUM IRON	17 -545	365 -1097	75.00-125.00 75.00-125.00	37 (20.00) -	CALCIUM IRON	J(all detects) UJ(all non-detects) Fe, Ca, No Qual %R, >4x
SL-540-SA7-SB-0.0-0.5MS (TOT) SL-540-SA7-SB-0.0-0.5MSD (TOT) (SL-539-SA7-SB-0.0-0.5 SL-540-SA7-SB-0.0-0.5 SL-542-SA7-SB-0.0-0.5 SL-544-SA7-SB-0.0-0.5 SL-840-SA7-SB-0.0-0.5)	ANTIMONY MANGANESE PHOSPHORUS POTASSIUM	48 131 56 -	47 65 127 65	75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00	- - - -	ANTIMONY MANGANESE PHOSPHORUS POTASSIUM	J(all detects) UJ(all non-detects) Mn, No Qual, >4x

Method: 6020A
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-540-SA7-SB-0.0-0.5MSD (TOT) (SL-539-SA7-SB-0.0-0.5 SL-540-SA7-SB-0.0-0.5 SL-542-SA7-SB-0.0-0.5 SL-544-SA7-SB-0.0-0.5 SL-840-SA7-SB-0.0-0.5)	STRONTIUM	-	153	75.00-125.00	-	STRONTIUM	J(all detects)

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Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: PH027 **Laboratory: LL**

EDD Filename: PrepPH027_v1 **eQAPP Name: CDM_SSFL_130621_Lan**

Method: 8270D SIM
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-540-SA7-SB-0.0-0.5MS SL-540-SA7-SB-0.0-0.5MSD (SL-540-SA7-SB-0.0-0.5)	Diethylphthalate	135	133	76.00-127.00	-	Diethylphthalate	J(all detects)
SL-540-SA7-SB-0.0-0.5MS SL-540-SA7-SB-0.0-0.5MSD (SL-540-SA7-SB-0.0-0.5)	BENZO(E)PYRENE	1	1	70.00-130.00	-	BENZO(E)PYRENE	J(all detects) UJ(all non-detects)

Method: 8015M
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-540-SA7-SB-0.0-0.5MSD (SL-540-SA7-SB-0.0-0.5)	EFH (C15-C20)	-	-	49.00-123.00	27 (20.00)	EFH (C15-C20)	J(all detects)
SL-540-SA7-SB-0.0-0.5MS SL-540-SA7-SB-0.0-0.5MSD (SL-540-SA7-SB-0.0-0.5)	EFH (C30-C40)	40	134	49.00-123.00	22 (20.00)	EFH (C30-C40)	J(all detects) UJ(all non-detects)

Lab Duplicate Outlier Report

Lab Reporting Batch ID: PH027 **Laboratory: LL**

EDD Filename: PH027_v1 **eQAPP Name: CDM_SSFL_130621_Lan**

Method: 6010C
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-540-SA7-SB-0.0-0.5DUP (TOT) (SL-539-SA7-SB-0.0-0.5 SL-540-SA7-SB-0.0-0.5 SL-542-SA7-SB-0.0-0.5 SL-544-SA7-SB-0.0-0.5 SL-840-SA7-SB-0.0-0.5)	CADMIUM	49	20.00	No Qual, OK by Difference
	MOLYBDENUM	94	20.00	
	Zirconium	63	20.00	

Method: 6020A
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-540-SA7-SB-0.0-0.5DUP (TOT) (SL-539-SA7-SB-0.0-0.5 SL-540-SA7-SB-0.0-0.5 SL-542-SA7-SB-0.0-0.5 SL-544-SA7-SB-0.0-0.5 SL-840-SA7-SB-0.0-0.5)	SELENIUM	50	20.00	No Qual, OK by Difference

Field Duplicate RPD Report

Lab Reporting Batch ID: PH027 **Laboratory: LL**

EDD Filename: PH027_v1 **eQAPP Name: CDM_SSFL_130621_Lan**

Method: 160.3M
Matrix: SO

Analyte	Concentration (%)		Sample RPD	eQAPP RPD	Flag
	SL-540-SA7-SB-0.0-0.5	SL-840-SA7-SB-0.0-0.5			
MOISTURE	3.3	2.7	20		No Qualifiers Applied

Method: 1613B
Matrix: SO

Analyte	Concentration (ng/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-540-SA7-SB-0.0-0.5	SL-840-SA7-SB-0.0-0.5			
1,2,3,4,6,7,8-HPCDD	8.49	12.7	40	50.00	No Qualifiers Applied
1,2,3,4,6,7,8-HPCDF	1.52	2.35	43	50.00	
1,2,3,4,7,8,9-HPCDF	0.159	0.239	40	50.00	
1,2,3,4,7,8-HxCDD	0.150	0.197	27	50.00	
1,2,3,4,7,8-HXCDF	0.150	0.196	27	50.00	
1,2,3,6,7,8-HXCDF	0.136	0.173	24	50.00	
1,2,3,7,8,9-HXCDD	0.339	0.443	27	50.00	
1,2,3,7,8-PECDD	0.106	0.175	49	50.00	
1,2,3,7,8-PECDF	0.154	0.148	4	50.00	
2,3,4,6,7,8-HXCDF	0.122	0.187	42	50.00	
2,3,4,7,8-PECDF	0.0829	0.117	34	50.00	
OCDF	3.16	4.40	33	50.00	
1,2,3,6,7,8-HXCDD	0.361	0.661	59	50.00	J(all detects)
1,2,3,7,8,9-HXCDF	0.0774	0.204	90	50.00	
OCDD	86.5	161	60	50.00	
TEQ WHO 2005 - EDLx0.0	0.193	0.602	103	50.00	

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Field Duplicate RPD Report

Lab Reporting Batch ID: PH027 **Laboratory: LL**

EDD Filename: PH027_v1 **eQAPP Name: CDM_SSFL_130621_Lan**

Method: 6010C
Matrix: SO

Analyte	Concentration (mg/Kg) SL-540-SA7-SB-0.0-0.5 (TOT)	Concentration (mg/Kg) SL-840-SA7-SB-0.0-0.5 (TOT)	Sample RPD	eQAPP RPD	Flag
ALUMINUM	13300	14800	11	50.00	No Qualifiers Applied
ARSENIC	4.19	4.74	12	50.00	
BARIUM	72.7	73.5	1	50.00	
BERYLLIUM	0.556	0.613	10	50.00	
CADMIUM	0.0727	0.0728	0	50.00	
CALCIUM	3100	2670	15	50.00	
CHROMIUM	15.2	15.4	1	50.00	
COBALT	4.28	4.00	7	50.00	
COPPER	6.71	6.02	11	50.00	
IRON	19000	19100	1	50.00	
LEAD	5.22	4.92	6	50.00	
LITHIUM	22.4	23.6	5	50.00	
MAGNESIUM	4080	4100	0	50.00	
MANGANESE	244	245	0	50.00	
NICKEL	8.81	8.86	1	50.00	
PHOSPHORUS	399	426	7	50.00	
POTASSIUM	3560	3400	5	50.00	
SODIUM	69.3	69.5	0	50.00	
TIN	2.76	2.64	4	50.00	
TITANIUM	888	983	10	50.00	
VANADIUM	29.8	32.0	7	50.00	
ZINC	55.8	52.3	6	50.00	
MOLYBDENUM	0.672	2.00 U	200	50.00	J(all detects)
Zirconium	0.921	4.99 U	200	50.00	UJ(all non-detects)

Method: 6020A
Matrix: SO

Analyte	Concentration (mg/Kg) SL-540-SA7-SB-0.0-0.5 (TOT)	Concentration (mg/Kg) SL-840-SA7-SB-0.0-0.5 (TOT)	Sample RPD	eQAPP RPD	Flag
STRONTIUM	19.4	14.9	26	50.00	No Qualifiers Applied
THALLIUM	0.223	0.244	9	50.00	
SELENIUM	0.102	0.399 U	200	50.00	J(all detects)
SILVER	0.0240	0.200 U	200	50.00	UJ(all non-detects)

Method: 7199
Matrix: SO

Analyte	Concentration (mg/Kg) SL-540-SA7-SB-0.0-0.5 (TOT)	Concentration (mg/Kg) SL-840-SA7-SB-0.0-0.5 (TOT)	Sample RPD	eQAPP RPD	Flag
HEXAVALENT CHROMIUM	0.37	0.26	35	50.00	No Qualifiers Applied

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3 Subarea 7

Field Duplicate RPD Report

Lab Reporting Batch ID: PH027 **Laboratory: LL**

EDD Filename: PH027_v1 **eQAPP Name: CDM_SSFL_130621_Lan**

Method: 8015M
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-540-SA7-SB-0.0-0.5	SL-840-SA7-SB-0.0-0.5			
EFH (C15-C20)	3.0	4.3	36	50.00	No Qualifiers Applied
EFH (C21-C30)	4.9	7.0	35	50.00	
EFH (C30-C40)	17	46	92	50.00	J(all detects)

Method: 8270D SIM
Matrix: SO

Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-540-SA7-SB-0.0-0.5	SL-840-SA7-SB-0.0-0.5			
BENZO(A)PYRENE	0.74	0.89	18	50.00	No Qualifiers Applied
BENZO(B)FLUORANTHENE	1.4	1.6	13	50.00	
BENZO(G,H,I)PERYLENE	0.98	0.77	24	50.00	
BIS(2-ETHYLHEXYL)PHTHALATE	15	13	14	50.00	
Butylbenzylphthalate	6.7	8.7	26	50.00	
CHRYSENE	1.6	1.5	6	50.00	
FLUORANTHENE	1.4	1.7	19	50.00	
PHENANTHRENE	0.77	1.1	35	50.00	
PYRENE	1.5	2.1	33	50.00	
BENZO(A)ANTHRACENE	1.7 U	0.80	200	50.00	J(all detects)
NAPHTHALENE	0.83	1.7 U	200	50.00	UJ(all non-detects)

Reporting Limit Outliers

Lab Reporting Batch ID: PH027 **Laboratory: LL**

EDD Filename: PH027_v1 **eQAPP Name: CDM_SSFL_130516_Lan**

Method: **1613B**

Matrix: **SO**

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-539-SA7-SB-0.0-0.5	1,2,3,4,7,8,9-HPCDF	JB	2.65	4.99	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JB	1.72	4.99	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JB	2.00	4.99	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JB	4.86	4.99	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	1.24	4.99	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JB	2.77	4.99	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	J	0.745	4.99	PQL	ng/Kg	J (all detects)
	1,2,3,7,8-PECDD	JBQ	0.615	4.99	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JB	3.51	4.99	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JB	1.28	4.99	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	0.783	4.99	PQL	ng/Kg	
	2,3,7,8-TCDD	J	0.0932	0.998	PQL	ng/Kg	
	2,3,7,8-TCDF	J	0.730	0.998	PQL	ng/Kg	
SL-540-SA7-SB-0.0-0.5	1,2,3,4,6,7,8-HPCDF	JB	1.52	5.12	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.159	5.12	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JB	0.150	5.12	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JBQ	0.150	5.12	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JBQ	0.361	5.12	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.136	5.12	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JB	0.339	5.12	PQL	ng/Kg	J (all detects)
	1,2,3,7,8,9-HXCDF	JQ	0.0774	5.12	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JBQ	0.106	5.12	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JB	0.154	5.12	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JB	0.122	5.12	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.0829	5.12	PQL	ng/Kg	
	OCDF	JB	3.16	10.2	PQL	ng/Kg	
SL-542-SA7-SB-0.0-0.5	1,2,3,4,7,8,9-HPCDF	JB	0.401	4.92	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JB	0.365	4.92	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JB	0.270	4.92	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JB	0.986	4.92	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	0.347	4.92	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JB	0.602	4.92	PQL	ng/Kg	J (all detects)
	1,2,3,7,8,9-HXCDF	JQ	0.0737	4.92	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JBQ	0.187	4.92	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JBQ	0.161	4.92	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JB	0.388	4.92	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.180	4.92	PQL	ng/Kg	
	2,3,7,8-TCDD	JQ	0.0325	0.984	PQL	ng/Kg	

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Reporting Limit Outliers

Lab Reporting Batch ID: PH027 **Laboratory: LL**

EDD Filename: PH027_v1 **eQAPP Name: CDM_SSFL_130516_Lan**

Method: **1613B**

Matrix: **SO**

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-544-SA7-SB-0.0-0.5	1,2,3,4,6,7,8-HPCDD	JB	3.09	5.09	PQL	ng/Kg	J (all detects)
	1,2,3,4,6,7,8-HPCDF	JB	0.518	5.09	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JB	0.119	5.09	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JBQ	0.0644	5.09	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JB	0.0972	5.09	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JB	0.164	5.09	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	0.0818	5.09	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JBQ	0.153	5.09	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JQ	0.0801	5.09	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JB	0.0609	5.09	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JBQ	0.0861	5.09	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JBQ	0.0429	5.09	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.0669	5.09	PQL	ng/Kg	
	2,3,7,8-TCDD	JQ	0.0275	1.02	PQL	ng/Kg	
	OCDF	JB	0.856	10.2	PQL	ng/Kg	
SL-546-SA7-SB-0.0-0.5	1,2,3,4,7,8,9-HPCDF	JB	1.68	4.97	PQL	ng/Kg	J (all detects)
	1,2,3,4,7,8-HxCDD	JB	1.80	4.97	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JB	1.62	4.97	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	1.03	4.97	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JB	3.26	4.97	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	J	0.605	4.97	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JBQ	0.952	4.97	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JB	0.704	4.97	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JB	1.27	4.97	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	1.56	4.97	PQL	ng/Kg	
	2,3,7,8-TCDD	J	0.149	0.993	PQL	ng/Kg	
	2,3,7,8-TCDF	J	0.801	0.993	PQL	ng/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: PH027 **Laboratory: LL**

EDD Filename: PH027_v1 **eQAPP Name: CDM_SSFL_130516_Lan**

Method: 1613B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-840-SA7-SB-0.0-0.5	1,2,3,4,6,7,8-HPCDF	JB	2.35	4.90	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JB	0.239	4.90	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JB	0.197	4.90	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JB	0.196	4.90	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JB	0.661	4.90	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.173	4.90	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JB	0.443	4.90	PQL	ng/Kg	J (all detects)
	1,2,3,7,8,9-HXCDF	J	0.204	4.90	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JB	0.175	4.90	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JBQ	0.148	4.90	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JB	0.187	4.90	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	0.117	4.90	PQL	ng/Kg	
	OCDF	JB	4.40	9.80	PQL	ng/Kg	

Method: 6010C

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-539-SA7-SB-0.0-0.5	BERYLLIUM	J	0.480	1.02	PQL	mg/Kg	
	BORON	J	4.32	10.2	PQL	mg/Kg	
	CADMIUM	J	0.161	1.02	PQL	mg/Kg	J (all detects)
	SODIUM	J	66.5	102	PQL	mg/Kg	
	TIN	J	2.66	10.2	PQL	mg/Kg	
SL-540-SA7-SB-0.0-0.5	BERYLLIUM	J	0.556	1.02	PQL	mg/Kg	
	CADMIUM	J	0.0727	1.02	PQL	mg/Kg	
	MOLYBDENUM	J	0.672	2.05	PQL	mg/Kg	J (all detects)
	SODIUM	J	69.3	102	PQL	mg/Kg	
	TIN	J	2.76	10.2	PQL	mg/Kg	
	Zirconium	J	0.921	5.12	PQL	mg/Kg	
SL-542-SA7-SB-0.0-0.5	BERYLLIUM	J	0.527	1.02	PQL	mg/Kg	
	CADMIUM	J	0.118	1.02	PQL	mg/Kg	J (all detects)
	SODIUM	J	71.7	102	PQL	mg/Kg	
	TIN	J	2.51	10.2	PQL	mg/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: PH027 **Laboratory: LL**

EDD Filename: PH027_v1 **eQAPP Name: CDM_SSFL_130516_Lan**

Method: 6010C
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-544-SA7-SB-0.0-0.5	ARSENIC	J	3.40	3.94	PQL	mg/Kg	J (all detects)
	BERYLLIUM	J	0.465	0.984	PQL	mg/Kg	
	CADMIUM	J	0.0699	0.984	PQL	mg/Kg	
	SODIUM	J	66.5	98.4	PQL	mg/Kg	
	TIN	J	2.61	9.84	PQL	mg/Kg	
SL-840-SA7-SB-0.0-0.5	BERYLLIUM	J	0.613	0.998	PQL	mg/Kg	J (all detects)
	CADMIUM	J	0.0728	0.998	PQL	mg/Kg	
	SODIUM	J	69.5	99.8	PQL	mg/Kg	
	TIN	J	2.64	9.98	PQL	mg/Kg	

Method: 6020A
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-539-SA7-SB-0.0-0.5	SILVER	J	0.0585	0.205	PQL	mg/Kg	J (all detects)
SL-540-SA7-SB-0.0-0.5	SELENIUM	J	0.102	0.410	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0240	0.205	PQL	mg/Kg	
SL-542-SA7-SB-0.0-0.5	SELENIUM	J	0.187	0.408	PQL	mg/Kg	J (all detects)
SL-544-SA7-SB-0.0-0.5	SILVER	J	0.0205	0.197	PQL	mg/Kg	J (all detects)

Method: 7199
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-540-SA7-SB-0.0-0.5	HEXAVALENT CHROMIUM	J	0.37	0.42	PQL	mg/Kg	J (all detects)
SL-840-SA7-SB-0.0-0.5	HEXAVALENT CHROMIUM	J	0.26	0.43	PQL	mg/Kg	J (all detects)

Method: 8015M
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-540-SA7-SB-0.0-0.5	EFH (C15-C20)	J	3.0	5.1	PQL	mg/Kg	J (all detects)
	EFH (C21-C30)	J	4.9	5.1	PQL	mg/Kg	
SL-542-SA7-SB-0.0-0.5	EFH (C15-C20)	J	3.5	5.1	PQL	mg/Kg	J (all detects)
SL-840-SA7-SB-0.0-0.5	EFH (C15-C20)	J	4.3	5.1	PQL	mg/Kg	J (all detects)

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3 Subarea 7

Reporting Limit Outliers

Lab Reporting Batch ID: PH027 **Laboratory: LL**

EDD Filename: PH027_v1 **eQAPP Name: CDM_SSFL_130516_Lan**

Method: 8082A
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-539-SA7-SB-0.0-0.5	Aroclor 5460	J	23	34	PQL	ug/Kg	J (all detects)

Method: 8270D SIM
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-539-SA7-SB-0.0-0.5	ANTHRACENE	J	6.0	17	PQL	ug/Kg	J (all detects)
	BENZO(B)FLUORANTHENE	J	11	17	PQL	ug/Kg	
SL-540-SA7-SB-0.0-0.5	BENZO(A)PYRENE	J	0.74	1.7	PQL	ug/Kg	J (all detects)
	BENZO(B)FLUORANTHENE	J	1.4	1.7	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	0.98	1.7	PQL	ug/Kg	
	BIS(2-ETHYLHEXYL)PHTHALATE	J	15	19	PQL	ug/Kg	
	Butylbenzylphthalate	J	6.7	19	PQL	ug/Kg	
	CHRYSENE	J	1.6	1.7	PQL	ug/Kg	
	FLUORANTHENE	J	1.4	1.7	PQL	ug/Kg	
	NAPHTHALENE	J	0.83	1.7	PQL	ug/Kg	
	PHENANTHRENE	J	0.77	1.7	PQL	ug/Kg	
	PYRENE	J	1.5	1.7	PQL	ug/Kg	
SL-542-SA7-SB-0.0-0.5	BENZO(E)PYRENE	J	4.0	17	PQL	ug/Kg	J (all detects)
	DIBENZO(A,H)ANTHRACENE	J	1.0	1.7	PQL	ug/Kg	
	FLUORENE	J	0.71	1.7	PQL	ug/Kg	
	NAPHTHALENE	J	1.2	1.7	PQL	ug/Kg	
SL-544-SA7-SB-0.0-0.5	BENZO(A)PYRENE	J	0.71	1.7	PQL	ug/Kg	J (all detects)
	BENZO(B)FLUORANTHENE	J	1.4	1.7	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	1.2	1.7	PQL	ug/Kg	
	CHRYSENE	J	1.6	1.7	PQL	ug/Kg	
	FLUORANTHENE	J	1.1	1.7	PQL	ug/Kg	
	PHENANTHRENE	J	0.84	1.7	PQL	ug/Kg	
	PYRENE	J	1.1	1.7	PQL	ug/Kg	
SL-840-SA7-SB-0.0-0.5	BENZO(A)ANTHRACENE	J	0.80	1.7	PQL	ug/Kg	J (all detects)
	BENZO(A)PYRENE	J	0.89	1.7	PQL	ug/Kg	
	BENZO(B)FLUORANTHENE	J	1.6	1.7	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	0.77	1.7	PQL	ug/Kg	
	BIS(2-ETHYLHEXYL)PHTHALATE	J	13	19	PQL	ug/Kg	
	Butylbenzylphthalate	J	8.7	19	PQL	ug/Kg	
	CHRYSENE	J	1.5	1.7	PQL	ug/Kg	
	PHENANTHRENE	J	1.1	1.7	PQL	ug/Kg	

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3 Subarea 7

LDC #: 29836A4

SDG #: PH027

Laboratory: Eurofins Lancaster Laboratories

VALIDATION COMPLETENESS WORKSHEET

ADR

Date: 6/11/13

Page: 1 of 1

Reviewer:

2nd Reviewer:

METHOD: Metals (EPA SW 846 Method 6010C/6020A/7000)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	—	Sampling dates: 4/9/13
II.	ICP/MS Tune	—	
III.	Calibration	—	
IV.	Blanks	SW	
V.	ICP Interference Check Sample (ICS) Analysis	—	
VI.	Matrix Spike Analysis	SW	MS/D
VII.	Duplicate Sample Analysis	SW	Dup
VIII.	Laboratory Control Samples (LCS)	A	LCS
IX.	Internal Standard (ICP-MS)	N	
X.	Furnace Atomic Absorption QC	N	
XI.	ICP Serial Dilution	A	
XII.	Sample Result Verification	N	
XIII.	Overall Assessment of Data	N	
XIV.	Field Duplicates	—	(3,4)
XV	Field Blanks	SW	EB=EB-041113 FB=FB-041113 (PH029)

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples: Soil

1	SL-539-SB-SA7-0.0-0.5	11		21		31	
2	SL-542-SB-SA7-0.0-0.5	12		22		32	
3	SL-540-SB-SA7-0.0-0.5	13		23		33	
4	SL-840-SB-SA7-0.0-0.5	14		24		34	
5	SL-544-SB-SA7-0.0-0.5	15		25		35	
6	SL-540-SB-SA7-0.0-0.5MS	16		26		36	
7	SL-540-SB-SA7-0.0-0.5MSD	17		27		37	
8	SL-540-SB-SA7-0.0-0.5DUP	18		28		38	
9		19		29		39	
10		20		30		40	

Notes:

LDC #: 29836A4

VALIDATION FINDINGS WORKSHEET
PB/ICB/CCB QUALIFIED SAMPLES

Page: 1 of 1
Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: Trace metals (EPA SW 864 Method 6010B/6020/7000) Soil preparation factor applied: 100x Reason: B

Sample Concentration units, unless otherwise noted: mg/Kg Associated Samples: 4, 5

Analyte	Maximum PB[a] (mg/Kg)	Maximum PB[a] (ug/L)	Maximum ICB/CCB[a] (ug/L)	Action Level	4	5							
As			5.0	2.5									
Be			2.0	1	0.61	0.46							
Cd			2.0	1	0.073	0.070							
Co			2.1	1.05									
Cu			3.4	1.7									
Ni			2.5	1.25									

Sample Concentration units, unless otherwise noted: mg/Kg Associated Samples: All

Analyte	Maximum PB[a] (mg/Kg)	Maximum PB[a] (ug/L)	Maximum ICB/CCB[a] (ug/L)	Action Level	3								
Mo			4.6	2.3	0.67								

Samples with analyte concentrations within five times the associated ICB, CCB or PB concentration are listed above with the identifications from the Validation Completeness Worksheet. These sample results were qualified as not detected, "U".

Note : a - The listed analyte concentration is the highest ICB, CCB, or PB detected in the analysis of each element.

LDC #: 29836A4

VALIDATION FINDINGS WORKSHEET
Field Blanks

Page: 1 of 1
Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: Trace Metals (EPA SW846 6010B/7000)

Blank units: mg/L **Associated sample units:** mg/Kg Reason: F
Sampling date: 4/11/13 Soil factor applied 100x
Field blank type: (circle one) Field Blank / Rinsate / Other: Associated Samples: All

Analyte	Blank ID	Blank ID	Sample Identification										
	EB-041113	FB-041113	Action Limit	3									
Ca	0.131		65.5										
Cu	0.0035	0.0036	1.8										
Mn	0.0012		0.6										
Mo	0.0143	0.0036	7.15	0.67									
Sn	0.0024		1.2										
Zn	0.0041		2.05										

CIRCLED RESULTS WERE NOT QUALIFIED. ALL RESULTS NOT CIRCLED WERE QUALIFIED BY THE FOLLOWING STATEMENT:
Samples with analyte concentrations within five times the associated field blank concentration are listed above, these sample results were qualified as not detected, "U".

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7/1/1 no qual

QUALITY ASSURANCE SUMMARY
FORM 5A(MS/MSD)
MATRIX SPIKE/MATRIX SPIKE DUPLICATE
SDG No.: PH027
Matrix: SOIL Level (low/med): LOW

RPD OUT (JJ/JJ)

Background Lab Sample ID: 7016768BKG Matrix Spike Lab Sample ID: 7016769MS Matrix Spike Duplicate Lab Sample ID: 7016770MSD
Batch Id(s): P10537C, P10638C

Analyte	Mass	BKG Sample Result	C	MS Sample Result	C	MSD Sample Result	C	MS Spike Added	MSD Spike Added	Units	MS %R	Q	MSD %R	Q	RPD	Q	Control Limit %R	Control Limit RPD	M
Aluminum		12839.0406		16368.8495		16184.0139		194.1748	198.0198	MG/KG	1818		1689		1			20	P
Antimony		0.4950	U	23.4233		23.3564		48.5437	49.5050	MG/KG	48	N	47	N	0		75 - 125	20	P
Arsenic		4.0525		17.7854		18.3663		14.5631	14.8515	MG/KG	94		96		3		75 - 125	20	P
Barium		70.3337		258.2786		266.0614		194.1748	198.0198	MG/KG	97		99		3		75 - 125	20	P
Beryllium		0.5376	B	5.4650		5.5277		4.8544	4.9505	MG/KG	102		101		1		75 - 125	20	P
Boron		0.8218	U	191.5282		209.0099		194.1748	198.0198	MG/KG	99		106		9		75 - 125	20	P
Cadmium		0.0703	B	4.6214		4.9634		4.8544	4.9505	MG/KG	94		99		7		75 - 125	20	P
Calcium		2993.7921		3060.2107		4437.9059		388.3495	396.0396	MG/KG	17		365		37	*		20	P
Chromium		14.7436		34.5883		35.2594		19.4175	19.8020	MG/KG	102		104		2		75 - 125	20	P
Cobalt		4.1416		48.9398		50.6297		48.5437	49.5050	MG/KG	92		94		3		75 - 125	20	P
Copper		6.4861		29.8272		32.0772		24.2718	24.7525	MG/KG	96		103		7		75 - 125	20	P
Iron		18415.1356		17885.8184		17328.9584		97.0874	99.0099	MG/KG	545		1097		3			20	P
Lead		5.0465		18.1689		18.8337		14.5631	14.8515	MG/KG	90		93		4		75 - 125	20	P
Lithium		21.6752		118.9602		120.4485		97.0874	99.0099	MG/KG	100		100		1		75 - 125	20	P
Magnesium		3948.7000		4276.6417		4103.3376		194.1748	198.0198	MG/KG	169		78		4			20	P
Manganese		236.0020		299.7563		268.2604		48.5437	49.5050	MG/KG	131		65		11			20	P
Mercury		0.0101	U	0.1808		0.1821		0.1590	0.1588	MG/KG	114		115		1		65 - 135	20	CV
Molybdenum		0.6495	B	183.1330		189.1446		194.1748	198.0198	MG/KG	94		95		3		75 - 125	20	P
Nickel		8.5198		53.8194		56.3614		48.5437	49.5050	MG/KG	93		97		5		75 - 125	20	P
Phosphorus		385.3980		440.0233		511.1752		97.0874	99.0099	MG/KG	56	N	127	N	15		75 - 125	20	P
Potassium		3443.7762		4230.2893		4088.7614		970.8738	990.0990	MG/KG	81		65	N	3		75 - 125	20	P
Selenium	78	0.0990	B	1.9406		1.8576		1.9417	1.9802	MG/KG	95		89		4		75 - 125	20	MS
Silver	107	0.0232	B	9.4039		10.0634		9.7087	9.9010	MG/KG	97		101		7		75 - 125	20	MS
Sodium		67.0465	B	1014.2903		1030.5248		970.8738	990.0990	MG/KG	98		97		2		75 - 125	20	P
Strontium	88	18.7584		25.9223		30.8911		7.7670	7.9208	MG/KG	92		153	N	17		75 - 125	20	MS
Thallium	203	0.2160		0.6231		0.6622		0.3883	0.3960	MG/KG	105		113		6		75 - 125	20	MS
Tin		2.6673	B	341.0447		353.4564		388.3495	396.0396	MG/KG	87		89		4		75 - 125	20	P
Titanium		858.8386		1173.9282		1064.6743		97.0874	99.0099	MG/KG	325		208		10			20	P
Vanadium		28.7921		80.3922		79.5149		48.5437	49.5050	MG/KG	106		102		1		75 - 125	20	P
Zinc		53.9574		94.4845		103.4109		48.5437	49.5050	MG/KG	83		100		9		75 - 125	20	P
Zirconium		0.8911	B	95.6728		97.0782		97.0874	99.0099	MG/KG	98		97		1		75 - 125	20	P

Note: Results shown are reported on an as-received basis.

METHODS:
P = ICP Atomic Emission Spectrometer CV = Cold Vapor
MS = ICP Mass Spectrometry AF = Cold Vapor Atomic Fluorescence

CONCENTRATION QUALIFIERS:
U= Below MDL, B= Below LOQ
FLAGS:
N = Matrix Spike OOS, * = Duplicate OOS

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QUALITY ASSURANCE SUMMARY
FORM 6
DUPLICATES
SDG No.: PH027
Matrix: SOIL Level (low/med): LOW

Background Lab Sample ID: 7016768BKG
Duplicate Lab Sample ID: 7016771DUP
Batch ID(s): P10537C, P10638C
Concentration Units: MG/KG

Analyte	Mass	Control Limit	Samples (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum			12839.0406		13450.5196		5		P
Antimony			-0.7149	B	-0.7843	B	-9		P
Arsenic		4.0	4.0525		4.4902		10		P
Barium			70.3337		69.8980		1		P
Beryllium			0.5376	B	0.5500	B	2		P
Boron			0.8218	U	0.8137	U			P
Cadmium			0.0703	B	0.1157	B	49	*	P
Calcium			2993.7921		2907.0578		3		P
Chromium		3.0	14.7436		14.2863		3		P
Cobalt		1.0	4.1416		3.7098		11		P
Copper		2.0	6.4861		6.1245		6		P
Iron			18415.1356		17254.5500		7		P
Lead		3.0	5.0465		5.1235		2		P
Lithium			21.6752		20.3706		6		P
Magnesium			3948.7000		3707.6716		6		P
Manganese			236.0020		220.2824		7		P
Mercury			0.0101	U	0.0098	U			CV
Molybdenum			0.6495	B	0.2343	B	94		P
Nickel		2.0	8.5198		8.2373		3		P
Phosphorus			385.3980		365.3902		5		P
Potassium			3443.7762		3286.0049		5		P
Selenium	78		0.0990	B	0.1653	B	50		MS
Silver	107		0.0232	B	0.0211	B	9		MS
Sodium			67.0465	B	65.9608	B	2		P
Strontium	88		18.7584		17.7373		6		MS
Thallium	203	0.2	0.2160		0.2237		4		MS
Tin			2.6673	B	2.5725	B	4		P
Titanium			858.8386		879.7010		2		P
Vanadium			28.7921		28.6049		1		P
Zinc			53.9574		50.3725		7		P
Zirconium			0.8911	B	1.7069	B	63	*	P

NOTE: An asterisk (*) in column "Q" indicates poor duplicate precision (RPD > 20% OR |(S) - (D)| > LOQ for values < 5x LOQ).
The data are considered to be valid because the laboratory control sample is within the control limits. See the Laboratory Control Sample.

No qual (b/c bad difference)

Note: Results shown are reported on an as-received basis.

METHODS:
P = ICP Atomic Emission Spectrometer
MS = ICP Mass Spectrometry
CV = Cold Vapor
AF = Cold Vapor Atomic Fluorescence

CONCENTRATION QUALIFIERS:
U= Below MDL
B= Below LOQ

FLAGS:
* = Duplicate Out of Spec

Enclosure II

Level IV Validation Reports

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name:	Santa Susana Field Laboratory
Collection Date:	April 9, 2013
LDC Report Date:	June 18, 2013
Matrix:	Soil
Parameters:	Hexavalent Chromium
Validation Level:	Level IV
Laboratory:	Eurofins

Sample Delivery Group (SDG): PH027

Sample Identification

SL-540-SB-SA7-0.0-0.5
SL-840-SB-SA7-0.0-0.5
SL-540-SB-SA7-0.0-0.5DUP
SL-540-SB-SA7-0.0-0.5MS

Introduction

This data review covers 4 soil sample listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 7199 for Hexavalent Chromium.

This review follows the Quality Assurance Project Plan for Santa Susana Field Laboratory (SSFL), RCRA Facility Investigation, Surficial Media Operable Unit (March 2009, Revision 4) and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review (January 2010).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a deviation from a specified protocol or is of technical advisory nature.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of presence of the compound at an estimated quantity.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Initial Calibration

All criteria for the initial calibration were met.

III. Calibration Verification

Continuing calibration frequency and analysis criteria were met.

IV. Blanks

Method blanks were reviewed for each matrix as applicable. No hexavalent chromium was found in the initial, continuing and preparation blanks.

Sample EB-041113 (from SDG PH029) was identified as an equipment blank. No hexavalent chromium was found.

Sample FB-041113 (from SDG PH029) was identified as a field blank. No hexavalent chromium was found.

V. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

VI. Duplicates

Duplicate (DUP) sample analyses were reviewed for each matrix as applicable. Results were within QC limits.

VII. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

VIII. Sample Result Verification

All sample result verifications were acceptable.

All analytes reported below the RL and above the MDL were qualified as follows:

Sample	Analyte	Flag	A or P
All samples in SDG PH027	All analytes reported below the RL and above the MDL.	J (all detects)	A

IX. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

X. Field Duplicates

Samples SL-540-SB-SA7-0.0-0.5 and SL-840-SB-SA7-0.0-0.5 were identified as field duplicates. No hexavalent chromium was detected in any of the samples with the following exceptions:

Analyte	Concentration (ug/L)		RPD (Limits)	Flag	A or P
	SL-540-SB-SA7-0.0-0.5	SL-840-SB-SA7-0.0-0.5			
Hexavalent chromium	0.37	0.26	35 (≤50)	-	-

Santa Susana Field Laboratory
Hexavalent Chromium - Data Qualification Summary - SDG PH027

SDG	Sample	Analyte	Flag	A or P	Reason (Code)
PH027	SL-540-SB-SA7-0.0-0.5 SL-840-SB-SA7-0.0-0.5	All analytes reported below the RL and above the MDL.	J (all detects)	A	Sample result verification (Z)

Santa Susana Field Laboratory
Hexavalent Chromium – Laboratory Blank Data Qualification Summary - SDG PH027

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Hexavalent Chromium - Field Blank Data Qualification Summary - SDG PH027

No Sample Data Qualified in this SDG

LDC #: 29836A6

SDG #: PH027

Laboratory: Eurofins Lancaster Laboratories

VALIDATION COMPLETENESS WORKSHEET

Level IV

Date: 6/11/13

Page: 1 of 1

Reviewer: CR

2nd Reviewer: [illegible]

METHOD: (Analyte) Hexavalent Chromium (EPA SW846 Method 7199)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 4/9/13
IIa.	Initial calibration	A	
IIb.	Calibration verification	A	
III.	Blanks	A	
IV	Matrix Spike/Matrix Spike Duplicates	A	MS
V	Duplicates	A	DUP
VI.	Laboratory control samples	A	LCS
VII.	Sample result verification	A	
VIII.	Overall assessment of data	A	
IX.	Field duplicates	SW	(1,2)
X	Field blanks	ND	EB= EB-041113 TB=TB-041113 (both from PH029)

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples: Soil

1	SL-540-SB-SA7-0.0-0.5	11		21		31	
2	SL-840-SB-SA7-0.0-0.5	12		22		32	
3	SL-540-SB-SA7-0.0-0.5DUP	13		23		33	
4	↓ MS	14		24		34	
5		15		25		35	
6		16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Notes:

LDC #: 29836A6

VALIDATION FINDINGS CHECKLIST

Reviewer: QR
2nd Reviewer: ✓

Method: Inorganics (EPA Method See cover)

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. Calibration				
Were all instruments calibrated daily, each set-up time?	✓			
Were the proper number of standards used?	✓			
Were all initial calibration correlation coefficients ≥ 0.995?	✓			
Were all initial and continuing calibration verification %Rs within the 90-110% QC limits?	✓			
Were titrant checks performed as required? (Level IV only)			✓	
Were balance checks performed as required? (Level IV only)			✓	
III. Blanks				
Was a method blank associated with every sample in this SDG?	✓			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.		✓		
IV. Matrix spike/Matrix spike duplicates and Duplicates				
Were a matrix spike (MS) and duplicate (DUP) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD or MS/DUP. Soil / Water.	✓			
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the 75-125 QC limits? If the sample concentration exceeded the spike concentration by a factor of 4 or more, no action was taken.	✓			
Were the MS/MSD or duplicate relative percent differences (RPD) ≤ 20% for waters and ≤ 35% for soil samples? A control limit of ≤ CRDL(≤ 2X CRDL for soil) was used for samples that were ≤ 5X the CRDL, including when only one of the duplicate sample values were ≤ 5X the CRDL.	✓			
V. Laboratory control samples				
Was an LCS anaylzed for this SDG?	✓			
Was an LCS analyzed per extraction batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the 80-120% (85-115% for Method 300.0) QC limits?	✓			
VI. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?		✓		
Were the performance evaluation (PE) samples within the acceptance limits?			✓	

LDC #: 29836F6

VALIDATION FINDINGS CHECKLIST

Reviewer: QR
2nd Reviewer: W

Validation Area	Yes	No	NA	Findings/Comments
VII. Sample Result Verification				
Were RLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
Were detection limits < RL?	✓			
VIII. Overall assessment of data				
Overall assessment of data was found to be acceptable.	✓			
IX. Field duplicates				
Field duplicate pairs were identified in this SDG.	✓			
Target analytes were detected in the field duplicates.	✓			
X. Field blanks				
Field blanks were identified in this SDG.	✓			
Target analytes were detected in the field blanks.		✓		

LDC# 29836A6

VALIDATION FINDINGS WORKSHEET
Field Duplicates

Reviewer: [illegible]
2nd Reviewer: [illegible]

Inorganics: Method See Cover

Analyte	Concentration (mg/Kg)		RPD (≤50)	Qual. Parent Only
	1	2		
Hexavalent Chromium	0.37	0.26	35	

\\LDCFILESERVER\Validation\FIELD DUPLICATES\FD_inorganic\29836A6.wpd

LDC #: 0F183696

Validation Findings Worksheet
Initial and Continuing Calibration Calculation Verification

Page: 1 of 1
Reviewer: [illegible]
2nd Reviewer: [illegible]

Method: Inorganics, Method See Cover

The correlation coefficient (r) for the calibration of Cr6+ was recalculated. Calibration date: 4/19/13

An initial or continuing calibration verification percent recovery (%R) was recalculated for each type of analysis using the following formula:

%R = Found X 100 / True

Where, Found = concentration of each analyte measured in the analysis of the ICV or CCV solution
True = concentration of each analyte in the ICV or CCV source

Type of analysis	Analyte	Standard	Conc. (mg/L)	Area	Recalculated r or r^2	Reported r or r^2	Acceptable (Y/N)
Initial calibration	Cr6+	s1	10	0.11468	0.9999	0.9990	Y
		s2	50	0.565937			
		s3	100	1.134329			
		s4	200	2.248478			
		s5	300	3.42253			
Calibration verification		ICV	50	50.4145	101	101	
Calibration verification		CCV	200	194.7139	97	97	
Calibration verification				188.9013	94	94	

Comments: Refer to Calibration Verification findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 09836A6

VALIDATION FINDINGS WORKSHEET
Level IV Recalculation Worksheet

Page: 1 of 1
Reviewer: CR
2nd Reviewer: [illegible]

METHOD: Inorganics, Method See cover

Percent recoveries (%R) for a laboratory control sample and a matrix spike sample were recalculated using the following formula:

$\%R = \frac{Found}{True} \times 100$ Where, Found = concentration of each analyte measured in the analysis of the sample. For the matrix spike calculation, Found = SSR (spiked sample result) - SR (sample result).
True = concentration of each analyte in the source.

A sample and duplicate relative percent difference (RPD) was recalculated using the following formula:

$RPD = \frac{|S-D|}{(S+D)/2} \times 100$ Where, S = Original sample concentration
D = Duplicate sample concentration

Sample ID	Type of Analysis	Element	Found / S (units)	True / D (units)	Recalculated %R / RPD	Reported %R / RPD	Acceptable (Y/N)
LCS	Laboratory control sample	↑	4.38	5	88	88	Y
4	Matrix spike sample	Cr6+	(SSR-SR) 34.92	39.8	88	88	↓
3	Duplicate sample	↓	0.36	0.43	19	19	↓

Comments: Refer to appropriate worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

TOTCLC.6

LDC #: 29836B6

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Reviewer: QR
2nd reviewer: [illegible]

METHOD: Inorganics, Method See cover

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Have results been reported and calculated correctly?
Y N N/A Are results within the calibrated range of the instruments?
Y N N/A Are all detection limits below the CRQL?

Compound (analyte) results for Cr^{6+} reported with a positive detect were recalculated and verified using the following equation:

Concentration =

Area (87.89) + 0.413

Recalculation:

$$\frac{(0.0957(87.89)+0.413)(100mL)}{0.967(2.48g)(1000)} = 0.368 mg/kg$$

#	Sample ID	Analyte	Reported Concentration (mg/kg)	Calculated Concentration (mg/kg)	Acceptable (Y/N)
	1	Cr^{6+}	0.37	0.37	Y

Note:

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name:	Santa Susana Field Laboratory
Collection Date:	April 9, 2013
LDC Report Date:	June 18, 2013
Matrix:	Soil
Parameters:	Formaldehyde
Validation Level:	Level IV
Laboratory:	Eurofins
Sample Delivery Group (SDG):	PT027

Sample Identification

SL-540-SB-SA7-0.0-0.5
SL-840-SB-SA7-0.0-0.5
SL-540-SB-SA7-0.0-0.5MS
SL-540-SB-SA7-0.0-0.5MSD

Introduction

This data review covers 4 soil samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8315A for Formaldehyde.

This review follows the Quality Assurance Project Plan for Santa Susana Field Laboratory (SSFL), RCRA Facility Investigation, Surficial Media Operable Unit (March 2009, Revision 4) and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of presence of the compound at an estimated quantity.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Initial Calibration

Initial calibration of compounds was performed as required by the method.

A curve fit, based on the initial calibration, was established for quantitation. The coefficient of determination (r^2) was greater than or equal to 0.990 .

Retention time windows were evaluated and considered technically acceptable.

III. Calibration Verification

Calibration verification was performed at required frequencies. The percent differences (%D) of amounts in continuing standard mixtures were within the 20.0% QC limits.

The percent differences (%D) of the second source calibration standard were less than or equal to 20.0% for all compounds.

Retention times (RT) of all compounds in the calibration standards were within QC limits.

IV. Blanks

Method blanks were reviewed for each matrix as applicable. No formaldehyde was found in the method blanks.

Sample EB-041213 (from SDG PH030) was identified as an equipment blank. No formaldehyde was found.

Sample FB-041113 (from SDG PH029) was identified as a field blank. No formaldehyde was found.

V. Surrogate Recovery

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VI. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VII. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

VIII. Target Compound Identification

All target compound identifications were within validation criteria.

IX. Compound Quantitation

All compound quantitations were within validation criteria.

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG PT027	All compounds reported below the RL.	J (all detects)	A

X. System Performance

The system performance was acceptable.

XI. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XII. Field Duplicates

Samples SL-540-SB-SA7-0.0-0.5 and SL-840-SB-SA7-0.0-0.5 were identified as field duplicates. No formaldehyde was detected in any of the samples.

Santa Susana Field Laboratory
Formaldehyde - Data Qualification Summary - SDG PT027

SDG	Sample	Compound	Flag	A or P	Reason (Code)
PT027	SL-540-SB-SA7-0.0-0.5 SL-840-SB-SA7-0.0-0.5	All compounds reported below the RL.	J (all detects)	A	Compound quantitation (Z)

Santa Susana Field Laboratory
Formaldehyde - Laboratory Blank Data Qualification Summary - SDG PT027

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Formaldehyde - Field Blank Data Qualification Summary - SDG PT027

No Sample Data Qualified in this SDG

LDC #: 29836A71 **VALIDATION COMPLETENESS WORKSHEET** Date: 6/12/13

SDG #: PT027 Level IV Page: 1 of 1

Laboratory: Eurofins Lancaster Laboratories Reviewer: [illegible]

2nd Reviewer: [illegible]

METHOD: HPLC Formaldehyde (EPA SW 846 Method 8315A)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 4/9/13
II	Initial calibration	A	1,2
III.	Calibration verification/ICV	A	ICV/CCV ≤ 20
IV.	Blanks	A	
V	Surrogate recovery	A	
VI.	Matrix spike/Matrix spike duplicates	A	
VII.	Laboratory control samples	A	LCS
VIII.	Target compound identification	A	
IX.	Compound quantitation/RL/LOQ/LODs	A	
X.	System Performance	A	
XI.	Overall assessment of data	A	
XII.	Field duplicates	ND	D = 1,2
XIII.	Field blanks	ND	EB = EB-041213 SDG # PH030 FB = FB-041113 SDG # PH029

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples:

	SOIL						
1	SL-540-SB-SA7-0.0-0.5	11	PBLK02105	21		31	
2	SL-840-SB-SA7-0.0-0.5	12		22		32	
3	SL-540-SB-SA7-0.0-0.5MS	13		23		33	
4	SL-540-SB-SA7-0.0-0.5MSD	14		24		34	
5		15		25		35	
6		16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Notes:

LDC #: 29836A71

VALIDATION FINDINGS CHECKLIST

Reviewer: FT
2nd Reviewer: A

Method: ✓ GC ____ HPLC

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	✓			
Were all percent relative standard deviations (%RSD) ≤ 20%?		✓		
Was a curve fit used for evaluation?	✓			
Did the initial calibration meet the curve fit acceptance criteria of ≥ 0.990?	✓			
Were the RT windows properly established?	✓			
IV. Continuing calibration				
Was a continuing calibration analyzed daily?	✓			
Were all percent differences (%D) ≤ 20%.0 or percent recoveries 80-120%?	✓			
Were all the retention times within the acceptance windows?	✓			
V. Blanks				
Was a method blank associated with every sample in this SDG?	✓			
Was a method blank analyzed for each matrix and concentration?	✓			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.		✓		
VI. Surrogate spikes				
Were all surrogate %R within the QC limits?	✓			
If the percent recovery (%R) for one or more surrogates was out of QC limits, was a reanalysis performed to confirm samples with %R outside of criteria?			✓	
VII. Matrix spike/Matrix spike duplicates				
Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.	✓			
Was a MS/MSD analyzed every 20 samples of each matrix?	✓			
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?	✓			
VIII. Laboratory control samples				
Was an LCS analyzed for this SDG?	✓			
Was an LCS analyzed per extraction batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	✓			
IX. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?			✓	
Were the performance evaluation (PE) samples within the acceptance limits?			✓	

LDC #: 29836471

VALIDATION FINDINGS CHECKLIST

Reviewer: FT
2nd Reviewer: A

Validation Area	Yes	No	NA	Findings/Comments
X. Target compound identification				
Were the retention times of reported detects within the RT windows?			✓	
XI. Compound quantitation/CRQLs				
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
XII. System performance				
System performance was found to be acceptable.	✓			
XIII. Overall assessment of data				
Overall assessment of data was found to be acceptable.	✓			
XIV. Field duplicates				
Field duplicate pairs were identified in this SDG.	✓	~~✓~~		FT
Target compounds were detected in the field duplicates.		✓		
XV. Field blanks				
Field blanks were identified in this SDG.	✓			
Target compounds were detected in the field blanks.		✓		

LDC # 29836471

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Reviewer: F2
2nd Reviewer: K

METHOD: method 8315A

Parameter: formaldehyde

Date	Column	Compound	y	x	
04/16/2013	ns	formaldehyde	34928.70	500.0	
			56101.30	1000.0	
			94476.80	2000.0	
			265167.00	6000.0	
			470716.70	10000.0	

Regression Output:		Regression Output:	Reported	
Constant		6788.30445		
Std Err of Y Est		10771.03283		
R Squared		0.99743		0.99500
No. of Observations		5.00000		
Degrees of Freedom		3.00000		
X Coefficient(s)	4.551E+001	0.25		
Std Err of Coef.	1.333932	0.04		

LDC #: 29836A71

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Page: 1 of 1
Reviewer: FZ
2nd Reviewer: [illegible]

METHOD: GC _____ HPLC ✓

The percent difference (%D) of the initial calibration average Calibration Factors (CF) and the continuing calibration CF were recalculated for the compounds identified below using the following calculation:

% Difference = 100 * (ave. CF -CF)/ave.CF

Where: ave. CF = initial calibration average CF
CF = continuing calibration CF
A = Area of compound
C = Concentration of compound

#	Standard ID	Calibration Date	Compound	Average CF(Ical)/ CCV Conc.	Reported CF/ Conc. CCV	Recalculated CF/ Conc. CCV	Reported %D	Recalculated %D
1	CCV 17:11	4/16/13	Formaldehyde	2000.00	1860.66	1860.66	7	7
	CCV 18:51	4/16/13	↓	2000.00	1811.43	1811.43	9	9
2								
3								
4								

Comments: Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 29836A71

VALIDATION FINDINGS WORKSHEET
Surrogate Results Verification

Page: 1 of 1
Reviewer: FT
2nd reviewer: [illegible]

METHOD: __ GC ✓ HPLC

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery: SF/SS * 100

Where: SF = Surrogate Found
SS = Surrogate Spiked

Sample ID: #1

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	
Butyraldehyde	NS	790U	703.83	89	89	0

Sample ID:

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	

Sample ID:

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	

LDC #: 29836A71

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates Results Verification

Reviewer: KT
2nd Reviewer: [illegible]

METHOD: __ GC __HPLC

The percent recoveries (%R) and relative percent differences (RPD) of the matrix spike and matrix spike duplicate were recalculated for the compounds identified below using the following calculation:

%Recovery = 100 * (SSC - SC)/SA Where SSC = Spiked sample concentration SC = Sample concentration
SA = Spike added
RPD =(({SSCMS - SSCMSD} * 2) / (SSCMS + SSCMSD))*100 MS = Matrix spike MSD = Matrix spike duplicate

MS/MSD samples: 3 + 4

Compound	Spike Added (ug/kg)		Sample Conc. (ug/kg)	Spike Sample Concentration (ug/kg)		Matrix spike Percent Recovery		Matrix Spike Duplicate Percent Recovery		MS/MSD RPD	
	MS	MSD	---	MS	MSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.
Gasoline (8015)											
Diesel (8015)											
Benzene (8021B)											
Methane (RSK-175)											
2,4-D (8151)											
Dinoseb (8151)											
Naphthalene (8310)											
Anthracene (8310)											
HMX (8330)											
2,4,6-Trinitrotoluene (8330)											
Formaldehyde	10000	10000	ND	10654.53	10348.66	107	107	103	103	3	3

Comments: Refer to Matrix Spike/Matrix Spike Duplicates findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 29836471

VALIDATION FINDINGS WORKSHEET

Laboratory Control Sample/Laboratory Control Sample Duplicates Results Verification

Page: 1 of 1
Reviewer: FT
2nd Reviewer: [illegible]

METHOD: __ GC ✓ HPLC

The percent recoveries (%R) and relative percent differences (RPD) of the laboratory control sample and laboratory control sample duplicate were recalculated for the compounds identified below using the following calculation:

%Recovery = 100 * (SSC - SC)/SA

RPD =(({SSCLCS - SSCLCSD} * 2) / (SSCLCS + SSCLCSD))*100

Where SSC = Spiked sample concentration
SA = Spike added
LCS = Laboratory Control Sample
SC = Sample concentration
LCSD = Laboratory Control Sample duplicate

LCS/LCSD samples: LCS02105

Compound	Spike Added (ug/kg)		Sample Conc. (ug/kg)	Spike Sample Concentration (ug/kg)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	---	LCS	LCSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.
Gasoline (8015)											
Diesel (8015)											
Benzene (8021B)											
Methane (RSK-175)											
2,4-D (8151)											
Dinoseb (8151)											
Naphthalene (8310)											
Anthracene (8310)											
HMX (8330)											
2,4,6-Trinitrotoluene (8330)											
Formaldehyde	10000	NA	ND	11705.07	NA	117	117	NA	—		

Comments: Refer to Laboratory Control Sample/Laboratory Control Sample Duplicate findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 29836A71

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Page: 1 of 1
Reviewer: FT
2nd Reviewer: [illegible]

METHOD: __ GC ✓ HPLC

Y N N/A Were all reported results recalculated and verified for all level IV samples?
Y N N/A Were all recalculated results for detected target compounds within 10% of the reported results?

Concentration= (A)(Fv)(Df) / (RF)(Vs or Ws)(%S/100)

A= Area or height of the compound to be measured
Fv= Final Volume of extract
Df= Dilution Factor
RF= Average response factor of the compound In the initial calibration
Vs= Initial volume of the sample
Ws= Initial weight of the sample
%S= Percent Solid

Example:

Sample ID._____ Compound Name _____

Concentration =_____

#	Sample ID	Compound	Reported Concentrations ( )	Recalculated Results Concentrations ( )	Qualifications

Comments: _____

SAMPCALew.wpd

Attachment I

Sample ID Cross Reference and Data Review Level

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
09-Apr-2013	SL-547-SA7-SB-0.0-0.5	7018431	N	3050B	6010C	III
09-Apr-2013	SL-547-SA7-SB-0.0-0.5	7018431	N	3050B	6020A	III
09-Apr-2013	SL-547-SA7-SB-0.0-0.5	7018431	N	3546	8015M	III
09-Apr-2013	SL-547-SA7-SB-0.0-0.5	7018431	N	3546	8082A	III
09-Apr-2013	SL-547-SA7-SB-0.0-0.5	7018431	N	3546	8270D SIM	III
09-Apr-2013	SL-547-SA7-SB-0.0-0.5	7018431	N	METHOD	1613B	III
09-Apr-2013	SL-547-SA7-SB-0.0-0.5	7018431	N	METHOD	7471B	III
09-Apr-2013	SL-547-SA7-SB-0.0-0.5DUP	P018431D220528	DUP	3050B	6010C	III
09-Apr-2013	SL-547-SA7-SB-0.0-0.5MSD	P018431M220536	MSD	3050B	6010C	III
09-Apr-2013	SL-547-SA7-SB-0.0-0.5MS	P018431R220532	MS	3050B	6010C	III
10-Apr-2013	TB-041013	7018435	TB	5030B	8015M	III
10-Apr-2013	SL-552-SA7-SB-0.0-0.5	7018432	N	3050B	6010C	III
10-Apr-2013	SL-552-SA7-SB-0.0-0.5	7018432	N	3050B	6020A	III
10-Apr-2013	SL-552-SA7-SB-0.0-0.5	7018432	N	3546	8015M	III
10-Apr-2013	SL-552-SA7-SB-0.0-0.5	7018432	N	3546	8082A	III
10-Apr-2013	SL-552-SA7-SB-0.0-0.5	7018432	N	3546	8270D SIM	III
10-Apr-2013	SL-552-SA7-SB-0.0-0.5	7018432	N	METHOD	1613B	III
10-Apr-2013	SL-552-SA7-SB-0.0-0.5	7018432	N	METHOD	7471B	III
10-Apr-2013	SL-551-SA7-SB-0.0-0.5	7018433	N	3050B	6010C	III
10-Apr-2013	SL-551-SA7-SB-0.0-0.5	7018433	N	3050B	6020A	III
10-Apr-2013	SL-551-SA7-SB-0.0-0.5	7018433	N	3546	8015M	III
10-Apr-2013	SL-551-SA7-SB-0.0-0.5	7018433	N	3546	8082A	III
10-Apr-2013	SL-551-SA7-SB-0.0-0.5	7018433	N	3546	8270D SIM	III
10-Apr-2013	SL-551-SA7-SB-0.0-0.5	7018433	N	METHOD	1613B	III
10-Apr-2013	SL-551-SA7-SB-0.0-0.5	7018433	N	METHOD	7471B	III
10-Apr-2013	SL-551-SA7-SB-2.0-3.0	7018434	N	3050B	6010C	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
10-Apr-2013	SL-551-SA7-SB-2.0-3.0	7018434	N	3050B	6020A	III
10-Apr-2013	SL-551-SA7-SB-2.0-3.0	7018434	N	3546	8015M	III
10-Apr-2013	SL-551-SA7-SB-2.0-3.0	7018434	N	3546	8082A	III
10-Apr-2013	SL-551-SA7-SB-2.0-3.0	7018434	N	3546	8270D SIM	III
10-Apr-2013	SL-551-SA7-SB-2.0-3.0	7018434	N	5035A	8015M	III
10-Apr-2013	SL-551-SA7-SB-2.0-3.0	7018434	N	METHOD	1613B	III
10-Apr-2013	SL-551-SA7-SB-2.0-3.0	7018434	N	METHOD	7471B	III
10-Apr-2013	SL-548-SA7-SB-0.0-0.5	7018436	N	3050B	6010C	III
10-Apr-2013	SL-548-SA7-SB-0.0-0.5	7018436	N	3050B	6020A	III
10-Apr-2013	SL-548-SA7-SB-0.0-0.5	7018436	N	3546	8015M	III
10-Apr-2013	SL-548-SA7-SB-0.0-0.5	7018436	N	3546	8082A	III
10-Apr-2013	SL-548-SA7-SB-0.0-0.5	7018436	N	3546	8270D SIM	III
10-Apr-2013	SL-548-SA7-SB-0.0-0.5	7018436	N	METHOD	1613B	III
10-Apr-2013	SL-548-SA7-SB-0.0-0.5	7018436	N	METHOD	7471B	III
10-Apr-2013	SL-549-SA7-SB-0.0-0.5	7018437	N	3050B	6010C	III
10-Apr-2013	SL-549-SA7-SB-0.0-0.5	7018437	N	3050B	6020A	III
10-Apr-2013	SL-549-SA7-SB-0.0-0.5	7018437	N	3546	8015M	III
10-Apr-2013	SL-549-SA7-SB-0.0-0.5	7018437	N	3546	8082A	III
10-Apr-2013	SL-549-SA7-SB-0.0-0.5	7018437	N	3546	8270D SIM	III
10-Apr-2013	SL-549-SA7-SB-0.0-0.5	7018437	N	METHOD	1613B	III
10-Apr-2013	SL-549-SA7-SB-0.0-0.5	7018437	N	METHOD	7471B	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Attachment II

Overall Data Qualification Summary

Data Qualifier Summary

Lab Reporting Batch ID: PH028 **Laboratory: LL**

EDD Filename: PrepPH028_v1 **eQAPP Name: CDM_SSFL_130621_Lan**

Method Category: **METALS**

Method: **6010C** ***Matrix:*** **SO**

Sample ID: **SL-547-SA7-SB-0.0-0.5** ***Collected:*** **4/9/2013 3:10:00 PM** ***Analysis Type:*** **REA/TOT** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	2.59	J	0.832	MDL	10.0	PQL	mg/Kg	J	Z

Sample ID: **SL-547-SA7-SB-0.0-0.5** ***Collected:*** **4/9/2013 3:10:00 PM** ***Analysis Type:*** **RES/TOT** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	4.01	U	0.501	MDL	4.01	PQL	mg/Kg	UJ	Q
ARSENIC	3.78	J	0.331	MDL	4.01	PQL	mg/Kg	J	Z
BERYLLIUM	0.475	J	0.0672	MDL	1.00	PQL	mg/Kg	U	B
CADMIUM	0.0531	J	0.0331	MDL	1.00	PQL	mg/Kg	U	B
CALCIUM	1360		4.03	MDL	20.0	PQL	mg/Kg	J	E
POTASSIUM	3600		13.5	MDL	100	PQL	mg/Kg	J	Q
SODIUM	66.5	J	16.7	MDL	100	PQL	mg/Kg	J	Z
TIN	2.60	J	0.221	MDL	10.0	PQL	mg/Kg	U	B

Sample ID: **SL-548-SA7-SB-0.0-0.5** ***Collected:*** **4/10/2013 1:50:00** ***Analysis Type:*** **REA2/TOT** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	1.41	J	0.498	MDL	3.99	PQL	mg/Kg	J	Z, Q
ARSENIC	1.72	J	0.329	MDL	3.99	PQL	mg/Kg	J	Z
BERYLLIUM	0.408	J	0.0668	MDL	0.996	PQL	mg/Kg	J	Z
BORON	4.15	J	0.827	MDL	9.96	PQL	mg/Kg	J	Z
CADMIUM	0.448	J	0.0329	MDL	0.996	PQL	mg/Kg	J	Z
CALCIUM	2230		4.01	MDL	19.9	PQL	mg/Kg	J	E
MOLYBDENUM	0.403	J	0.169	MDL	1.99	PQL	mg/Kg	J	Z
PHOSPHORUS	406		0.508	MDL	9.96	PQL	mg/Kg	J	Q, Q
POTASSIUM	3750		13.5	MDL	99.6	PQL	mg/Kg	J	Q
SODIUM	56.7	J	16.6	MDL	99.6	PQL	mg/Kg	J	Z
TIN	2.72	J	0.219	MDL	9.96	PQL	mg/Kg	U	B

Sample ID: **SL-549-SA7-SB-0.0-0.5** ***Collected:*** **4/10/2013 2:40:00** ***Analysis Type:*** **RES/TOT** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	4.08	U	0.510	MDL	4.08	PQL	mg/Kg	UJ	Q
BERYLLIUM	0.528	J	0.0683	MDL	1.02	PQL	mg/Kg	U	B
CADMIUM	0.175	J	0.0336	MDL	1.02	PQL	mg/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3 Subarea 7

Data Qualifier Summary

Lab Reporting Batch ID: PH028 **Laboratory: LL**

EDD Filename: PrepPH028_v1 **eQAPP Name: CDM_SSFL_130621_Lan**

Method Category: **METALS**

Method: **6010C** ***Matrix:*** **SO**

Sample ID: **SL-549-SA7-SB-0.0-0.5** ***Collected:*** **4/10/2013 2:40:00** ***Analysis Type:*** **RES/TOT** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CALCIUM	6380		4.10	MDL	20.4	PQL	mg/Kg	J	E
PHOSPHORUS	438		0.520	MDL	10.2	PQL	mg/Kg	J	Q, Q
POTASSIUM	4180		13.8	MDL	102	PQL	mg/Kg	J	Q
SODIUM	62.7	J	17.0	MDL	102	PQL	mg/Kg	J	Z
TIN	2.69	J	0.224	MDL	10.2	PQL	mg/Kg	U	B

Sample ID: **SL-551-SA7-SB-0.0-0.5** ***Collected:*** **4/10/2013 9:55:00** ***Analysis Type:*** **RES/TOT** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	4.05	U	0.506	MDL	4.05	PQL	mg/Kg	UJ	Q
ARSENIC	4.03	J	0.334	MDL	4.05	PQL	mg/Kg	J	Z
BERYLLIUM	0.509	J	0.0679	MDL	1.01	PQL	mg/Kg	U	B
CADMIUM	0.164	J	0.0334	MDL	1.01	PQL	mg/Kg	U	B
CALCIUM	2720		4.07	MDL	20.3	PQL	mg/Kg	J	E
PHOSPHORUS	405		0.517	MDL	10.1	PQL	mg/Kg	J	Q, Q
POTASSIUM	3880		13.7	MDL	101	PQL	mg/Kg	J	Q
SODIUM	65.0	J	16.9	MDL	101	PQL	mg/Kg	J	Z
TIN	2.56	J	0.223	MDL	10.1	PQL	mg/Kg	U	B

Sample ID: **SL-551-SA7-SB-2.0-3.0** ***Collected:*** **4/10/2013 11:00:00** ***Analysis Type:*** **RES/TOT** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	4.16	U	0.520	MDL	4.16	PQL	mg/Kg	UJ	Q
ARSENIC	4.02	J	0.343	MDL	4.16	PQL	mg/Kg	J	Z
BERYLLIUM	0.467	J	0.0696	MDL	1.04	PQL	mg/Kg	U	B
CADMIUM	0.142	J	0.0343	MDL	1.04	PQL	mg/Kg	U	B
CALCIUM	4750		4.18	MDL	20.8	PQL	mg/Kg	J	E
PHOSPHORUS	366		0.530	MDL	10.4	PQL	mg/Kg	J	Q, Q
POTASSIUM	3280		14.0	MDL	104	PQL	mg/Kg	J	Q
SODIUM	62.5	J	17.4	MDL	104	PQL	mg/Kg	J	Z
TIN	2.59	J	0.229	MDL	10.4	PQL	mg/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3 Subarea 7

Data Qualifier Summary

Lab Reporting Batch ID: PH028 **Laboratory: LL**

EDD Filename: PrepPH028_v1 **eQAPP Name: CDM_SSFL_130621_Lan**

Method Category: METALS

Method: 6010C **Matrix: SO**

Sample ID: SL-552-SA7-SB-0.0-0.5 *Collected:* 4/10/2013 9:05:00 *Analysis Type:* RES/TOT *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	4.04	U	0.505	MDL	4.04	PQL	mg/Kg	UJ	Q
ARSENIC	3.35	J	0.334	MDL	4.04	PQL	mg/Kg	J	Z
BERYLLIUM	0.442	J	0.0677	MDL	1.01	PQL	mg/Kg	U	B
CADMIUM	0.111	J	0.0334	MDL	1.01	PQL	mg/Kg	U	B
CALCIUM	3470		4.06	MDL	20.2	PQL	mg/Kg	J	E
PHOSPHORUS	430		0.515	MDL	10.1	PQL	mg/Kg	J	Q, Q
POTASSIUM	2950		13.6	MDL	101	PQL	mg/Kg	J	Q
SODIUM	86.7	J	16.9	MDL	101	PQL	mg/Kg	J	Z
TIN	2.36	J	0.222	MDL	10.1	PQL	mg/Kg	U	B

Method Category: METALS

Method: 6020A **Matrix: SO**

Sample ID: SL-547-SA7-SB-0.0-0.5 *Collected:* 4/9/2013 3:10:00 PM *Analysis Type:* RES/TOT *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
STRONTIUM	7.03		0.0341	MDL	0.401	PQL	mg/Kg	J	Q

Sample ID: SL-548-SA7-SB-0.0-0.5 *Collected:* 4/10/2013 1:50:00 *Analysis Type:* REA2/TOT *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SILVER	0.0315	J	0.0199	MDL	0.199	PQL	mg/Kg	J	Z
STRONTIUM	8.13		0.0339	MDL	0.399	PQL	mg/Kg	J	Q

Sample ID: SL-549-SA7-SB-0.0-0.5 *Collected:* 4/10/2013 2:40:00 *Analysis Type:* REA/TOT *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.196	J	0.102	MDL	0.408	PQL	mg/Kg	J	Z

Sample ID: SL-549-SA7-SB-0.0-0.5 *Collected:* 4/10/2013 2:40:00 *Analysis Type:* RES/TOT *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SILVER	0.0306	J	0.0204	MDL	0.204	PQL	mg/Kg	J	Z
STRONTIUM	12.5		0.0347	MDL	0.408	PQL	mg/Kg	J	Q

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3 Subarea 7

Data Qualifier Summary

Lab Reporting Batch ID: PH028 **Laboratory: LL**

EDD Filename: PrepPH028_v1 **eQAPP Name: CDM_SSFL_130621_Lan**

Method Category: METALS

Method: 6020A **Matrix: SO**

Sample ID: SL-551-SA7-SB-0.0-0.5 *Collected:* 4/10/2013 9:55:00 *Analysis Type:* RES/TOT *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SILVER	0.0411	J	0.0203	MDL	0.203	PQL	mg/Kg	J	Z
STRONTIUM	12.3		0.0344	MDL	0.405	PQL	mg/Kg	J	Q

Sample ID: SL-551-SA7-SB-2.0-3.0 *Collected:* 4/10/2013 11:00:00 *Analysis Type:* RES/TOT *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
STRONTIUM	11.3		0.0353	MDL	0.416	PQL	mg/Kg	J	Q

Sample ID: SL-552-SA7-SB-0.0-0.5 *Collected:* 4/10/2013 9:05:00 *Analysis Type:* REA/TOT *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.106	J	0.101	MDL	0.404	PQL	mg/Kg	J	Z

Sample ID: SL-552-SA7-SB-0.0-0.5 *Collected:* 4/10/2013 9:05:00 *Analysis Type:* RES/TOT *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
STRONTIUM	10.8		0.0344	MDL	0.404	PQL	mg/Kg	J	Q

Method Category: METALS

Method: 7471B **Matrix: SO**

Sample ID: SL-551-SA7-SB-0.0-0.5 *Collected:* 4/10/2013 9:55:00 *Analysis Type:* RES/TOT *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0110	J	0.0101	MDL	0.0196	PQL	mg/Kg	J	Z

Method Category: SVOA

Method: 1613B **Matrix: SO**

Sample ID: SL-547-SA7-SB-0.0-0.5 *Collected:* 4/9/2013 3:10:00 PM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDF	1.81	JB	0.0302	MDL	5.11	PQL	ng/Kg	J	Z
1,2,3,4,7,8,9-HPCDF	0.435	JB	0.0703	MDL	5.11	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HxCDD	0.315	JB	0.0449	MDL	5.11	PQL	ng/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3 Subarea 7

Data Qualifier Summary

Lab Reporting Batch ID: PH028 **Laboratory: LL**

EDD Filename: PrepPH028_v1 **eQAPP Name: CDM_SSFL_130621_Lan**

Method Category: **SVOA**

Method: **1613B** ***Matrix:*** **SO**

Sample ID: **SL-547-SA7-SB-0.0-0.5** ***Collected:*** **4/9/2013 3:10:00 PM** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,7,8-HXCDF	0.321	JB	0.0517	MDL	5.11	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDD	1.35	J	0.0472	MDL	5.11	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.512	JB	0.0401	MDL	5.11	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDD	0.687	JB	0.0463	MDL	5.11	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.243	JB	0.0703	MDL	5.11	PQL	ng/Kg	U	B
1,2,3,7,8-PECDD	0.263	JBQ	0.0513	MDL	5.11	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	0.365	JBQ	0.0324	MDL	5.11	PQL	ng/Kg	J	Z
2,3,4,6,7,8-HXCDF	0.445	JB	0.0472	MDL	5.11	PQL	ng/Kg	J	Z
2,3,4,7,8-PECDF	0.485	JB	0.0361	MDL	5.11	PQL	ng/Kg	J	Z
2,3,7,8-TCDD	0.105	JQ	0.0394	MDL	1.02	PQL	ng/Kg	J	Z
2,3,7,8-TCDF	0.183	J	0.0641	MDL	1.02	PQL	ng/Kg	J	Z
OCDF	3.66	JB	0.116	MDL	10.2	PQL	ng/Kg	J	Z

Sample ID: **SL-548-SA7-SB-0.0-0.5** ***Collected:*** **4/10/2013 1:50:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,7,8,9-HPCDF	1.05	JB	0.0492	MDL	4.97	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HxCDD	1.02	JBQ	0.0563	MDL	4.97	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HXCDF	0.516	JB	0.0548	MDL	4.97	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDD	3.24	J	0.0595	MDL	4.97	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.595	JBQ	0.0471	MDL	4.97	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDD	2.10	JBQ	0.0577	MDL	4.97	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDD	0.596	JB	0.0665	MDL	4.97	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	0.235	JBQ	0.0325	MDL	4.97	PQL	ng/Kg	J	Z
2,3,4,6,7,8-HXCDF	0.909	JBQ	0.0504	MDL	4.97	PQL	ng/Kg	J	Z
2,3,4,7,8-PECDF	0.255	JBQ	0.0338	MDL	4.97	PQL	ng/Kg	U	B
2,3,7,8-TCDD	0.0614	JQ	0.0495	MDL	0.994	PQL	ng/Kg	J	Z

Sample ID: **SL-549-SA7-SB-0.0-0.5** ***Collected:*** **4/10/2013 2:40:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDF	1.08	JB	0.0161	MDL	4.92	PQL	ng/Kg	J	Z
1,2,3,4,7,8,9-HPCDF	0.0925	JBQ	0.0298	MDL	4.92	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.231	JB	0.0447	MDL	4.92	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HXCDF	0.133	JBQ	0.0357	MDL	4.92	PQL	ng/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3 Subarea 7

Data Qualifier Summary

Lab Reporting Batch ID: PH028 **Laboratory: LL**

EDD Filename: PrepPH028_v1 **eQAPP Name: CDM_SSFL_130621_Lan**

Method Category: SVOA

Method: 1613B **Matrix:** SO

Sample ID: SL-549-SA7-SB-0.0-0.5 **Collected:** 4/10/2013 2:40:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,6,7,8-HXCDD	0.597	J	0.0470	MDL	4.92	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.168	JB	0.0302	MDL	4.92	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDD	0.492	JB	0.0436	MDL	4.92	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDD	0.156	JB	0.0371	MDL	4.92	PQL	ng/Kg	U	B
1,2,3,7,8-PECDF	0.355	JB	0.0257	MDL	4.92	PQL	ng/Kg	J	Z
2,3,4,6,7,8-HXCDF	0.147	JBQ	0.0312	MDL	4.92	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.263	JBQ	0.0263	MDL	4.92	PQL	ng/Kg	U	B
2,3,7,8-TCDF	0.109	J	0.0578	MDL	0.984	PQL	ng/Kg	J	Z
OCDF	2.07	JB	0.0480	MDL	9.84	PQL	ng/Kg	J	Z

Sample ID: SL-551-SA7-SB-0.0-0.5 **Collected:** 4/10/2013 9:55:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDF	3.99	JB	0.0194	MDL	5.14	PQL	ng/Kg	J	Z
1,2,3,4,7,8,9-HPCDF	0.574	JB	0.0472	MDL	5.14	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HxCDD	0.417	JB	0.0358	MDL	5.14	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HXCDF	0.300	JB	0.0351	MDL	5.14	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDD	1.12	JQ	0.0369	MDL	5.14	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.276	JB	0.0272	MDL	5.14	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDD	0.704	JB	0.0361	MDL	5.14	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.123	JBQ	0.0468	MDL	5.14	PQL	ng/Kg	U	B
1,2,3,7,8-PECDD	0.244	JBQ	0.0360	MDL	5.14	PQL	ng/Kg	U	B
1,2,3,7,8-PECDF	0.177	JB	0.0212	MDL	5.14	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.401	JB	0.0318	MDL	5.14	PQL	ng/Kg	J	Z
2,3,4,7,8-PECDF	0.186	JB	0.0244	MDL	5.14	PQL	ng/Kg	U	B
2,3,7,8-TCDD	0.0747	JQ	0.0330	MDL	1.03	PQL	ng/Kg	J	Z
2,3,7,8-TCDF	0.153	JQ	0.0414	MDL	1.03	PQL	ng/Kg	J	Z
OCDF	8.50	JB	0.0507	MDL	10.3	PQL	ng/Kg	J	Z

Sample ID: SL-551-SA7-SB-2.0-3.0 **Collected:** 4/10/2013 11:00:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDF	2.24	JB	0.0122	MDL	5.03	PQL	ng/Kg	J	Z
1,2,3,4,7,8,9-HPCDF	0.298	JB	0.0272	MDL	5.03	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.161	JBQ	0.0319	MDL	5.03	PQL	ng/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3 Subarea 7

Data Qualifier Summary

Lab Reporting Batch ID: PH028 **Laboratory: LL**

EDD Filename: PrepPH028_v1 **eQAPP Name: CDM_SSFL_130621_Lan**

Method Category: **SVOA**

Method: **1613B** ***Matrix:*** **SO**

Sample ID: **SL-551-SA7-SB-2.0-3.0** ***Collected:*** **4/10/2013 11:00:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,7,8-HXCDF	0.203	JB	0.0313	MDL	5.03	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.472	J	0.0332	MDL	5.03	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.182	JB	0.0249	MDL	5.03	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDD	0.360	JB	0.0316	MDL	5.03	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.106	JBQ	0.0412	MDL	5.03	PQL	ng/Kg	U	B
1,2,3,7,8-PECDD	0.102	JBQ	0.0317	MDL	5.03	PQL	ng/Kg	U	B
1,2,3,7,8-PECDF	0.143	JBQ	0.0175	MDL	5.03	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.238	JB	0.0283	MDL	5.03	PQL	ng/Kg	J	Z
2,3,4,7,8-PECDF	0.0893	JBQ	0.0192	MDL	5.03	PQL	ng/Kg	U	B
2,3,7,8-TCDF	0.0596	JQ	0.0370	MDL	1.01	PQL	ng/Kg	J	Z
OCDF	5.49	JB	0.0452	MDL	10.1	PQL	ng/Kg	J	Z

Sample ID: **SL-552-SA7-SB-0.0-0.5** ***Collected:*** **4/10/2013 9:05:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDF	3.39	JB	0.0210	MDL	4.96	PQL	ng/Kg	J	Z
1,2,3,4,7,8,9-HPCDF	0.405	JB	0.0447	MDL	4.96	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HxCDD	0.372	JBQ	0.0411	MDL	4.96	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HXCDF	0.192	JB	0.0389	MDL	4.96	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.860	J	0.0435	MDL	4.96	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.262	JB	0.0320	MDL	4.96	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDD	0.787	JB	0.0412	MDL	4.96	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDD	0.228	JBQ	0.0341	MDL	4.96	PQL	ng/Kg	U	B
1,2,3,7,8-PECDF	0.153	JB	0.0193	MDL	4.96	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.344	JB	0.0347	MDL	4.96	PQL	ng/Kg	J	Z
2,3,4,7,8-PECDF	0.138	JB	0.0215	MDL	4.96	PQL	ng/Kg	U	B
OCDF	6.59	JB	0.0603	MDL	9.91	PQL	ng/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3 Subarea 7

Data Qualifier Summary

Lab Reporting Batch ID: PH028 **Laboratory: LL**

EDD Filename: PrepPH028_v1 **eQAPP Name: CDM_SSFL_130621_Lan**

Method Category: SVOA

Method: 8015M **Matrix: SO**

Sample ID: SL-547-SA7-SB-0.0-0.5 *Collected:* 4/9/2013 3:10:00 PM *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C21-C30)	4.7	J	2.0	MDL	5.1	PQL	mg/Kg	J	Z
EFH (C30-C40)	9.6	J	4.1	MDL	10	PQL	mg/Kg	J	Z

Sample ID: SL-548-SA7-SB-0.0-0.5 *Collected:* 4/10/2013 1:50:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C15-C20)	2.2	J	2.0	MDL	5.1	PQL	mg/Kg	J	Z

Sample ID: SL-551-SA7-SB-2.0-3.0 *Collected:* 4/10/2013 11:00:00 *Analysis Type:* REA *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C15-C20)	2.3	J	2.1	MDL	5.2	PQL	mg/Kg	J	Z

Sample ID: SL-552-SA7-SB-0.0-0.5 *Collected:* 4/10/2013 9:05:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C15-C20)	2.2	J	2.1	MDL	5.2	PQL	mg/Kg	J	Z
EFH (C21-C30)	4.6	J	2.1	MDL	5.2	PQL	mg/Kg	J	Z

Method Category: SVOA

Method: 8270D SIM **Matrix: SO**

Sample ID: SL-547-SA7-SB-0.0-0.5 *Collected:* 4/9/2013 3:10:00 PM *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(A)ANTHRACENE	1.1	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	1.4	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	1.0	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	0.93	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	1.0	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: SL-548-SA7-SB-0.0-0.5 *Collected:* 4/10/2013 1:50:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1-Methylnaphthalene	0.94	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3 Subarea 7

Data Qualifier Summary

Lab Reporting Batch ID: PH028 **Laboratory: LL**

EDD Filename: PrepPH028_v1 **eQAPP Name: CDM_SSFL_130621_Lan**

Method Category: **SVOA**

Method: **8270D SIM** ***Matrix:*** **SO**

Sample ID: **SL-548-SA7-SB-0.0-0.5** ***Collected:*** **4/10/2013 1:50:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2-METHYLNAPHTHALENE	1.6	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
ANTHRACENE	0.35	J	0.34	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(A)ANTHRACENE	1.2	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	1.5	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	1.3	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	1.2	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	1.0	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: **SL-549-SA7-SB-0.0-0.5** ***Collected:*** **4/10/2013 2:40:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2-METHYLNAPHTHALENE	0.73	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	1.5	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
FLUORANTHENE	1.6	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
NAPHTHALENE	1.0	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
PHENANTHRENE	0.93	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
PYRENE	1.6	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: **SL-551-SA7-SB-0.0-0.5** ***Collected:*** **4/10/2013 9:55:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1-Methylnaphthalene	1.0	J	0.69	MDL	1.7	PQL	ug/Kg	J	Z
ANTHRACENE	0.47	J	0.34	MDL	1.7	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	9.0	J	6.2	MDL	19	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	1.6	J	0.69	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: **SL-551-SA7-SB-2.0-3.0** ***Collected:*** **4/10/2013 11:00:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CHRYSENE	0.76	J	0.35	MDL	1.7	PQL	ug/Kg	J	Z
FLUORANTHENE	0.72	J	0.69	MDL	1.7	PQL	ug/Kg	J	Z
PYRENE	0.74	J	0.69	MDL	1.7	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3 Subarea 7

Data Qualifier Summary

Lab Reporting Batch ID: PH028 **Laboratory: LL**

EDD Filename: PrepPH028_v1 **eQAPP Name: CDM_SSFL_130621_Lan**

Method Category: **SVOA**

Method: **8270D SIM** ***Matrix:*** **SO**

Sample ID: **SL-552-SA7-SB-0.0-0.5** ***Collected:*** **4/10/2013 9:05:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	*Lab Result*	*Lab Qual*	*DL*	*DL Type*	*RL*	*RL Type*	*Units*	*Data Review Qual*	*Reason Code*
BENZO(A)ANTHRACENE	1.3	J	0.69	MDL	1.7	PQL	ug/Kg	J	Z
Butylbenzylphthalate	6.4	J	6.2	MDL	19	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	1.3	J	0.69	MDL	1.7	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3 Subarea 7

Data Qualifier Summary

Lab Reporting Batch ID: PH028 **Laboratory: LL**

EDD Filename: PrepPH028_v1 **eQAPP Name: CDM_SSFL_130621_Lan**

Reason Code Legend

Reason Code	*Description*
B	Calibration Blank Contamination
B	Method Blank Contamination
E	Matrix Spike Precision
L	Laboratory Control Spike Upper Estimation
Q	Matrix Spike Lower Estimation
Q	Matrix Spike Precision
Q	Matrix Spike Upper Estimation
Z	Reporting Limit Trace Value

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3 Subarea 7

Enclosure I

Level III ADR Outliers
(including Manual Review Outliers)

Quality Control Outlier Reports

PH028

Method Blank Outlier Report

Lab Reporting Batch ID: PH028 **Laboratory: LL**

EDD Filename: PrepPH028_v1 **eQAPP Name: CDM_SSFL_130621_Lan**

Method: **1613B**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
BLK1020B371418	4/15/2013 2:18:00 PM	1,2,3,4,6,7,8-HPCDD	0.0738 ng/Kg	SL-547-SA7-SB-0.0-0.5
		1,2,3,4,6,7,8-HPCDF	0.0663 ng/Kg	SL-548-SA7-SB-0.0-0.5
		1,2,3,4,7,8,9-HPCDF	0.0735 ng/Kg	SL-549-SA7-SB-0.0-0.5
		1,2,3,4,7,8-HxCDD	0.0211 ng/Kg	SL-551-SA7-SB-0.0-0.5
		1,2,3,4,7,8-HXCDF	0.0555 ng/Kg	SL-551-SA7-SB-2.0-3.0
		1,2,3,6,7,8-HXCDF	0.0300 ng/Kg	SL-552-SA7-SB-0.0-0.5
		1,2,3,7,8,9-HXCDD	0.0541 ng/Kg	
		1,2,3,7,8,9-HXCDF	0.0734 ng/Kg	
		1,2,3,7,8-PECDD	0.0495 ng/Kg	
		1,2,3,7,8-PECDF	0.0431 ng/Kg	
		2,3,4,6,7,8-HXCDF	0.0447 ng/Kg	
		2,3,4,7,8-PECDF	0.0684 ng/Kg	
		OCDD	0.157 ng/Kg	
		OCDF	0.166 ng/Kg	
		TEQ WHO 2005 - EDLx0.0	0.0118 ng/Kg	

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-547-SA7-SB-0.0-0.5(RES)	1,2,3,7,8,9-HXCDF	0.243 ng/Kg	0.243U ng/Kg
SL-548-SA7-SB-0.0-0.5(RES)	2,3,4,7,8-PECDF	0.255 ng/Kg	0.255U ng/Kg
SL-549-SA7-SB-0.0-0.5(RES)	1,2,3,4,7,8,9-HPCDF	0.0925 ng/Kg	0.0925U ng/Kg
SL-549-SA7-SB-0.0-0.5(RES)	1,2,3,4,7,8-HXCDF	0.133 ng/Kg	0.133U ng/Kg
SL-549-SA7-SB-0.0-0.5(RES)	1,2,3,7,8-PECDD	0.156 ng/Kg	0.156U ng/Kg
SL-549-SA7-SB-0.0-0.5(RES)	2,3,4,6,7,8-HXCDF	0.147 ng/Kg	0.147U ng/Kg
SL-549-SA7-SB-0.0-0.5(RES)	2,3,4,7,8-PECDF	0.263 ng/Kg	0.263U ng/Kg
SL-551-SA7-SB-0.0-0.5(RES)	1,2,3,7,8,9-HXCDF	0.123 ng/Kg	0.123U ng/Kg
SL-551-SA7-SB-0.0-0.5(RES)	1,2,3,7,8-PECDD	0.244 ng/Kg	0.244U ng/Kg
SL-551-SA7-SB-0.0-0.5(RES)	1,2,3,7,8-PECDF	0.177 ng/Kg	0.177U ng/Kg
SL-551-SA7-SB-0.0-0.5(RES)	2,3,4,7,8-PECDF	0.186 ng/Kg	0.186U ng/Kg
SL-551-SA7-SB-2.0-3.0(RES)	1,2,3,4,7,8,9-HPCDF	0.298 ng/Kg	0.298U ng/Kg
SL-551-SA7-SB-2.0-3.0(RES)	1,2,3,4,7,8-HXCDF	0.203 ng/Kg	0.203U ng/Kg
SL-551-SA7-SB-2.0-3.0(RES)	1,2,3,7,8,9-HXCDF	0.106 ng/Kg	0.106U ng/Kg
SL-551-SA7-SB-2.0-3.0(RES)	1,2,3,7,8-PECDD	0.102 ng/Kg	0.102U ng/Kg
SL-551-SA7-SB-2.0-3.0(RES)	1,2,3,7,8-PECDF	0.143 ng/Kg	0.143U ng/Kg
SL-551-SA7-SB-2.0-3.0(RES)	2,3,4,7,8-PECDF	0.0893 ng/Kg	0.0893U ng/Kg
SL-552-SA7-SB-0.0-0.5(RES)	1,2,3,4,7,8-HXCDF	0.192 ng/Kg	0.192U ng/Kg
SL-552-SA7-SB-0.0-0.5(RES)	1,2,3,7,8-PECDD	0.228 ng/Kg	0.228U ng/Kg
SL-552-SA7-SB-0.0-0.5(RES)	1,2,3,7,8-PECDF	0.153 ng/Kg	0.153U ng/Kg
SL-552-SA7-SB-0.0-0.5(RES)	2,3,4,7,8-PECDF	0.138 ng/Kg	0.138U ng/Kg

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3 Subarea 7

Method Blank Outlier Report

Lab Reporting Batch ID: PH028 **Laboratory: LL**

EDD Filename: PrepPH028_v1 **eQAPP Name: CDM_SSFL_130621_Lan**

Method: **6010C**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P10537CB221641	4/19/2013 4:41:00 PM	CALCIUM	4.23 mg/Kg	SL-547-SA7-SB-0.0-0.5
		PHOSPHORUS	14.4 mg/Kg	SL-549-SA7-SB-0.0-0.5
		TIN	1.39 mg/Kg	SL-551-SA7-SB-0.0-0.5
		ZINC	0.273 mg/Kg	SL-551-SA7-SB-2.0-3.0
				SL-552-SA7-SB-0.0-0.5
P10737AB221907	4/21/2013 7:07:00 PM	MAGNESIUM	1.82 mg/Kg	SL-548-SA7-SB-0.0-0.5
		PHOSPHORUS	10.9 mg/Kg	
		TIN	1.40 mg/Kg	
P11237AB220512	4/23/2013 5:12:00 AM	PHOSPHORUS	0.876 mg/Kg	SL-547-SA7-SB-0.0-0.5

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-547-SA7-SB-0.0-0.5(RES/TOT)	TIN	2.60 mg/Kg	2.60U mg/Kg
SL-548-SA7-SB-0.0-0.5(REA2/TOT)	TIN	2.72 mg/Kg	2.72U mg/Kg
SL-549-SA7-SB-0.0-0.5(RES/TOT)	TIN	2.69 mg/Kg	2.69U mg/Kg
SL-551-SA7-SB-0.0-0.5(RES/TOT)	TIN	2.56 mg/Kg	2.56U mg/Kg
SL-551-SA7-SB-2.0-3.0(RES/TOT)	TIN	2.59 mg/Kg	2.59U mg/Kg
SL-552-SA7-SB-0.0-0.5(RES/TOT)	TIN	2.36 mg/Kg	2.36U mg/Kg

Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: PH028 **Laboratory: LL**

EDD Filename: PrepPH028_v1 **eQAPP Name: CDM_SSFL_130621_Lan**

Method: **8270D SIM**

Matrix: **SO**

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P5LALCSQ260240 (SL-547-SA7-SB-0.0-0.5 SL-548-SA7-SB-0.0-0.5 SL-549-SA7-SB-0.0-0.5 SL-551-SA7-SB-0.0-0.5 SL-551-SA7-SB-2.0-3.0 SL-552-SA7-SB-0.0-0.5)	ACENAPHTHENE	120	-	69.00-114.00	-	ACENAPHTHENE	J (all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: PH028 **Laboratory: LL**

EDD Filename: PrepPH028_v1 **eQAPP Name: CDM_SSFL_130621_Lan**

Method: **1613B**

Matrix: **SO**

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-547-SA7-SB-0.0-0.5	1,2,3,4,6,7,8-HPCDF	JB	1.81	5.11	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JB	0.435	5.11	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JB	0.315	5.11	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JB	0.321	5.11	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	J	1.35	5.11	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	0.512	5.11	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JB	0.687	5.11	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JB	0.243	5.11	PQL	ng/Kg	J (all detects)
	1,2,3,7,8-PECDD	JBQ	0.263	5.11	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JBQ	0.365	5.11	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JB	0.445	5.11	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	0.485	5.11	PQL	ng/Kg	
	2,3,7,8-TCDD	JQ	0.105	1.02	PQL	ng/Kg	
	2,3,7,8-TCDF	J	0.183	1.02	PQL	ng/Kg	
	OCDF	JB	3.66	10.2	PQL	ng/Kg	
SL-548-SA7-SB-0.0-0.5	1,2,3,4,7,8,9-HPCDF	JB	1.05	4.97	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JBQ	1.02	4.97	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JB	0.516	4.97	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	J	3.24	4.97	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.595	4.97	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JBQ	2.10	4.97	PQL	ng/Kg	J (all detects)
	1,2,3,7,8-PECDD	JB	0.596	4.97	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JBQ	0.235	4.97	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JBQ	0.909	4.97	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.255	4.97	PQL	ng/Kg	
	2,3,7,8-TCDD	JQ	0.0614	0.994	PQL	ng/Kg	
SL-549-SA7-SB-0.0-0.5	1,2,3,4,6,7,8-HPCDF	JB	1.08	4.92	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.0925	4.92	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JB	0.231	4.92	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JBQ	0.133	4.92	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	J	0.597	4.92	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	0.168	4.92	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JB	0.492	4.92	PQL	ng/Kg	J (all detects)
	1,2,3,7,8-PECDD	JB	0.156	4.92	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JB	0.355	4.92	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JBQ	0.147	4.92	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.263	4.92	PQL	ng/Kg	
	2,3,7,8-TCDF	J	0.109	0.984	PQL	ng/Kg	
	OCDF	JB	2.07	9.84	PQL	ng/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: PH028 **Laboratory: LL**

EDD Filename: PrepPH028_v1 **eQAPP Name: CDM_SSFL_130621_Lan**

Method: **1613B**

Matrix: **SO**

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-551-SA7-SB-0.0-0.5	1,2,3,4,6,7,8-HPCDF	JB	3.99	5.14	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JB	0.574	5.14	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JB	0.417	5.14	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JB	0.300	5.14	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JQ	1.12	5.14	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	0.276	5.14	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JB	0.704	5.14	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JBQ	0.123	5.14	PQL	ng/Kg	J (all detects)
	1,2,3,7,8-PECDD	JBQ	0.244	5.14	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JB	0.177	5.14	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JB	0.401	5.14	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	0.186	5.14	PQL	ng/Kg	
	2,3,7,8-TCDD	JQ	0.0747	1.03	PQL	ng/Kg	
	2,3,7,8-TCDF	JQ	0.153	1.03	PQL	ng/Kg	
	OCDF	JB	8.50	10.3	PQL	ng/Kg	
SL-551-SA7-SB-2.0-3.0	1,2,3,4,6,7,8-HPCDF	JB	2.24	5.03	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JB	0.298	5.03	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JBQ	0.161	5.03	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JB	0.203	5.03	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	J	0.472	5.03	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	0.182	5.03	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JB	0.360	5.03	PQL	ng/Kg	J (all detects)
	1,2,3,7,8,9-HXCDF	JBQ	0.106	5.03	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JBQ	0.102	5.03	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JBQ	0.143	5.03	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JB	0.238	5.03	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.0893	5.03	PQL	ng/Kg	
	2,3,7,8-TCDF	JQ	0.0596	1.01	PQL	ng/Kg	
	OCDF	JB	5.49	10.1	PQL	ng/Kg	
SL-552-SA7-SB-0.0-0.5	1,2,3,4,6,7,8-HPCDF	JB	3.39	4.96	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JB	0.405	4.96	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JBQ	0.372	4.96	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JB	0.192	4.96	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	J	0.860	4.96	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	0.262	4.96	PQL	ng/Kg	J (all detects)
	1,2,3,7,8,9-HXCDD	JB	0.787	4.96	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JBQ	0.228	4.96	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JB	0.153	4.96	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JB	0.344	4.96	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	0.138	4.96	PQL	ng/Kg	
	OCDF	JB	6.59	9.91	PQL	ng/Kg	

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3 Subarea 7

Reporting Limit Outliers

Lab Reporting Batch ID: PH028 **Laboratory: LL**

EDD Filename: PrepPH028_v1 **eQAPP Name: CDM_SSFL_130621_Lan**

Method: 6010C

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-547-SA7-SB-0.0-0.5	ARSENIC	J	3.78	4.01	PQL	mg/Kg	J (all detects)
	BERYLLIUM	J	0.475	1.00	PQL	mg/Kg	
	BORON	J	2.59	10.0	PQL	mg/Kg	
	CADMIUM	J	0.0531	1.00	PQL	mg/Kg	
	SODIUM	J	66.5	100	PQL	mg/Kg	
	TIN	J	2.60	10.0	PQL	mg/Kg	
SL-548-SA7-SB-0.0-0.5	ANTIMONY	J	1.41	3.99	PQL	mg/Kg	J (all detects)
	ARSENIC	J	1.72	3.99	PQL	mg/Kg	
	BERYLLIUM	J	0.408	0.996	PQL	mg/Kg	
	BORON	J	4.15	9.96	PQL	mg/Kg	
	CADMIUM	J	0.448	0.996	PQL	mg/Kg	
	MOLYBDENUM	J	0.403	1.99	PQL	mg/Kg	
	SODIUM	J	56.7	99.6	PQL	mg/Kg	
	TIN	J	2.72	9.96	PQL	mg/Kg	
SL-549-SA7-SB-0.0-0.5	BERYLLIUM	J	0.528	1.02	PQL	mg/Kg	J (all detects)
	CADMIUM	J	0.175	1.02	PQL	mg/Kg	
	SODIUM	J	62.7	102	PQL	mg/Kg	
	TIN	J	2.69	10.2	PQL	mg/Kg	
SL-551-SA7-SB-0.0-0.5	ARSENIC	J	4.03	4.05	PQL	mg/Kg	J (all detects)
	BERYLLIUM	J	0.509	1.01	PQL	mg/Kg	
	CADMIUM	J	0.164	1.01	PQL	mg/Kg	
	SODIUM	J	65.0	101	PQL	mg/Kg	
	TIN	J	2.56	10.1	PQL	mg/Kg	
SL-551-SA7-SB-2.0-3.0	ARSENIC	J	4.02	4.16	PQL	mg/Kg	J (all detects)
	BERYLLIUM	J	0.467	1.04	PQL	mg/Kg	
	CADMIUM	J	0.142	1.04	PQL	mg/Kg	
	SODIUM	J	62.5	104	PQL	mg/Kg	
	TIN	J	2.59	10.4	PQL	mg/Kg	
SL-552-SA7-SB-0.0-0.5	ARSENIC	J	3.35	4.04	PQL	mg/Kg	J (all detects)
	BERYLLIUM	J	0.442	1.01	PQL	mg/Kg	
	CADMIUM	J	0.111	1.01	PQL	mg/Kg	
	SODIUM	J	86.7	101	PQL	mg/Kg	
	TIN	J	2.36	10.1	PQL	mg/Kg	

Method: 6020A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-548-SA7-SB-0.0-0.5	SILVER	J	0.0315	0.199	PQL	mg/Kg	J (all detects)

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3 Subarea 7

Reporting Limit Outliers

Lab Reporting Batch ID: PH028 **Laboratory: LL**

EDD Filename: PrepPH028_v1 **eQAPP Name: CDM_SSFL_130621_Lan**

Method: 6020A
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-549-SA7-SB-0.0-0.5	SELENIUM	J	0.196	0.408	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0306	0.204	PQL	mg/Kg	
SL-551-SA7-SB-0.0-0.5	SILVER	J	0.0411	0.203	PQL	mg/Kg	J (all detects)
SL-552-SA7-SB-0.0-0.5	SELENIUM	J	0.106	0.404	PQL	mg/Kg	J (all detects)

Method: 7471B
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-551-SA7-SB-0.0-0.5	MERCURY	J	0.0110	0.0196	PQL	mg/Kg	J (all detects)

Method: 8015M
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-547-SA7-SB-0.0-0.5	EFH (C21-C30)	J	4.7	5.1	PQL	mg/Kg	J (all detects)
	EFH (C30-C40)	J	9.6	10	PQL	mg/Kg	
SL-548-SA7-SB-0.0-0.5	EFH (C15-C20)	J	2.2	5.1	PQL	mg/Kg	J (all detects)
SL-551-SA7-SB-2.0-3.0	EFH (C15-C20)	J	2.3	5.2	PQL	mg/Kg	J (all detects)
SL-552-SA7-SB-0.0-0.5	EFH (C15-C20)	J	2.2	5.2	PQL	mg/Kg	J (all detects)
	EFH (C21-C30)	J	4.6	5.2	PQL	mg/Kg	

Method: 8270D SIM
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-547-SA7-SB-0.0-0.5	BENZO(A)ANTHRACENE	J	1.1	1.7	PQL	ug/Kg	J (all detects)
	BENZO(A)PYRENE	J	1.4	1.7	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	1.0	1.7	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	0.93	1.7	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	1.0	1.7	PQL	ug/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: PH028 **Laboratory: LL**

EDD Filename: PrepPH028_v1 **eQAPP Name: CDM_SSFL_130621_Lan**

Method: **8270D SIM**

Matrix: **SO**

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-548-SA7-SB-0.0-0.5	1-Methylnaphthalene	J	0.94	1.7	PQL	ug/Kg	J (all detects)
	2-METHYLNAPHTHALENE	J	1.6	1.7	PQL	ug/Kg	
	ANTHRACENE	J	0.35	1.7	PQL	ug/Kg	
	BENZO(A)ANTHRACENE	J	1.2	1.7	PQL	ug/Kg	
	BENZO(A)PYRENE	J	1.5	1.7	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	1.3	1.7	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	1.2	1.7	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	1.0	1.7	PQL	ug/Kg	
SL-549-SA7-SB-0.0-0.5	2-METHYLNAPHTHALENE	J	0.73	1.7	PQL	ug/Kg	J (all detects)
	BENZO(B)FLUORANTHENE	J	1.5	1.7	PQL	ug/Kg	
	FLUORANTHENE	J	1.6	1.7	PQL	ug/Kg	
	NAPHTHALENE	J	1.0	1.7	PQL	ug/Kg	
	PHENANTHRENE	J	0.93	1.7	PQL	ug/Kg	
	PYRENE	J	1.6	1.7	PQL	ug/Kg	
SL-551-SA7-SB-0.0-0.5	1-Methylnaphthalene	J	1.0	1.7	PQL	ug/Kg	J (all detects)
	ANTHRACENE	J	0.47	1.7	PQL	ug/Kg	
	BIS(2-ETHYLHEXYL)PHTHALATE	J	9.0	19	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	1.6	1.7	PQL	ug/Kg	
SL-551-SA7-SB-2.0-3.0	CHRYSENE	J	0.76	1.7	PQL	ug/Kg	J (all detects)
	FLUORANTHENE	J	0.72	1.7	PQL	ug/Kg	
	PYRENE	J	0.74	1.7	PQL	ug/Kg	
SL-552-SA7-SB-0.0-0.5	BENZO(A)ANTHRACENE	J	1.3	1.7	PQL	ug/Kg	J (all detects)
	Butylbenzylphthalate	J	6.4	19	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	1.3	1.7	PQL	ug/Kg	

LDC #: 29836B4

SDG #: PH028

Laboratory: Eurofins Lancaster Laboratories

VALIDATION COMPLETENESS WORKSHEET

ADR

Date: 6/11/13

Page: 1 of 1

Reviewer: OR

2nd Reviewer: ✓

METHOD: Metals (EPA SW 846 Method 6010C/6020A/7000)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	—	Sampling dates: 4/9/13 - 4/10/13
II.	ICP/MS Tune	—	
III.	Calibration	—	
IV.	Blanks	SW	
V.	ICP Interference Check Sample (ICS) Analysis	—	
VI.	Matrix Spike Analysis	N	MS/D (from PH027*)
VII.	Duplicate Sample Analysis	N	Dup ↓
VIII.	Laboratory Control Samples (LCS)	A	LCS
IX.	Internal Standard (ICP-MS)	N	
X.	Furnace Atomic Absorption QC	N	
XI.	ICP Serial Dilution	A	
XII.	Sample Result Verification	N	
XIII.	Overall Assessment of Data	N	
XIV.	Field Duplicates	—	
XV	Field Blanks	SW	EB = EB-041113 FB = FB-041113 (PH029)

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples:

1 31	SL-547-SA7-SB-0.0-0.5	11		21		31	
2 32	SL-552-SA7-SB-0.0-0.5	12		22		32	
3 33	SL-551-SA7-SB-0.0-0.5	13		23		33	
4 34	SL-551-SA7-SB-2.0-3.0	14		24		34	
5 35	SL-548-SA7-SB-0.0-0.5	15		25		35	
6 37	SL-549-SA7-SB-0.0-0.5	16		26		36	
7	(#1) MS (P only)	17	only associate w/ #1	27		37	
8	↓ MSD ↓	18		28		38	
9	↓ Dup ↓	19		29		39	
10		20		30		40	

Notes: * MS/D and Dup from PH027 associates all metals / all samples except for P. P from PH027 associates with 2-6.

LDC #: 29836B4

VALIDATION FINDINGS WORKSHEET
PB/ICB/CCB QUALIFIED SAMPLES

Page: 1 of 1
Reviewer: OL
2nd Reviewer: [illegible]

METHOD: Trace metals (EPA SW 864 Method 6010B/6020/7000) Soil preparation factor applied: 100x Reason: B

Sample Concentration units, unless otherwise noted: mg/Kg Associated Samples: 1-4, 6

Analyte	Maximum PB[a] (mg/Kg)	Maximum PB[a] (ug/l)	Maximum ICB/CCB[a] (ug/l)	Action Level	1	2	3	4	6				
As			5.0	2.5									
Be			2.0	1	0.48	0.44	0.51	0.47	0.53				
Cd			2.0	1	0.053	0.11	0.16	0.14	0.18				
Co			2.1	1.05									
Cu			3.4	1.7									
Mo			4.6	2.3									
Ni			2.5	1.25									

Samples with analyte concentrations within five times the associated ICB, CCB or PB concentration are listed above with the identifications from the Validation Completeness Worksheet. These sample results were qualified as not detected, "U".
Note : a - The listed analyte concentration is the highest ICB, CCB, or PB detected in the analysis of each element.

LDC #: 29836B4

VALIDATION FINDINGS WORKSHEET
Field Blanks

Page 1 of
Reviewer
2nd Reviewer:

METHOD: Trace Metals (EPA SW846 6010B/7000)

Blank units: mg/L **Associated sample units:** mg/Kg Reason: F
Sampling date: 4/11/13 Soil factor applied 100x
Field blank type: (circle one) Field Blank / Rinsate / Other: Associated Samples: All

Analyte	Blank ID	Blank ID	Sample Identification										
	EB-041113	FB-041113	Action Limit	No Qualifiers									
Ca	0.131		65.5										
Cu	0.0035	0.0036	1.8										
Mn	0.0012		0.6										
Mo	0.0143	0.0036	7.15										
Sn	0.0024		1.2										
Zn	0.0041		2.05										

CIRCLED RESULTS WERE NOT QUALIFIED. ALL RESULTS NOT CIRCLED WERE QUALIFIED BY THE FOLLOWING STATEMENT:
Samples with analyte concentrations within five times the associated field blank concentration are listed above, these sample results were qualified as not detected, "U".

Attachment I

Sample ID Cross Reference and Data Review Level

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
11-Apr-2013	SL-553-SA7-SB-0.0-0.5	7020345	N	3050B	6010C	III
11-Apr-2013	SL-553-SA7-SB-0.0-0.5	7020345	N	3050B	6020A	III
11-Apr-2013	SL-553-SA7-SB-0.0-0.5	7020345	N	3546	8015M	III
11-Apr-2013	SL-553-SA7-SB-0.0-0.5	7020345	N	3546	8082A	III
11-Apr-2013	SL-553-SA7-SB-0.0-0.5	7020345	N	3546	8270D SIM	III
11-Apr-2013	SL-553-SA7-SB-0.0-0.5	7020345	N	METHOD	1613B	III
11-Apr-2013	SL-553-SA7-SB-0.0-0.5	7020345	N	METHOD	7471B	III
11-Apr-2013	SL-554-SA7-SB-0.0-0.5	7020346	N	3050B	6010C	III
11-Apr-2013	SL-554-SA7-SB-0.0-0.5	7020346	N	3050B	6020A	III
11-Apr-2013	SL-554-SA7-SB-0.0-0.5	7020346	N	3546	8015M	III
11-Apr-2013	SL-554-SA7-SB-0.0-0.5	7020346	N	3546	8082A	III
11-Apr-2013	SL-554-SA7-SB-0.0-0.5	7020346	N	3546	8270D SIM	III
11-Apr-2013	SL-554-SA7-SB-0.0-0.5	7020346	N	METHOD	1613B	III
11-Apr-2013	SL-554-SA7-SB-0.0-0.5	7020346	N	METHOD	7471B	III
11-Apr-2013	SL-555-SA7-SB-0.0-0.5	7020347	N	3050B	6010C	III
11-Apr-2013	SL-555-SA7-SB-0.0-0.5	7020347	N	3050B	6020A	III
11-Apr-2013	SL-555-SA7-SB-0.0-0.5	7020347	N	3546	8015M	III
11-Apr-2013	SL-555-SA7-SB-0.0-0.5	7020347	N	3546	8082A	III
11-Apr-2013	SL-555-SA7-SB-0.0-0.5	7020347	N	3546	8270D SIM	III
11-Apr-2013	SL-555-SA7-SB-0.0-0.5	7020347	N	METHOD	1613B	III
11-Apr-2013	SL-555-SA7-SB-0.0-0.5	7020347	N	METHOD	7471B	III
11-Apr-2013	SL-536-SA7-SB-0.0-0.5	7020348	N	3050B	6010C	III
11-Apr-2013	SL-536-SA7-SB-0.0-0.5	7020348	N	3050B	6020A	III
11-Apr-2013	SL-536-SA7-SB-0.0-0.5	7020348	N	3546	8015M	III
11-Apr-2013	SL-536-SA7-SB-0.0-0.5	7020348	N	3546	8082A	III
11-Apr-2013	SL-536-SA7-SB-0.0-0.5	7020348	N	3546	8270D SIM	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
11-Apr-2013	SL-536-SA7-SB-0.0-0.5	7020348	N	METHOD	1613B	III
11-Apr-2013	SL-536-SA7-SB-0.0-0.5	7020348	N	METHOD	7471B	III
11-Apr-2013	FB-041113	7020350	FB	3005A	6010C	III
11-Apr-2013	FB-041113	7020350	FB	3510C	8015B	III
11-Apr-2013	FB-041113	7020350	FB	3510C	8015M	III
11-Apr-2013	FB-041113	7020350	FB	3510C	8081B	III
11-Apr-2013	FB-041113	7020350	FB	3510C	8082A	III
11-Apr-2013	FB-041113	7020350	FB	3510C	8270D	III
11-Apr-2013	FB-041113	7020350	FB	3510C	8270D SIM	III
11-Apr-2013	FB-041113	7020350	FB	5030B	8015M	III
11-Apr-2013	FB-041113	7020350	FB	5030B	8260B	III
11-Apr-2013	FB-041113	7020350	FB	5030B	8260B SIM	III
11-Apr-2013	FB-041113	7020350	FB	8330	8330A	III
11-Apr-2013	FB-041113	7020350	FB	Gen Prep	300.0	III
11-Apr-2013	FB-041113	7020350	FB	Gen Prep	350.3	III
11-Apr-2013	FB-041113	7020350	FB	Gen Prep	6850	III
11-Apr-2013	FB-041113	7020350	FB	Gen Prep	7199	III
11-Apr-2013	FB-041113	7020350	FB	Gen Prep	8015C	III
11-Apr-2013	FB-041113	7020350	FB	M3010A	6020A	III
11-Apr-2013	FB-041113	7020350	FB	METHOD	1613B	III
11-Apr-2013	FB-041113	7020350	FB	METHOD	7470A	III
11-Apr-2013	FB-041113	7020350	FB	METHOD	8151A	III
11-Apr-2013	FB-041113	7020350	FB	METHOD	8315A	III
11-Apr-2013	FB-041113	7020350	FB	METHOD	9012B	III
11-Apr-2013	FB-041113MSD	P020350M241706A	MSD	Gen Prep	6850	III
11-Apr-2013	FB-041113MSD	P020350M321934A	MSD	Gen Prep	8015C	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
11-Apr-2013	FB-041113MS	P020350R241653A	MS	Gen Prep	6850	III
11-Apr-2013	FB-041113MS	P020350R320419A	MS	Gen Prep	8015C	III
11-Apr-2013	EB-041113	7020349	EB	3005A	6010C	III
11-Apr-2013	EB-041113	7020349	EB	3510C	8015M	III
11-Apr-2013	EB-041113	7020349	EB	3510C	8082A	III
11-Apr-2013	EB-041113	7020349	EB	3510C	8270D SIM	III
11-Apr-2013	EB-041113	7020349	EB	5030B	8015M	III
11-Apr-2013	EB-041113	7020349	EB	Gen Prep	7199	III
11-Apr-2013	EB-041113	7020349	EB	M3010A	6020A	III
11-Apr-2013	EB-041113	7020349	EB	METHOD	1613B	III
11-Apr-2013	EB-041113	7020349	EB	METHOD	7470A	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Attachment II

Overall Data Qualification Summary

Data Qualifier Summary

Lab Reporting Batch ID: PH029 **Laboratory: LL**

EDD Filename: PrepPH029 **eQAPP Name: CDM_SSFL_130621_Lan**

Method Category: GENCHEM
Method: 350.3 **Matrix: AQ**

Sample ID: FB-041113 *Collected:* 4/11/2013 3:00:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AMMONIA AS N	0.050	J	0.050	MDL	0.20	PQL	mg/L	U	B

Method Category: METALS
Method: 6010C **Matrix: AQ**

Sample ID: EB-041113 *Collected:* 4/11/2013 3:15:00 *Analysis Type:* REA2/TOT *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CALCIUM	0.131	J	0.0640	MDL	0.400	PQL	mg/L	J	Z
COPPER	0.0035	J	0.0021	MDL	0.0200	PQL	mg/L	U	B, B
MANGANESE	0.0012	J	0.00083	MDL	0.0100	PQL	mg/L	J	Z
MOLYBDENUM	0.0143	J	0.0029	MDL	0.0200	PQL	mg/L	U	B
TIN	0.0024	J	0.0022	MDL	0.0400	PQL	mg/L	J	Z
ZINC	0.0041	J	0.0020	MDL	0.0400	PQL	mg/L	J	Z

Sample ID: FB-041113 *Collected:* 4/11/2013 3:00:00 *Analysis Type:* REA2/TOT *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COPPER	0.0036	J	0.0021	MDL	0.0200	PQL	mg/L	U	B, B
MOLYBDENUM	0.0036	J	0.0029	MDL	0.0200	PQL	mg/L	U	B

Method Category: METALS
Method: 6010C **Matrix: SO**

Sample ID: SL-536-SA7-SB-0.0-0.5 *Collected:* 4/11/2013 12:55:00 *Analysis Type:* REA/TOT *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	2.81	J	0.843	MDL	10.2	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3 Subarea 7

Data Qualifier Summary

Lab Reporting Batch ID: PH029 **Laboratory: LL**

EDD Filename: PrepPH029 **eQAPP Name: CDM_SSFL_130621_Lan**

Method Category: **METALS**

Method: **6010C** ***Matrix:*** **SO**

Sample ID: **SL-536-SA7-SB-0.0-0.5** ***Collected:*** **4/11/2013 12:55:00** ***Analysis Type:*** **RES/TOT** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	4.07	U	0.508	MDL	4.07	PQL	mg/Kg	UJ	Q
ARSENIC	3.54	J	0.335	MDL	4.07	PQL	mg/Kg	J	Z
BERYLLIUM	0.411	J	0.0681	MDL	1.02	PQL	mg/Kg	J	Z
CADMIUM	0.162	J	0.0335	MDL	1.02	PQL	mg/Kg	J	Z
CALCIUM	2690		4.09	MDL	20.3	PQL	mg/Kg	J	E
PHOSPHORUS	372		0.518	MDL	10.2	PQL	mg/Kg	J	Q, Q
POTASSIUM	3030		13.7	MDL	102	PQL	mg/Kg	J	Q
SODIUM	55.1	J	17.0	MDL	102	PQL	mg/Kg	J	Z
TIN	2.49	J	0.224	MDL	10.2	PQL	mg/Kg	U	B

Sample ID: **SL-553-SA7-SB-0.0-0.5** ***Collected:*** **4/11/2013 8:10:00** ***Analysis Type:*** **RES/TOT** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	4.00	U	0.501	MDL	4.00	PQL	mg/Kg	UJ	Q
BERYLLIUM	0.509	J	0.0671	MDL	1.00	PQL	mg/Kg	U	B
CADMIUM	0.229	J	0.0330	MDL	1.00	PQL	mg/Kg	U	B
CALCIUM	8930		4.02	MDL	20.0	PQL	mg/Kg	J	E
PHOSPHORUS	459		0.511	MDL	10.0	PQL	mg/Kg	J	Q, Q
POTASSIUM	3090		13.5	MDL	100	PQL	mg/Kg	J	Q
SODIUM	69.1	J	16.7	MDL	100	PQL	mg/Kg	J	Z
TIN	2.70	J	0.220	MDL	10.0	PQL	mg/Kg	U	B

Sample ID: **SL-554-SA7-SB-0.0-0.5** ***Collected:*** **4/11/2013 9:00:00** ***Analysis Type:*** **RES/TOT** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	4.07	U	0.509	MDL	4.07	PQL	mg/Kg	UJ	Q
BERYLLIUM	0.549	J	0.0681	MDL	1.02	PQL	mg/Kg	U	B
CADMIUM	0.169	J	0.0336	MDL	1.02	PQL	mg/Kg	U	B
CALCIUM	3670		4.09	MDL	20.3	PQL	mg/Kg	J	E
PHOSPHORUS	426		0.519	MDL	10.2	PQL	mg/Kg	J	Q, Q
POTASSIUM	3430		13.7	MDL	102	PQL	mg/Kg	J	Q
SODIUM	66.8	J	17.0	MDL	102	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3 Subarea 7

Data Qualifier Summary

Lab Reporting Batch ID: PH029 **Laboratory: LL**

EDD Filename: PrepPH029 **eQAPP Name: CDM_SSFL_130621_Lan**

Method Category: METALS

Method: 6010C **Matrix: SO**

Sample ID: SL-554-SA7-SB-0.0-0.5 *Collected:* 4/11/2013 9:00:00 *Analysis Type:* RES/TOT *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	2.54	J	0.224	MDL	10.2	PQL	mg/Kg	U	B

Sample ID: SL-555-SA7-SB-0.0-0.5 *Collected:* 4/11/2013 10:15:00 *Analysis Type:* REA/TOT *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	6.79	J	0.854	MDL	10.3	PQL	mg/Kg	J	Z

Sample ID: SL-555-SA7-SB-0.0-0.5 *Collected:* 4/11/2013 10:15:00 *Analysis Type:* RES/TOT *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	4.12	U	0.515	MDL	4.12	PQL	mg/Kg	UJ	Q
ARSENIC	3.64	J	0.340	MDL	4.12	PQL	mg/Kg	J	Z
BERYLLIUM	0.575	J	0.0690	MDL	1.03	PQL	mg/Kg	U	B
CADMIUM	0.397	J	0.0340	MDL	1.03	PQL	mg/Kg	U	B
CALCIUM	4940		4.14	MDL	20.6	PQL	mg/Kg	J	E
PHOSPHORUS	445		0.525	MDL	10.3	PQL	mg/Kg	J	Q, Q
POTASSIUM	3660		13.9	MDL	103	PQL	mg/Kg	J	Q
SODIUM	76.8	J	17.2	MDL	103	PQL	mg/Kg	J	Z
TIN	2.62	J	0.226	MDL	10.3	PQL	mg/Kg	U	B
Zirconium	0.902	J	0.854	MDL	5.15	PQL	mg/Kg	J	Z

Method Category: METALS

Method: 6020A **Matrix: SO**

Sample ID: SL-536-SA7-SB-0.0-0.5 *Collected:* 4/11/2013 12:55:00 *Analysis Type:* RES/TOT *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
STRONTIUM	11.0		0.0346	MDL	0.407	PQL	mg/Kg	J	Q

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3 Subarea 7

Data Qualifier Summary

Lab Reporting Batch ID: PH029 **Laboratory: LL**

EDD Filename: PrepPH029 **eQAPP Name: CDM_SSFL_130621_Lan**

Method Category: **METALS**

Method: **6020A** ***Matrix:*** **SO**

Sample ID: **SL-553-SA7-SB-0.0-0.5** ***Collected:*** **4/11/2013 8:10:00** ***Analysis Type:*** **REA/TOT** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.107	J	0.100	MDL	0.400	PQL	mg/Kg	J	Z

Sample ID: **SL-553-SA7-SB-0.0-0.5** ***Collected:*** **4/11/2013 8:10:00** ***Analysis Type:*** **RES/TOT** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SILVER	0.0459	J	0.0200	MDL	0.200	PQL	mg/Kg	J	Z
STRONTIUM	19.2		0.0340	MDL	0.400	PQL	mg/Kg	J	Q

Sample ID: **SL-554-SA7-SB-0.0-0.5** ***Collected:*** **4/11/2013 9:00:00** ***Analysis Type:*** **REA/TOT** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.117	J	0.102	MDL	0.407	PQL	mg/Kg	J	Z

Sample ID: **SL-554-SA7-SB-0.0-0.5** ***Collected:*** **4/11/2013 9:00:00** ***Analysis Type:*** **RES/TOT** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SILVER	0.0846	J	0.0203	MDL	0.203	PQL	mg/Kg	J	Z
STRONTIUM	15.8		0.0346	MDL	0.407	PQL	mg/Kg	J	Q

Sample ID: **SL-555-SA7-SB-0.0-0.5** ***Collected:*** **4/11/2013 10:15:00** ***Analysis Type:*** **REA/TOT** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.134	J	0.103	MDL	0.412	PQL	mg/Kg	J	Z

Sample ID: **SL-555-SA7-SB-0.0-0.5** ***Collected:*** **4/11/2013 10:15:00** ***Analysis Type:*** **RES/TOT** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SILVER	0.0523	J	0.0206	MDL	0.206	PQL	mg/Kg	J	Z
STRONTIUM	23.4		0.0350	MDL	0.412	PQL	mg/Kg	J	Q
THALLIUM	0.188	J	0.0309	MDL	0.206	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3 Subarea 7

Data Qualifier Summary

Lab Reporting Batch ID: PH029 **Laboratory: LL**

EDD Filename: PrepPH029 **eQAPP Name: CDM_SSFL_130621_Lan**

Method Category: METALS

Method: 7471B **Matrix: SO**

Sample ID: SL-536-SA7-SB-0.0-0.5 *Collected:* 4/11/2013 12:55:00 *Analysis Type:* RES/TOT *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0113	J	0.0099	MDL	0.0192	PQL	mg/Kg	J	Z

Sample ID: SL-555-SA7-SB-0.0-0.5 *Collected:* 4/11/2013 10:15:00 *Analysis Type:* RES/TOT *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0178	J	0.0110	MDL	0.0213	PQL	mg/Kg	J	Z

Method Category: SVOA

Method: 1613B **Matrix: AQ**

Sample ID: EB-041113 *Collected:* 4/11/2013 3:15:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	0.314	JBQ	0.183	MDL	9.74	PQL	pg/L	U	B
1,2,3,4,6,7,8-HPCDF	0.443	JBQ	0.0883	MDL	9.74	PQL	pg/L	U	B
1,2,3,4,7,8,9-HPCDF	0.321	JB	0.102	MDL	9.74	PQL	pg/L	U	B
1,2,3,4,7,8-HxCDD	0.322	JQ	0.162	MDL	9.74	PQL	pg/L	J	Z
1,2,3,4,7,8-HXCDF	0.378	JB	0.102	MDL	9.74	PQL	pg/L	U	B
1,2,3,6,7,8-HXCDD	0.314	JBQ	0.175	MDL	9.74	PQL	pg/L	U	B
1,2,3,6,7,8-HXCDF	0.354	JBQ	0.0994	MDL	9.74	PQL	pg/L	U	B
1,2,3,7,8,9-HXCDD	0.463	JB	0.172	MDL	9.74	PQL	pg/L	U	B
1,2,3,7,8,9-HXCDF	0.272	JBQ	0.0946	MDL	9.74	PQL	pg/L	U	B
1,2,3,7,8-PECDD	1.24	JBQ	0.256	MDL	9.74	PQL	pg/L	U	B
1,2,3,7,8-PECDF	0.820	JBQ	0.160	MDL	9.74	PQL	pg/L	U	B
2,3,4,6,7,8-HXCDF	0.202	JBQ	0.0978	MDL	9.74	PQL	pg/L	U	B
2,3,4,7,8-PECDF	0.492	JBQ	0.145	MDL	9.74	PQL	pg/L	U	B
OCDD	1.04	JBQ	0.406	MDL	19.5	PQL	pg/L	U	B
OCDF	0.655	JB	0.292	MDL	19.5	PQL	pg/L	U	B

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: PH029 **Laboratory: LL**

EDD Filename: PrepPH029 **eQAPP Name: CDM_SSFL_130621_Lan**

Method Category: SVOA
Method: 1613B **Matrix:** AQ

Sample ID: FB-041113 *Collected:* 4/11/2013 3:00:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	0.402	JBQ	0.163	MDL	9.76	PQL	pg/L	U	B
1,2,3,4,6,7,8-HPCDF	0.254	JBQ	0.0678	MDL	9.76	PQL	pg/L	U	B
1,2,3,4,7,8-HxCDD	0.125	J	0.122	MDL	9.76	PQL	pg/L	J	Z
1,2,3,4,7,8-HXCDF	0.324	JB	0.0890	MDL	9.76	PQL	pg/L	U	B
1,2,3,6,7,8-HXCDF	0.221	JB	0.0881	MDL	9.76	PQL	pg/L	U	B
1,2,3,7,8,9-HXCDD	0.134	JBQ	0.131	MDL	9.76	PQL	pg/L	U	B
1,2,3,7,8,9-HXCDF	0.211	JBQ	0.0982	MDL	9.76	PQL	pg/L	U	B
1,2,3,7,8-PECDF	0.398	JBQ	0.138	MDL	9.76	PQL	pg/L	U	B
2,3,4,6,7,8-HXCDF	0.149	JB	0.0887	MDL	9.76	PQL	pg/L	U	B
2,3,4,7,8-PECDF	0.316	JBQ	0.135	MDL	9.76	PQL	pg/L	U	B
OCDF	0.840	JBQ	0.275	MDL	19.5	PQL	pg/L	U	B

Method Category: SVOA
Method: 1613B **Matrix:** SO

Sample ID: SL-536-SA7-SB-0.0-0.5 *Collected:* 4/11/2013 12:55:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,7,8,9-HPCDF	0.861	JB	0.0306	MDL	4.97	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HxCDD	1.30	JB	0.0355	MDL	4.97	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HXCDF	0.465	JB	0.0290	MDL	4.97	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDD	3.42	JB	0.0376	MDL	4.97	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.489	JB	0.0271	MDL	4.97	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDD	2.74	J	0.0346	MDL	4.97	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.158	JB	0.0309	MDL	4.97	PQL	ng/Kg	U	B
1,2,3,7,8-PECDD	0.799	J	0.0431	MDL	4.97	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	0.192	JBQ	0.0200	MDL	4.97	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.695	JB	0.0274	MDL	4.97	PQL	ng/Kg	J	Z
2,3,4,7,8-PECDF	0.195	JB	0.0190	MDL	4.97	PQL	ng/Kg	J	Z
2,3,7,8-TCDD	0.0447	JB	0.0276	MDL	0.994	PQL	ng/Kg	U	B
2,3,7,8-TCDF	0.0619	J	0.0261	MDL	0.994	PQL	ng/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3 Subarea 7

Data Qualifier Summary

Lab Reporting Batch ID: PH029 **Laboratory: LL**

EDD Filename: PrepPH029 **eQAPP Name: CDM_SSFL_130621_Lan**

Method Category: **SVOA**

Method: **1613B** ***Matrix:*** **SO**

Sample ID: **SL-553-SA7-SB-0.0-0.5** ***Collected:*** **4/11/2013 8:10:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDF	1.12	JB	0.0147	MDL	5.02	PQL	ng/Kg	J	Z
1,2,3,4,7,8,9-HPCDF	0.137	JB	0.0172	MDL	5.02	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.147	JB	0.0338	MDL	5.02	PQL	ng/Kg	U	B
1,2,3,4,7,8-HXCDF	0.121	JB	0.0252	MDL	5.02	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.399	JB	0.0347	MDL	5.02	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.0953	JB	0.0231	MDL	5.02	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.368	J	0.0340	MDL	5.02	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.0657	JB	0.0243	MDL	5.02	PQL	ng/Kg	U	B
1,2,3,7,8-PECDD	0.0481	JQ	0.0295	MDL	5.02	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	0.149	JB	0.0163	MDL	5.02	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.122	JBQ	0.0239	MDL	5.02	PQL	ng/Kg	J	Z
2,3,4,7,8-PECDF	0.144	JB	0.0154	MDL	5.02	PQL	ng/Kg	U	B
2,3,7,8-TCDD	0.0659	JBQ	0.0297	MDL	1.00	PQL	ng/Kg	U	B
2,3,7,8-TCDF	0.0333	JQ	0.0332	MDL	1.00	PQL	ng/Kg	J	Z
OCDF	2.38	JB	0.0237	MDL	10.0	PQL	ng/Kg	J	Z

Sample ID: **SL-554-SA7-SB-0.0-0.5** ***Collected:*** **4/11/2013 9:00:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,7,8,9-HPCDF	0.599	JB	0.0483	MDL	5.13	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HxCDD	0.627	JB	0.0336	MDL	5.13	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HXCDF	0.505	JB	0.0313	MDL	5.13	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDD	1.60	JB	0.0337	MDL	5.13	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.356	JB	0.0296	MDL	5.13	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDD	1.41	J	0.0331	MDL	5.13	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.293	JB	0.0305	MDL	5.13	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDD	0.441	J	0.0407	MDL	5.13	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	0.294	JB	0.0380	MDL	5.13	PQL	ng/Kg	J	Z
2,3,4,6,7,8-HXCDF	0.440	JBQ	0.0275	MDL	5.13	PQL	ng/Kg	J	Z
2,3,4,7,8-PECDF	0.865	JB	0.0339	MDL	5.13	PQL	ng/Kg	J	Z
2,3,7,8-TCDD	0.0864	JB	0.0294	MDL	1.03	PQL	ng/Kg	U	B
2,3,7,8-TCDF	0.389	J	0.0823	MDL	1.03	PQL	ng/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3 Subarea 7

Data Qualifier Summary

Lab Reporting Batch ID: PH029 **Laboratory: LL**

EDD Filename: PrepPH029 **eQAPP Name: CDM_SSFL_130621_Lan**

Method Category: SVOA

Method: 1613B **Matrix: SO**

Sample ID: SL-555-SA7-SB-0.0-0.5 *Collected:* 4/11/2013 10:15:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDF	4.16	JB	0.0600	MDL	5.30	PQL	ng/Kg	J	Z
1,2,3,4,7,8,9-HPCDF	0.360	JB	0.0702	MDL	5.30	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HxCDD	0.475	JB	0.0346	MDL	5.30	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HXCDF	0.375	JB	0.0320	MDL	5.30	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDD	1.35	JB	0.0354	MDL	5.30	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.388	JB	0.0303	MDL	5.30	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDD	1.20	JQ	0.0335	MDL	5.30	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.400	JB	0.0361	MDL	5.30	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDD	0.383	JQ	0.0572	MDL	5.30	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	0.427	JBQ	0.0386	MDL	5.30	PQL	ng/Kg	J	Z
2,3,4,6,7,8-HXCDF	0.433	JB	0.0315	MDL	5.30	PQL	ng/Kg	J	Z
2,3,4,7,8-PECDF	0.849	JB	0.0364	MDL	5.30	PQL	ng/Kg	J	Z
2,3,7,8-TCDD	0.0496	JBQ	0.0345	MDL	1.06	PQL	ng/Kg	U	B
2,3,7,8-TCDF	0.395	J	0.0790	MDL	1.06	PQL	ng/Kg	J	Z
OCDF	9.21	JB	0.0582	MDL	10.6	PQL	ng/Kg	J	Z

Method Category: SVOA

Method: 8015C **Matrix: AQ**

Sample ID: FB-041113 *Collected:* 4/11/2013 3:00:00 *Analysis Type:* REA *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
DIETHYLENE GLYCOL	10	U	8.0	MDL	10	PQL	mg/L	UJ	H
ETHYLENE GLYCOL	10	U	8.0	MDL	10	PQL	mg/L	UJ	H
Propylene glycol	10	U	8.0	MDL	10	PQL	mg/L	UJ	H
Triethylene glycol	10	U	8.0	MDL	10	PQL	mg/L	UJ	H

Sample ID: FB-041113 *Collected:* 4/11/2013 3:00:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ETHANOL	1000	U	200	MDL	1000	PQL	ug/L	UJ	H
Isopropanol	1000	U	200	MDL	1000	PQL	ug/L	UJ	H

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3 Subarea 7

Data Qualifier Summary

Lab Reporting Batch ID: PH029 **Laboratory: LL**

EDD Filename: PrepPH029 **eQAPP Name: CDM_SSFL_130621_Lan**

Method Category: SVOA
Method: 8015C **Matrix: AQ**

Sample ID: FB-041113 *Collected:* 4/11/2013 3:00:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
METHANOL	1000	U	200	MDL	1000	PQL	ug/L	UJ	H

Method Category: SVOA
Method: 8015M **Matrix: AQ**

Sample ID: EB-041113 *Collected:* 4/11/2013 3:15:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C8-C11)	0.57	U	0.095	MDL	0.57	PQL	mg/L	UJ	L

Sample ID: FB-041113 *Collected:* 4/11/2013 3:00:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C8-C11)	0.57	U	0.095	MDL	0.57	PQL	mg/L	UJ	L

Method Category: SVOA
Method: 8015M **Matrix: SO**

Sample ID: SL-536-SA7-SB-0.0-0.5 *Collected:* 4/11/2013 12:55:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C15-C20)	2.2	J	2.0	MDL	5.1	PQL	mg/Kg	J	Z

Method Category: SVOA
Method: 8270D **Matrix: AQ**

Sample ID: FB-041113 *Collected:* 4/11/2013 3:00:00 *Analysis Type:* RES-ACID *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZOIC ACID	15	U	6	MDL	15	PQL	ug/L	UJ	E
NAPHTHALENE	0.2	J	0.1	MDL	0.5	PQL	ug/L	J	Z

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3 Subarea 7

Data Qualifier Summary

Lab Reporting Batch ID: PH029 **Laboratory: LL**

EDD Filename: PrepPH029 **eQAPP Name: CDM_SSFL_130621_Lan**

Method Category: SVOA
Method: 8270D SIM **Matrix:** AQ

Sample ID: EB-041113 *Collected:* 4/11/2013 3:15:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1-METHYLNAPHTHALENE	0.020	J	0.011	MDL	0.055	PQL	ug/L	J	Z
2-METHYLNAPHTHALENE	0.027	J	0.011	MDL	0.055	PQL	ug/L	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	0.11	J	0.055	MDL	1.1	PQL	ug/L	U	B
Diethylphthalate	0.24	J	0.055	MDL	1.1	PQL	ug/L	J	Z
Di-n-butylphthalate	0.16	J	0.055	MDL	1.1	PQL	ug/L	J	Z
Di-n-octylphthalate	1.1	U	0.055	MDL	1.1	PQL	ug/L	UJ	L

Sample ID: FB-041113 *Collected:* 4/11/2013 3:00:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1-METHYLNAPHTHALENE	0.019	J	0.010	MDL	0.051	PQL	ug/L	J	Z
2-METHYLNAPHTHALENE	0.024	J	0.010	MDL	0.051	PQL	ug/L	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	0.082	J	0.051	MDL	1.0	PQL	ug/L	U	B
Diethylphthalate	0.18	J	0.051	MDL	1.0	PQL	ug/L	J	Z
Di-n-butylphthalate	0.17	J	0.051	MDL	1.0	PQL	ug/L	J	Z
Di-n-octylphthalate	1.0	U	0.051	MDL	1.0	PQL	ug/L	UJ	L

Method Category: SVOA
Method: 8270D SIM **Matrix:** SO

Sample ID: SL-536-SA7-SB-0.0-0.5 *Collected:* 4/11/2013 12:55:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTHRACENE	0.41	J	0.34	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(E)PYRENE	4.3	J	3.4	MDL	17	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	10	J	6.1	MDL	18	PQL	ug/Kg	J	Z
Di-n-butylphthalate	7.6	J	6.1	MDL	18	PQL	ug/Kg	J	Z
FLUORENE	0.72	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
NAPHTHALENE	1.2	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3 Subarea 7

Data Qualifier Summary

Lab Reporting Batch ID: PH029 **Laboratory: LL**

EDD Filename: PrepPH029 **eQAPP Name: CDM_SSFL_130621_Lan**

Method Category: SVOA
Method: 8270D SIM **Matrix:** SO

Sample ID: SL-553-SA7-SB-0.0-0.5 *Collected:* 4/11/2013 8:10:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(B)FLUORANTHENE	1.2	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	6.8	J	6.1	MDL	18	PQL	ug/Kg	J	Z
CHRYSENE	1.1	J	0.34	MDL	1.7	PQL	ug/Kg	J	Z
FLUORANTHENE	1.2	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
PHENANTHRENE	0.68	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
PYRENE	1.2	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: SL-554-SA7-SB-0.0-0.5 *Collected:* 4/11/2013 9:00:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 10

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(E)PYRENE	80	J	35	MDL	180	PQL	ug/Kg	J	Z
PYRENE	8.3	J	6.9	MDL	17	PQL	ug/Kg	J	Z

Method Category: SVOA
Method: 8330A **Matrix:** AQ

Sample ID: FB-041113 *Collected:* 4/11/2013 3:00:00 *Analysis Type:* RES-BASE/NEUTRAL *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,3,5-TRINITROBENZENE	0.60	U	0.20	MDL	0.60	PQL	ug/L	UJ	L
1,3-DINITROBENZENE	0.60	U	0.20	MDL	0.60	PQL	ug/L	UJ	L
2,4,6-TRINITROTOLUENE	0.60	U	0.20	MDL	0.60	PQL	ug/L	UJ	L
2,4-DINITROTOLUENE	0.60	U	0.20	MDL	0.60	PQL	ug/L	UJ	L
2-AMINO-4,6-DINITROTOLUENE	0.60	U	0.20	MDL	0.60	PQL	ug/L	UJ	L
2-NITROTOLUENE	0.60	U	0.20	MDL	0.60	PQL	ug/L	UJ	L
3-NITROTOLUENE	1.2	U	0.40	MDL	1.2	PQL	ug/L	UJ	L
4-NITROTOLUENE	1.2	U	0.60	MDL	1.2	PQL	ug/L	UJ	L
HMX	2.0	U	0.65	MDL	2.0	PQL	ug/L	UJ	L
Nitroglycerin	15	U	5.2	MDL	15	PQL	ug/L	UJ	L
PETN	18	U	6.0	MDL	18	PQL	ug/L	UJ	L
RDX	0.60	U	0.20	MDL	0.60	PQL	ug/L	UJ	L

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3 Subarea 7

Data Qualifier Summary

Lab Reporting Batch ID: PH029 **Laboratory: LL**

EDD Filename: PrepPH029 **eQAPP Name: CDM_SSFL_130621_Lan**

Method Category: **VOA**

Method: **8260B** ***Matrix:*** **AQ**

Sample ID: **FB-041113** ***Collected:*** **4/11/2013 3:00:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	*Lab Result*	*Lab Qual*	*DL*	*DL Type*	*RL*	*RL Type*	*Units*	*Data Review Qual*	*Reason Code*
METHYLENE CHLORIDE	2	J	2	MDL	5	PQL	ug/L	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: PH029 **Laboratory: LL**

EDD Filename: PrepPH029 **eQAPP Name: CDM_SSFL_130621_Lan**

Reason Code Legend

Reason Code	*Description*
B	Calibration Blank Contamination
B	Method Blank Contamination
E	Laboratory Control Precision
E	Matrix Spike Precision
H	Sampling to Analysis Estimation
L	Laboratory Control Precision
L	Laboratory Control Spike Lower Estimation
L	Laboratory Control Spike Upper Estimation
Q	Matrix Spike Lower Estimation
Q	Matrix Spike Precision
Q	Matrix Spike Upper Estimation
S	Surrogate/Tracer Recovery Upper Estimation
Z	Reporting Limit Trace Value

* denotes a non-reportable result

Enclosure I

Level III ADR Outliers
(including Manual Review Outliers)

Quality Control Outlier Reports

PH029

QC Outlier Report: HoldingTimes

Lab Reporting Batch ID: PH029 **Laboratory: LL**
EDD Filename: PrepPH029 **eQAPP Name: CDM_SSFL_130621_Lan**

Method: 8015C **Preparation Method: Gen Prep**
Matrix: AQ

Sample ID	Type	Actual	Criteria	Units	Flag
FB-041113 (RES)	Sampling To Analysis	8.00	7.00	DAYS	J (all detects)
FB-041113 (RES)		8.00	7.00	DAYS	UJ (all non-detects)
FB-041113 (REA)		12.00	7.00	DAYS	
FB-041113 (REA)		12.00	7.00	DAYS	
FB-041113MS (RES)		8.00	7.00	DAYS	
FB-041113MS (RES)		8.00	7.00	DAYS	
FB-041113MSD (RES)		8.00	7.00	DAYS	
FB-041113MSD (RES)		8.00	7.00	DAYS	

Method Blank Outlier Report

Lab Reporting Batch ID: PH029 **Laboratory: LL**

EDD Filename: PrepPH029 **eQAPP Name: CDM_SSFL_130621_Lan**

Method: **1613B**
Matrix: **AQ**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
BLK1060B372058	4/18/2013 8:58:00 PM	1,2,3,4,6,7,8-HPCDD	0.306 pg/L	EB-041113
		1,2,3,4,6,7,8-HPCDF	0.193 pg/L	FB-041113
		1,2,3,4,7,8,9-HPCDF	0.370 pg/L	
		1,2,3,4,7,8-HXCDF	0.338 pg/L	
		1,2,3,6,7,8-HXCDD	0.538 pg/L	
		1,2,3,6,7,8-HXCDF	0.333 pg/L	
		1,2,3,7,8,9-HXCDD	0.284 pg/L	
		1,2,3,7,8,9-HXCDF	0.394 pg/L	
		1,2,3,7,8-PECDD	0.404 pg/L	
		1,2,3,7,8-PECDF	0.484 pg/L	
		2,3,4,6,7,8-HXCDF	0.281 pg/L	
		2,3,4,7,8-PECDF	0.290 pg/L	
		2,3,7,8-TCDF	0.231 pg/L	
		OCDD	0.635 pg/L	
		OCDF	0.712 pg/L	

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
EB-041113(RES)	1,2,3,4,6,7,8-HPCDD	0.314 pg/L	0.314U pg/L
EB-041113(RES)	1,2,3,4,6,7,8-HPCDF	0.443 pg/L	0.443U pg/L
EB-041113(RES)	1,2,3,4,7,8,9-HPCDF	0.321 pg/L	0.321U pg/L
EB-041113(RES)	1,2,3,4,7,8-HXCDF	0.378 pg/L	0.378U pg/L
EB-041113(RES)	1,2,3,6,7,8-HXCDD	0.314 pg/L	0.314U pg/L
EB-041113(RES)	1,2,3,6,7,8-HXCDF	0.354 pg/L	0.354U pg/L
EB-041113(RES)	1,2,3,7,8,9-HXCDD	0.463 pg/L	0.463U pg/L
EB-041113(RES)	1,2,3,7,8,9-HXCDF	0.272 pg/L	0.272U pg/L
EB-041113(RES)	1,2,3,7,8-PECDD	1.24 pg/L	1.24U pg/L
EB-041113(RES)	1,2,3,7,8-PECDF	0.820 pg/L	0.820U pg/L
EB-041113(RES)	2,3,4,6,7,8-HXCDF	0.202 pg/L	0.202U pg/L
EB-041113(RES)	2,3,4,7,8-PECDF	0.492 pg/L	0.492U pg/L
EB-041113(RES)	OCDD	1.04 pg/L	1.04U pg/L
EB-041113(RES)	OCDF	0.655 pg/L	0.655U pg/L
FB-041113(RES)	1,2,3,4,6,7,8-HPCDD	0.402 pg/L	0.402U pg/L
FB-041113(RES)	1,2,3,4,6,7,8-HPCDF	0.254 pg/L	0.254U pg/L
FB-041113(RES)	1,2,3,4,7,8-HXCDF	0.324 pg/L	0.324U pg/L
FB-041113(RES)	1,2,3,6,7,8-HXCDF	0.221 pg/L	0.221U pg/L
FB-041113(RES)	1,2,3,7,8,9-HXCDD	0.134 pg/L	0.134U pg/L
FB-041113(RES)	1,2,3,7,8,9-HXCDF	0.211 pg/L	0.211U pg/L
FB-041113(RES)	1,2,3,7,8-PECDF	0.398 pg/L	0.398U pg/L
FB-041113(RES)	2,3,4,6,7,8-HXCDF	0.149 pg/L	0.149U pg/L
FB-041113(RES)	2,3,4,7,8-PECDF	0.316 pg/L	0.316U pg/L
FB-041113(RES)	OCDF	0.840 pg/L	0.840U pg/L

Method Blank Outlier Report

Lab Reporting Batch ID: PH029 **Laboratory: LL**

EDD Filename: PrepPH029 **eQAPP Name: CDM_SSFL_130621_Lan**

Method: **1613B**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
BLK1060B371944	4/17/2013 7:44:00 PM	1,2,3,4,6,7,8-HPCDD	0.0840 ng/Kg	SL-536-SA7-SB-0.0-0.5
		1,2,3,4,6,7,8-HPCDF	0.0530 ng/Kg	SL-553-SA7-SB-0.0-0.5
		1,2,3,4,7,8,9-HPCDF	0.0413 ng/Kg	SL-554-SA7-SB-0.0-0.5
		1,2,3,4,7,8-HxCDD	0.0315 ng/Kg	SL-555-SA7-SB-0.0-0.5
		1,2,3,4,7,8-HXCDF	0.0446 ng/Kg	
		1,2,3,6,7,8-HXCDD	0.0201 ng/Kg	
		1,2,3,6,7,8-HXCDF	0.0356 ng/Kg	
		1,2,3,7,8,9-HXCDF	0.0566 ng/Kg	
		1,2,3,7,8-PECDF	0.0560 ng/Kg	
		2,3,4,6,7,8-HXCDF	0.0222 ng/Kg	
		2,3,4,7,8-PECDF	0.0310 ng/Kg	
		2,3,7,8-TCDD	0.0457 ng/Kg	
		OCDD	0.121 ng/Kg	
		OCDF	0.0815 ng/Kg	

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-536-SA7-SB-0.0-0.5(RES)	1,2,3,7,8,9-HXCDF	0.158 ng/Kg	0.158U ng/Kg
SL-536-SA7-SB-0.0-0.5(RES)	1,2,3,7,8-PECDF	0.192 ng/Kg	0.192U ng/Kg
SL-536-SA7-SB-0.0-0.5(RES)	2,3,7,8-TCDD	0.0447 ng/Kg	0.0447U ng/Kg
SL-553-SA7-SB-0.0-0.5(RES)	1,2,3,4,7,8,9-HPCDF	0.137 ng/Kg	0.137U ng/Kg
SL-553-SA7-SB-0.0-0.5(RES)	1,2,3,4,7,8-HxCDD	0.147 ng/Kg	0.147U ng/Kg
SL-553-SA7-SB-0.0-0.5(RES)	1,2,3,4,7,8-HXCDF	0.121 ng/Kg	0.121U ng/Kg
SL-553-SA7-SB-0.0-0.5(RES)	1,2,3,6,7,8-HXCDF	0.0953 ng/Kg	0.0953U ng/Kg
SL-553-SA7-SB-0.0-0.5(RES)	1,2,3,7,8,9-HXCDF	0.0657 ng/Kg	0.0657U ng/Kg
SL-553-SA7-SB-0.0-0.5(RES)	1,2,3,7,8-PECDF	0.149 ng/Kg	0.149U ng/Kg
SL-553-SA7-SB-0.0-0.5(RES)	2,3,4,7,8-PECDF	0.144 ng/Kg	0.144U ng/Kg
SL-553-SA7-SB-0.0-0.5(RES)	2,3,7,8-TCDD	0.0659 ng/Kg	0.0659U ng/Kg
SL-554-SA7-SB-0.0-0.5(RES)	2,3,7,8-TCDD	0.0864 ng/Kg	0.0864U ng/Kg
SL-555-SA7-SB-0.0-0.5(RES)	2,3,7,8-TCDD	0.0496 ng/Kg	0.0496U ng/Kg

Method: **350.3**
Matrix: **AQ**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P008201B292003A	4/15/2013 8:03:00 PM	AMMONIA AS N	0.070 mg/L	FB-041113

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
FB-041113(RES)	AMMONIA AS N	0.050 mg/L	0.050U mg/L

Method Blank Outlier Report

Lab Reporting Batch ID: PH029 **Laboratory: LL**

EDD Filename: PrepPH029 **eQAPP Name: CDM_SSFL_130621_Lan**

Method: 6010C
Matrix: AQ

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P10835AB221742	4/23/2013 5:42:00 PM	COPPER	0.0024 mg/L	EB-041113 FB-041113

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
EB-041113(REA2/TOT)	COPPER	0.0035 mg/L	0.0035U mg/L
FB-041113(REA2/TOT)	COPPER	0.0036 mg/L	0.0036U mg/L

Method: 6010C
Matrix: SO

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P10537CB221641	4/19/2013 4:41:00 PM	CALCIUM PHOSPHORUS TIN ZINC	4.23 mg/Kg 14.4 mg/Kg 1.39 mg/Kg 0.273 mg/Kg	SL-536-SA7-SB-0.0-0.5 SL-553-SA7-SB-0.0-0.5 SL-554-SA7-SB-0.0-0.5 SL-555-SA7-SB-0.0-0.5

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-536-SA7-SB-0.0-0.5(RES/TOT)	TIN	2.49 mg/Kg	2.49U mg/Kg
SL-553-SA7-SB-0.0-0.5(RES/TOT)	TIN	2.70 mg/Kg	2.70U mg/Kg
SL-554-SA7-SB-0.0-0.5(RES/TOT)	TIN	2.54 mg/Kg	2.54U mg/Kg
SL-555-SA7-SB-0.0-0.5(RES/TOT)	TIN	2.62 mg/Kg	2.62U mg/Kg

Method: 8270D SIM
Matrix: AQ

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
PLKWH10B262132	4/28/2013 9:32:00 PM	BIS(2-ETHYLHEXYL)PHTHALATE	0.059 ug/L	EB-041113 FB-041113

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
EB-041113(RES)	BIS(2-ETHYLHEXYL)PHTHALATE	0.11 ug/L	1.1U ug/L
FB-041113(RES)	BIS(2-ETHYLHEXYL)PHTHALATE	0.082 ug/L	1.0U ug/L

Surrogate Outlier Report

Lab Reporting Batch ID: PH029 **Laboratory: LL**

EDD Filename: PH029_v1. **eQAPP Name: CDM_SSFL_130621_Lan**

Method: **8082A**
Matrix: **SO**

Sample ID (Analysis Type)	*Surrogate*	*Sample % Recovery*	*% Recovery Limits*	*Affected Compounds*	*Flag*
SL-553-SA7-SB-0.0 -0.5	TETRACHLORO-M-XYLENE	122	45.00-120.00	All Target Analytes	J (all detects)

Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: PH029 **Laboratory: LL**

EDD Filename: PH029_v1. **eQAPP Name: CDM_SSFL_130621_Lan**

Method: 8270D SIM
Matrix: AQ

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P7WHLCSQ262159 P7WHLCSY262226 (EB-041113 FB-041113)	Di-n-octylphthalate	53	56	57.00-145.00	-	Di-n-octylphthalate	J(all detects) UJ(all non-detects)

Method: 8270D
Matrix: AQ

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P7WILCSQ261540 P7WILCSY261607 (FB-041113)	4-NITROPHENOL	78	82	13.00-71.00	-	4-NITROPHENOL	J(all detects)
P7WILCSY261607 (FB-041113)	BENZOIC ACID	-	-	10.00-69.00	37 (30.00)	BENZOIC ACID	J(all detects) UJ(all non-detects)

Method: 8015M
Matrix: AQ

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P31037AQ320108A P31037AY320129A (EB-041113 FB-041113)	EFH (C8-C11)	69	68	70.00-130.00	-	EFH (C8-C11)	J(all detects) UJ(all non-detects)

Method: 8330A
Matrix: AQ

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P31061AQ240828A P31061AY240910A (FB-041113)	1,3,5-TRINITROBENZENE	73	-	80.00-111.00	-	1,3,5-TRINITROBENZENE	J(all detects) UJ(all non-detects)
	1,3-DINITROBENZENE	75	-	76.00-116.00	-	1,3-DINITROBENZENE	
	2,4,6-TRINITROTOLUENE	71	-	76.00-109.00	-	2,4,6-TRINITROTOLUENE	
	2,4-DINITROTOLUENE	67	-	76.00-104.00	-	2,4-DINITROTOLUENE	
	2-AMINO-4,6-DINITROTOLUENE	64	72	74.00-104.00	-	2-AMINO-4,6-DINITROTOLUEN	
	2-NITROTOLUENE	71	-	78.00-102.00	-	2-NITROTOLUENE	
	3-NITROTOLUENE	72	-	81.00-107.00	-	3-NITROTOLUENE	
	4-NITROTOLUENE	75	-	76.00-105.00	-	4-NITROTOLUENE	
	HMX	66	-	73.00-104.00	-	HMX	
	Nitroglycerin	68	78	83.00-104.00	-	Nitroglycerin	
	PETN	74	86	88.00-128.00	-	PETN	
	RDX	72	-	74.00-107.00	-	RDX	

Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: PH029 **Laboratory: LL**

EDD Filename: PH029_v1. **eQAPP Name: CDM_SSFL_130621_Lan**

Method: **8270D SIM**

Matrix: **SO**

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P5LALCSQ260240 (SL-536-SA7-SB-0.0-0.5 SL-553-SA7-SB-0.0-0.5 SL-554-SA7-SB-0.0-0.5 SL-555-SA7-SB-0.0-0.5)	ACENAPHTHENE	120	-	69.00-114.00	-	ACENAPHTHENE	J (all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: PH029 **Laboratory: LL**

EDD Filename: PH029_v1. **eQAPP Name: CDM_SSFL_130621_Lan**

Method: 1613B
Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB-041113	1,2,3,4,6,7,8-HPCDD	JBQ	0.314	9.74	PQL	pg/L	J (all detects)
	1,2,3,4,6,7,8-HPCDF	JBQ	0.443	9.74	PQL	pg/L	
	1,2,3,4,7,8,9-HPCDF	JB	0.321	9.74	PQL	pg/L	
	1,2,3,4,7,8-HxCDD	JQ	0.322	9.74	PQL	pg/L	
	1,2,3,4,7,8-HXCDF	JB	0.378	9.74	PQL	pg/L	
	1,2,3,6,7,8-HXCDD	JBQ	0.314	9.74	PQL	pg/L	
	1,2,3,6,7,8-HXCDF	JBQ	0.354	9.74	PQL	pg/L	
	1,2,3,7,8,9-HXCDD	JB	0.463	9.74	PQL	pg/L	
	1,2,3,7,8,9-HXCDF	JBQ	0.272	9.74	PQL	pg/L	
	1,2,3,7,8-PECDD	JBQ	1.24	9.74	PQL	pg/L	
	1,2,3,7,8-PECDF	JBQ	0.820	9.74	PQL	pg/L	
	2,3,4,6,7,8-HXCDF	JBQ	0.202	9.74	PQL	pg/L	
	2,3,4,7,8-PECDF	JBQ	0.492	9.74	PQL	pg/L	
	OCDD	JBQ	1.04	19.5	PQL	pg/L	
	OCDF	JB	0.655	19.5	PQL	pg/L	
FB-041113	1,2,3,4,6,7,8-HPCDD	JBQ	0.402	9.76	PQL	pg/L	J (all detects)
	1,2,3,4,6,7,8-HPCDF	JBQ	0.254	9.76	PQL	pg/L	
	1,2,3,4,7,8-HxCDD	J	0.125	9.76	PQL	pg/L	
	1,2,3,4,7,8-HXCDF	JB	0.324	9.76	PQL	pg/L	
	1,2,3,6,7,8-HXCDF	JB	0.221	9.76	PQL	pg/L	
	1,2,3,7,8,9-HXCDD	JBQ	0.134	9.76	PQL	pg/L	
	1,2,3,7,8,9-HXCDF	JBQ	0.211	9.76	PQL	pg/L	
	1,2,3,7,8-PECDF	JBQ	0.398	9.76	PQL	pg/L	
	2,3,4,6,7,8-HXCDF	JB	0.149	9.76	PQL	pg/L	
	2,3,4,7,8-PECDF	JBQ	0.316	9.76	PQL	pg/L	
	OCDF	JBQ	0.840	19.5	PQL	pg/L	

Method: 350.3
Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
FB-041113	AMMONIA AS N	J	0.050	0.20	PQL	mg/L	J (all detects)

Method: 6010C
Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB-041113	CALCIUM	J	0.131	0.400	PQL	mg/L	J (all detects)
	COPPER	J	0.0035	0.0200	PQL	mg/L	
	MANGANESE	J	0.0012	0.0100	PQL	mg/L	
	MOLYBDENUM	J	0.0143	0.0200	PQL	mg/L	
	TIN	J	0.0024	0.0400	PQL	mg/L	
	ZINC	J	0.0041	0.0400	PQL	mg/L	
FB-041113	COPPER	J	0.0036	0.0200	PQL	mg/L	J (all detects)
	MOLYBDENUM	J	0.0036	0.0200	PQL	mg/L	

Reporting Limit Outliers

Lab Reporting Batch ID: PH029 **Laboratory: LL**

EDD Filename: PH029_v1. **eQAPP Name: CDM_SSFL_130621_Lan**

Method: 8260B
Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
FB-041113	METHYLENE CHLORIDE	J	2	5	PQL	ug/L	J (all detects)

Method: 8270D
Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
FB-041113	NAPHTHALENE	J	0.2	0.5	PQL	ug/L	J (all detects)

Method: 8270D SIM
Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
EB-041113	1-METHYLNAPHTHALENE	J	0.020	0.055	PQL	ug/L	J (all detects)
	2-METHYLNAPHTHALENE	J	0.027	0.055	PQL	ug/L	
	BIS(2-ETHYLHEXYL)PHTHALATE	J	0.11	1.1	PQL	ug/L	
	Diethylphthalate	J	0.24	1.1	PQL	ug/L	
	Di-n-butylphthalate	J	0.16	1.1	PQL	ug/L	
FB-041113	1-METHYLNAPHTHALENE	J	0.019	0.051	PQL	ug/L	J (all detects)
	2-METHYLNAPHTHALENE	J	0.024	0.051	PQL	ug/L	
	BIS(2-ETHYLHEXYL)PHTHALATE	J	0.082	1.0	PQL	ug/L	
	Diethylphthalate	J	0.18	1.0	PQL	ug/L	
	Di-n-butylphthalate	J	0.17	1.0	PQL	ug/L	

Method: 1613B
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-536-SA7-SB-0.0-0.5	1,2,3,4,7,8,9-HPCDF	JB	0.861	4.97	PQL	ng/Kg	J (all detects)
	1,2,3,4,7,8-HxCDD	JB	1.30	4.97	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JB	0.465	4.97	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JB	3.42	4.97	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	0.489	4.97	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	J	2.74	4.97	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JB	0.158	4.97	PQL	ng/Kg	
	1,2,3,7,8-PECDD	J	0.799	4.97	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JBQ	0.192	4.97	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JB	0.695	4.97	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	0.195	4.97	PQL	ng/Kg	
	2,3,7,8-TCDD	JB	0.0447	0.994	PQL	ng/Kg	
	2,3,7,8-TCDF	J	0.0619	0.994	PQL	ng/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: PH029 **Laboratory: LL**

EDD Filename: PH029_v1. **eQAPP Name: CDM_SSFL_130621_Lan**

Method: **1613B**

Matrix: **SO**

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-553-SA7-SB-0.0-0.5	1,2,3,4,6,7,8-HPCDF	JB	1.12	5.02	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JB	0.137	5.02	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JB	0.147	5.02	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JB	0.121	5.02	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JB	0.399	5.02	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	0.0953	5.02	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	J	0.368	5.02	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JB	0.0657	5.02	PQL	ng/Kg	J (all detects)
	1,2,3,7,8-PECDD	JQ	0.0481	5.02	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JB	0.149	5.02	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JBQ	0.122	5.02	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	0.144	5.02	PQL	ng/Kg	
	2,3,7,8-TCDD	JBQ	0.0659	1.00	PQL	ng/Kg	
	2,3,7,8-TCDF	JQ	0.0333	1.00	PQL	ng/Kg	
	OCDF	JB	2.38	10.0	PQL	ng/Kg	
SL-554-SA7-SB-0.0-0.5	1,2,3,4,7,8,9-HPCDF	JB	0.599	5.13	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JB	0.627	5.13	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JB	0.505	5.13	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JB	1.60	5.13	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	0.356	5.13	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	J	1.41	5.13	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JB	0.293	5.13	PQL	ng/Kg	J (all detects)
	1,2,3,7,8-PECDD	J	0.441	5.13	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JB	0.294	5.13	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JBQ	0.440	5.13	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	0.865	5.13	PQL	ng/Kg	
	2,3,7,8-TCDD	JB	0.0864	1.03	PQL	ng/Kg	
	2,3,7,8-TCDF	J	0.389	1.03	PQL	ng/Kg	
SL-555-SA7-SB-0.0-0.5	1,2,3,4,6,7,8-HPCDF	JB	4.16	5.30	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JB	0.360	5.30	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JB	0.475	5.30	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JB	0.375	5.30	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JB	1.35	5.30	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	0.388	5.30	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JQ	1.20	5.30	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JB	0.400	5.30	PQL	ng/Kg	J (all detects)
	1,2,3,7,8-PECDD	JQ	0.383	5.30	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JBQ	0.427	5.30	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JB	0.433	5.30	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	0.849	5.30	PQL	ng/Kg	
	2,3,7,8-TCDD	JBQ	0.0496	1.06	PQL	ng/Kg	
	2,3,7,8-TCDF	J	0.395	1.06	PQL	ng/Kg	
	OCDF	JB	9.21	10.6	PQL	ng/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: PH029 **Laboratory: LL**

EDD Filename: PH029_v1. **eQAPP Name: CDM_SSFL_130621_Lan**

Method: 6010C
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-536-SA7-SB-0.0-0.5	ARSENIC	J	3.54	4.07	PQL	mg/Kg	J (all detects)
	BERYLLIUM	J	0.411	1.02	PQL	mg/Kg	
	BORON	J	2.81	10.2	PQL	mg/Kg	
	CADMIUM	J	0.162	1.02	PQL	mg/Kg	
	SODIUM	J	55.1	102	PQL	mg/Kg	
	TIN	J	2.49	10.2	PQL	mg/Kg	
SL-553-SA7-SB-0.0-0.5	BERYLLIUM	J	0.509	1.00	PQL	mg/Kg	J (all detects)
	CADMIUM	J	0.229	1.00	PQL	mg/Kg	
	SODIUM	J	69.1	100	PQL	mg/Kg	
	TIN	J	2.70	10.0	PQL	mg/Kg	
SL-554-SA7-SB-0.0-0.5	BERYLLIUM	J	0.549	1.02	PQL	mg/Kg	J (all detects)
	CADMIUM	J	0.169	1.02	PQL	mg/Kg	
	SODIUM	J	66.8	102	PQL	mg/Kg	
	TIN	J	2.54	10.2	PQL	mg/Kg	
SL-555-SA7-SB-0.0-0.5	ARSENIC	J	3.64	4.12	PQL	mg/Kg	J (all detects)
	BERYLLIUM	J	0.575	1.03	PQL	mg/Kg	
	BORON	J	6.79	10.3	PQL	mg/Kg	
	CADMIUM	J	0.397	1.03	PQL	mg/Kg	
	SODIUM	J	76.8	103	PQL	mg/Kg	
	TIN	J	2.62	10.3	PQL	mg/Kg	
	Zirconium	J	0.902	5.15	PQL	mg/Kg	

Method: 6020A
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-553-SA7-SB-0.0-0.5	SELENIUM	J	0.107	0.400	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0459	0.200	PQL	mg/Kg	
SL-554-SA7-SB-0.0-0.5	SELENIUM	J	0.117	0.407	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0846	0.203	PQL	mg/Kg	
SL-555-SA7-SB-0.0-0.5	SELENIUM	J	0.134	0.412	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0523	0.206	PQL	mg/Kg	
	THALLIUM	J	0.188	0.206	PQL	mg/Kg	

Method: 7471B
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-536-SA7-SB-0.0-0.5	MERCURY	J	0.0113	0.0192	PQL	mg/Kg	J (all detects)
SL-555-SA7-SB-0.0-0.5	MERCURY	J	0.0178	0.0213	PQL	mg/Kg	J (all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: PH029 **Laboratory: LL**

EDD Filename: PH029_v1. **eQAPP Name: CDM_SSFL_130621_Lan**

Method: **8015M**

Matrix: **SO**

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-536-SA7-SB-0.0-0.5	EFH (C15-C20)	J	2.2	5.1	PQL	mg/Kg	J (all detects)

Method: **8270D SIM**

Matrix: **SO**

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-536-SA7-SB-0.0-0.5	ANTHRACENE	J	0.41	1.7	PQL	ug/Kg	J (all detects)
	BENZO(E)PYRENE	J	4.3	17	PQL	ug/Kg	
	BIS(2-ETHYLHEXYL)PHTHALATE	J	10	18	PQL	ug/Kg	
	Di-n-butylphthalate	J	7.6	18	PQL	ug/Kg	
	FLUORENE	J	0.72	1.7	PQL	ug/Kg	
	NAPHTHALENE	J	1.2	1.7	PQL	ug/Kg	
SL-553-SA7-SB-0.0-0.5	BENZO(B)FLUORANTHENE	J	1.2	1.7	PQL	ug/Kg	J (all detects)
	BIS(2-ETHYLHEXYL)PHTHALATE	J	6.8	18	PQL	ug/Kg	
	CHRYSENE	J	1.1	1.7	PQL	ug/Kg	
	FLUORANTHENE	J	1.2	1.7	PQL	ug/Kg	
	PHENANTHRENE	J	0.68	1.7	PQL	ug/Kg	
	PYRENE	J	1.2	1.7	PQL	ug/Kg	
SL-554-SA7-SB-0.0-0.5	BENZO(E)PYRENE	J	80	180	PQL	ug/Kg	J (all detects)
	PYRENE	J	8.3	17	PQL	ug/Kg	

LDC #: 29836C4

SDG #: PH029

Laboratory: Eurofins Lancaster Laboratories

VALIDATION COMPLETENESS WORKSHEET

ADR

Date: 6/11/13

Page: 1 of 1

Reviewer: [illegible]

2nd Reviewer: [illegible]

METHOD: Metals (EPA SW 846 Method 6010C/6020A/7000)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	–	Sampling dates: 4/11/13
II.	ICP/MS Tune	–	
III.	Calibration	–	
IV.	Blanks	SW	
V.	ICP Interference Check Sample (ICS) Analysis	–	
VI.	Matrix Spike Analysis	N	MS/D (from PH027) → all soil
VII.	Duplicate Sample Analysis	N	Dup ↓
VIII.	Laboratory Control Samples (LCS)	A	LCS/D
IX.	Internal Standard (ICP-MS)	N	
X.	Furnace Atomic Absorption QC	N	
XI.	ICP Serial Dilution	A	
XII.	Sample Result Verification	N	
XIII.	Overall Assessment of Data	N	
XIV.	Field Duplicates	–	
XV	Field Blanks	SW	EB=5 FB=6

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples:

1	SL-553-SA7-SB-0.0-0.5	11		21		31	
2	SL-554-SA7-SB-0.0-0.5	12		22		32	
3	SL-555-SA7-SB-0.0-0.5	13		23		33	
4	SL-536-SA7-SB-0.0-0.5	14		24		34	
5	EB-041113	15		25		35	
6	FB-041113	16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Notes:

LDC #: 29836C4

VALIDATION FINDINGS WORKSHEET
PB/ICB/CCB QUALIFIED SAMPLES

Page: 1 of 1
Reviewer: CR
2nd Reviewer: [illegible]

METHOD: Trace metals (EPA SW 864 Method 6010B/6020/7000) Soil preparation factor applied: 100x Reason: B

Sample Concentration units, unless otherwise noted: mg/Kg Associated Samples: 1-3

Analyte	Maximum PB[a] (mg/Kg)	Maximum PB[a] (ug/L)	Maximum ICB/CCB[a] (ug/L)	Action Level	1	2	3						
As			5.0	2.5									
Be			2.0	1	0.51	0.55	0.58						
Cd			2.0	1	0.23	0.17	0.40						
Co			2.1	1.05									
Cu			3.4	1.7									
Mo			4.6	2.3									
Ni			2.5	1.25									

Sample Concentration units, unless otherwise noted: ~~ug/L~~ mg/L Associated Samples: All Water

Analyte	Maximum PB[a] (mg/Kg)	Maximum PB[a] (ug/L)	Maximum ICB/CCB[a] (ug/L)	Action Level	5	6							
Cu			3.3	0.0165	0.0035	0.0036							
Mo			4.8	0.024	0.0143	0.0036							

Samples with analyte concentrations within five times the associated ICB, CCB or PB concentration are listed above with the identifications from the Validation Completeness Worksheet. These sample results were qualified as not detected, "U".

Note : a - The listed analyte concentration is the highest ICB, CCB, or PB detected in the analysis of each element.

LDC #: 29836C4

VALIDATION FINDINGS WORKSHEET
Field Blanks

Page: 1 of 1
Reviewer: a
2nd Reviewer: [illegible]

METHOD: Trace Metals (EPA SW846 6010B/7000)

Blank units: mg/L **Associated sample units:** mg/Kg Reason: F
Sampling date: 4/11/13 Soil factor applied 100x
Field blank type: (circle one) Field Blank / Rinsate / Other: Associated Samples: All Soil

Analyte	Blank ID	Blank ID	Sample Identification										
	EB-041113	FB-041113	Action Limit	No Qualifiers									
Ca	0.131		65.5										
Cu	0.0035	0.0036	1.8										
Mn	0.0012		0.6										
Mo	0.0143	0.0036	7.15										
Sn	0.0024		1.2										
Zn	0.0041		2.05										

CIRCLED RESULTS WERE NOT QUALIFIED. ALL RESULTS NOT CIRCLED WERE QUALIFIED BY THE FOLLOWING STATEMENT:
Samples with analyte concentrations within five times the associated field blank concentration are listed above, these sample results were qualified as not detected, "U".

Attachment I

Sample ID Cross Reference and Data Review Level

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
12-Apr-2013	TB-041213	7022142	TB	5030B	8015M	III
12-Apr-2013	EB-041213	7022143	EB	METHOD	8315A	III
12-Apr-2013	SL-536-SA7-SB-3.0-4.0	7022144	N	3050B	6010C	III
12-Apr-2013	SL-536-SA7-SB-3.0-4.0	7022144	N	3050B	6020A	III
12-Apr-2013	SL-536-SA7-SB-3.0-4.0	7022144	N	3546	8015M	III
12-Apr-2013	SL-536-SA7-SB-3.0-4.0	7022144	N	3546	8082A	III
12-Apr-2013	SL-536-SA7-SB-3.0-4.0	7022144	N	3546	8270D SIM	III
12-Apr-2013	SL-536-SA7-SB-3.0-4.0	7022144	N	5035A	8015M	III
12-Apr-2013	SL-536-SA7-SB-3.0-4.0	7022144	N	METHOD	1613B	III
12-Apr-2013	SL-536-SA7-SB-3.0-4.0	7022144	N	METHOD	7471B	III
12-Apr-2013	SL-536-SA7-SB-3.0-4.0MS	7022145	MS	3050B	6010C	III
12-Apr-2013	SL-536-SA7-SB-3.0-4.0MS	7022145	MS	3050B	6020A	III
12-Apr-2013	SL-536-SA7-SB-3.0-4.0MS	7022145	MS	3546	8015M	III
12-Apr-2013	SL-536-SA7-SB-3.0-4.0MS	7022145	MS	3546	8082A	III
12-Apr-2013	SL-536-SA7-SB-3.0-4.0MS	7022145	MS	3546	8270D SIM	III
12-Apr-2013	SL-536-SA7-SB-3.0-4.0MS	7022145	MS	5035A	8015M	III
12-Apr-2013	SL-536-SA7-SB-3.0-4.0MS	7022145	MS	METHOD	1613B	III
12-Apr-2013	SL-536-SA7-SB-3.0-4.0MS	7022145	MS	METHOD	7471B	III
12-Apr-2013	SL-536-SA7-SB-3.0-4.0MSD	7022146	MSD	3050B	6010C	III
12-Apr-2013	SL-536-SA7-SB-3.0-4.0MSD	7022146	MSD	3050B	6020A	III
12-Apr-2013	SL-536-SA7-SB-3.0-4.0MSD	7022146	MSD	3546	8015M	III
12-Apr-2013	SL-536-SA7-SB-3.0-4.0MSD	7022146	MSD	3546	8082A	III
12-Apr-2013	SL-536-SA7-SB-3.0-4.0MSD	7022146	MSD	3546	8270D SIM	III
12-Apr-2013	SL-536-SA7-SB-3.0-4.0MSD	7022146	MSD	5035A	8015M	III
12-Apr-2013	SL-536-SA7-SB-3.0-4.0MSD	7022146	MSD	METHOD	1613B	III
12-Apr-2013	SL-536-SA7-SB-3.0-4.0MSD	7022146	MSD	METHOD	7471B	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
12-Apr-2013	SL-536-SA7-SB-3.0-4.0DUP	7022147	DUP	3050B	6010C	III
12-Apr-2013	SL-536-SA7-SB-3.0-4.0DUP	7022147	DUP	3050B	6020A	III
12-Apr-2013	SL-536-SA7-SB-3.0-4.0DUP	7022147	DUP	METHOD	7471B	III
12-Apr-2013	SL-836-SA7-SB-3.0-4.0	7022148	FD	3050B	6010C	III
12-Apr-2013	SL-836-SA7-SB-3.0-4.0	7022148	FD	3050B	6020A	III
12-Apr-2013	SL-836-SA7-SB-3.0-4.0	7022148	FD	3546	8015M	III
12-Apr-2013	SL-836-SA7-SB-3.0-4.0	7022148	FD	3546	8082A	III
12-Apr-2013	SL-836-SA7-SB-3.0-4.0	7022148	FD	3546	8270D SIM	III
12-Apr-2013	SL-836-SA7-SB-3.0-4.0	7022148	FD	5035A	8015M	III
12-Apr-2013	SL-836-SA7-SB-3.0-4.0	7022148	FD	METHOD	1613B	III
12-Apr-2013	SL-836-SA7-SB-3.0-4.0	7022148	FD	METHOD	7471B	III
12-Apr-2013	SL-535-SA7-SB-0.0-0.5	7022149	N	3050B	6010C	III
12-Apr-2013	SL-535-SA7-SB-0.0-0.5	7022149	N	3050B	6020A	III
12-Apr-2013	SL-535-SA7-SB-0.0-0.5	7022149	N	3546	8015M	III
12-Apr-2013	SL-535-SA7-SB-0.0-0.5	7022149	N	3546	8082A	III
12-Apr-2013	SL-535-SA7-SB-0.0-0.5	7022149	N	3546	8270D SIM	III
12-Apr-2013	SL-535-SA7-SB-0.0-0.5	7022149	N	METHOD	1613B	III
12-Apr-2013	SL-535-SA7-SB-0.0-0.5	7022149	N	METHOD	7471B	III
12-Apr-2013	SL-535-SA7-SB-4.0-5.0	7022150	N	3050B	6010C	III
12-Apr-2013	SL-535-SA7-SB-4.0-5.0	7022150	N	3050B	6020A	III
12-Apr-2013	SL-535-SA7-SB-4.0-5.0	7022150	N	3546	8015M	III
12-Apr-2013	SL-535-SA7-SB-4.0-5.0	7022150	N	3546	8082A	III
12-Apr-2013	SL-535-SA7-SB-4.0-5.0	7022150	N	3546	8270D SIM	III
12-Apr-2013	SL-535-SA7-SB-4.0-5.0	7022150	N	5035A	8015M	III
12-Apr-2013	SL-535-SA7-SB-4.0-5.0	7022150	N	METHOD	1613B	III
12-Apr-2013	SL-535-SA7-SB-4.0-5.0	7022150	N	METHOD	7471B	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
12-Apr-2013	SL-535-SA7-SB-9.0-10.0	7022151	N	3050B	6010C	III
12-Apr-2013	SL-535-SA7-SB-9.0-10.0	7022151	N	3050B	6020A	III
12-Apr-2013	SL-535-SA7-SB-9.0-10.0	7022151	N	3546	8015M	III
12-Apr-2013	SL-535-SA7-SB-9.0-10.0	7022151	N	3546	8082A	III
12-Apr-2013	SL-535-SA7-SB-9.0-10.0	7022151	N	3546	8270D SIM	III
12-Apr-2013	SL-535-SA7-SB-9.0-10.0	7022151	N	5035A	8015M	III
12-Apr-2013	SL-535-SA7-SB-9.0-10.0	7022151	N	METHOD	1613B	III
12-Apr-2013	SL-535-SA7-SB-9.0-10.0	7022151	N	METHOD	7471B	III
12-Apr-2013	SL-534-SA7-SB-0.0-0.5	7022152	N	3050B	6010C	III
12-Apr-2013	SL-534-SA7-SB-0.0-0.5	7022152	N	3050B	6020A	III
12-Apr-2013	SL-534-SA7-SB-0.0-0.5	7022152	N	3546	8015M	III
12-Apr-2013	SL-534-SA7-SB-0.0-0.5	7022152	N	3546	8082A	III
12-Apr-2013	SL-534-SA7-SB-0.0-0.5	7022152	N	3546	8270D SIM	III
12-Apr-2013	SL-534-SA7-SB-0.0-0.5	7022152	N	METHOD	1613B	III
12-Apr-2013	SL-534-SA7-SB-0.0-0.5	7022152	N	METHOD	7471B	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Attachment II

Overall Data Qualification Summary

Data Qualifier Summary

Lab Reporting Batch ID: PH030 **Laboratory: LL**

EDD Filename: PrepPH030 **eQAPP Name: CDM_SSFL_130621_Lan**

Method Category: **METALS**

Method: **6010C** ***Matrix:*** **SO**

Sample ID: **SL-534-SA7-SB-0.0-0.5** ***Collected:*** **4/12/2013 2:30:00** ***Analysis Type:*** **RES/TOT** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	1.96	J	0.519	MDL	4.15	PQL	mg/Kg	J	Z, Q
ARSENIC	2.83	J	0.343	MDL	4.15	PQL	mg/Kg	J	Z
BERYLLIUM	0.592	J	0.0696	MDL	1.04	PQL	mg/Kg	J	Z
BORON	4.80	J	0.862	MDL	10.4	PQL	mg/Kg	J	Z
CADMIUM	0.533	J	0.0343	MDL	1.04	PQL	mg/Kg	J	Z
MOLYBDENUM	0.335	J	0.177	MDL	2.08	PQL	mg/Kg	U	F, F
PHOSPHORUS	532		0.530	MDL	10.4	PQL	mg/Kg	J	Q
POTASSIUM	4390		14.0	MDL	104	PQL	mg/Kg	J	Q
SODIUM	60.8	J	17.3	MDL	104	PQL	mg/Kg	J	Z
TIN	2.76	J	0.228	MDL	10.4	PQL	mg/Kg	U	B
Zirconium	1.13	J	0.862	MDL	5.19	PQL	mg/Kg	J	Z

Sample ID: **SL-535-SA7-SB-0.0-0.5** ***Collected:*** **4/12/2013 10:30:00** ***Analysis Type:*** **RES/TOT** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	1.78	J	0.499	MDL	3.99	PQL	mg/Kg	J	Z, Q
ARSENIC	2.11	J	0.329	MDL	3.99	PQL	mg/Kg	J	Z
BERYLLIUM	0.521	J	0.0669	MDL	0.998	PQL	mg/Kg	J	Z
BORON	3.82	J	0.828	MDL	9.98	PQL	mg/Kg	J	Z
CADMIUM	0.541	J	0.0329	MDL	0.998	PQL	mg/Kg	J	Z
MOLYBDENUM	0.281	J	0.170	MDL	2.00	PQL	mg/Kg	U	F, F
PHOSPHORUS	484		0.509	MDL	9.98	PQL	mg/Kg	J	Q
POTASSIUM	4110		13.5	MDL	99.8	PQL	mg/Kg	J	Q
SODIUM	61.6	J	16.7	MDL	99.8	PQL	mg/Kg	J	Z
TIN	2.69	J	0.220	MDL	9.98	PQL	mg/Kg	U	B

Sample ID: **SL-535-SA7-SB-4.0-5.0** ***Collected:*** **4/12/2013 10:57:00** ***Analysis Type:*** **RES/TOT** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	2.47	J	0.506	MDL	4.05	PQL	mg/Kg	J	Z, Q
ARSENIC	2.17	J	0.334	MDL	4.05	PQL	mg/Kg	J	Z
BERYLLIUM	0.596	J	0.0678	MDL	1.01	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3 Subarea 7

Data Qualifier Summary

Lab Reporting Batch ID: PH030 **Laboratory: LL**

EDD Filename: PrepPH030 **eQAPP Name: CDM_SSFL_130621_Lan**

Method Category: **METALS**

Method: **6010C** ***Matrix:*** **SO**

Sample ID: **SL-535-SA7-SB-4.0-5.0** ***Collected:*** **4/12/2013 10:57:00** ***Analysis Type:*** **RES/TOT** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BORON	2.92	J	0.840	MDL	10.1	PQL	mg/Kg	J	Z
CADMIUM	0.603	J	0.0334	MDL	1.01	PQL	mg/Kg	J	Z
MOLYBDENUM	0.331	J	0.172	MDL	2.02	PQL	mg/Kg	U	F, F
PHOSPHORUS	531		0.516	MDL	10.1	PQL	mg/Kg	J	Q
POTASSIUM	4100		13.7	MDL	101	PQL	mg/Kg	J	Q
SODIUM	70.7	J	16.9	MDL	101	PQL	mg/Kg	J	Z
TIN	2.73	J	0.223	MDL	10.1	PQL	mg/Kg	U	B
Zirconium	1.05	J	0.840	MDL	5.06	PQL	mg/Kg	J	Z

Sample ID: **SL-535-SA7-SB-9.0-10.0** ***Collected:*** **4/12/2013 11:30:00** ***Analysis Type:*** **RES/TOT** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	2.10	J	0.508	MDL	4.06	PQL	mg/Kg	J	Z, Q
ARSENIC	2.20	J	0.335	MDL	4.06	PQL	mg/Kg	J	Z
BERYLLIUM	0.546	J	0.0680	MDL	1.02	PQL	mg/Kg	J	Z
BORON	2.37	J	0.843	MDL	10.2	PQL	mg/Kg	J	Z
CADMIUM	0.511	J	0.0335	MDL	1.02	PQL	mg/Kg	J	Z
MOLYBDENUM	0.486	J	0.173	MDL	2.03	PQL	mg/Kg	U	F, F
PHOSPHORUS	470		0.518	MDL	10.2	PQL	mg/Kg	J	Q
POTASSIUM	3650		13.7	MDL	102	PQL	mg/Kg	J	Q
SODIUM	71.3	J	17.0	MDL	102	PQL	mg/Kg	J	Z
TIN	2.86	J	0.223	MDL	10.2	PQL	mg/Kg	U	B

Sample ID: **SL-536-SA7-SB-3.0-4.0** ***Collected:*** **4/12/2013 8:50:00** ***Analysis Type:*** **RES/TOT** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	1.58	J	0.494	MDL	3.95	PQL	mg/Kg	J	Z, Q
ARSENIC	2.06	J	0.326	MDL	3.95	PQL	mg/Kg	J	Z
BERYLLIUM	0.482	J	0.0661	MDL	0.987	PQL	mg/Kg	J	Z
BORON	3.20	J	0.819	MDL	9.87	PQL	mg/Kg	J	Z
CADMIUM	0.420	J	0.0326	MDL	0.987	PQL	mg/Kg	J	Z
MOLYBDENUM	1.23	J	0.168	MDL	1.97	PQL	mg/Kg	UJ	FD, F, F

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3 Subarea 7

Data Qualifier Summary

Lab Reporting Batch ID: PH030 **Laboratory: LL**

EDD Filename: PrepPH030 **eQAPP Name: CDM_SSFL_130621_Lan**

Method Category: **METALS**

Method: **6010C** ***Matrix:*** **SO**

Sample ID: **SL-536-SA7-SB-3.0-4.0** ***Collected:*** **4/12/2013 8:50:00** ***Analysis Type:*** **RES/TOT** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
PHOSPHORUS	367		0.503	MDL	9.87	PQL	mg/Kg	J	Q
POTASSIUM	2760		13.3	MDL	98.7	PQL	mg/Kg	J	Q
SODIUM	61.3	J	16.5	MDL	98.7	PQL	mg/Kg	J	Z
TIN	2.92	J	0.217	MDL	9.87	PQL	mg/Kg	U	B
Zirconium	1.11	J	0.819	MDL	4.94	PQL	mg/Kg	J	Z, FD

Sample ID: **SL-836-SA7-SB-3.0-4.0** ***Collected:*** **4/12/2013 9:00:00** ***Analysis Type:*** **RES/TOT** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	1.47	J	0.495	MDL	3.96	PQL	mg/Kg	J	Z, Q
ARSENIC	2.38	J	0.326	MDL	3.96	PQL	mg/Kg	J	Z
BERYLLIUM	0.501	J	0.0663	MDL	0.989	PQL	mg/Kg	J	Z
BORON	2.90	J	0.821	MDL	9.89	PQL	mg/Kg	J	Z
CADMIUM	0.453	J	0.0326	MDL	0.989	PQL	mg/Kg	J	Z
MOLYBDENUM	0.271	J	0.168	MDL	1.98	PQL	mg/Kg	UJ	FD, F, F
PHOSPHORUS	344		0.505	MDL	9.89	PQL	mg/Kg	J	Q
POTASSIUM	2710		13.4	MDL	98.9	PQL	mg/Kg	J	Q
SODIUM	59.4	J	16.5	MDL	98.9	PQL	mg/Kg	J	Z
TIN	2.71	J	0.218	MDL	9.89	PQL	mg/Kg	U	B
Zirconium	4.95	U	0.821	MDL	4.95	PQL	mg/Kg	UJ	FD

Method Category: **METALS**

Method: **6020A** ***Matrix:*** **SO**

Sample ID: **SL-534-SA7-SB-0.0-0.5** ***Collected:*** **4/12/2013 2:30:00** ***Analysis Type:*** **RES/TOT** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SILVER	0.0407	J	0.0208	MDL	0.208	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3 Subarea 7

Data Qualifier Summary

Lab Reporting Batch ID: PH030 **Laboratory: LL**

EDD Filename: PrepPH030 **eQAPP Name: CDM_SSFL_130621_Lan**

Method Category: **METALS**

Method: **6020A** ***Matrix:*** **SO**

Sample ID: **SL-535-SA7-SB-4.0-5.0** ***Collected:*** **4/12/2013 10:57:00** ***Analysis Type:*** **REA/TOT** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.166	J	0.101	MDL	0.405	PQL	mg/Kg	J	Z

Sample ID: **SL-535-SA7-SB-4.0-5.0** ***Collected:*** **4/12/2013 10:57:00** ***Analysis Type:*** **RES/TOT** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SILVER	0.0452	J	0.0202	MDL	0.202	PQL	mg/Kg	J	Z

Sample ID: **SL-535-SA7-SB-9.0-10.0** ***Collected:*** **4/12/2013 11:30:00** ***Analysis Type:*** **REA/TOT** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.119	J	0.102	MDL	0.406	PQL	mg/Kg	J	Z

Sample ID: **SL-535-SA7-SB-9.0-10.0** ***Collected:*** **4/12/2013 11:30:00** ***Analysis Type:*** **RES/TOT** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SILVER	0.0260	J	0.0203	MDL	0.203	PQL	mg/Kg	J	Z

Sample ID: **SL-536-SA7-SB-3.0-4.0** ***Collected:*** **4/12/2013 8:50:00** ***Analysis Type:*** **RES/TOT** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SILVER	0.0307	J	0.0197	MDL	0.197	PQL	mg/Kg	J	Z, FD

Sample ID: **SL-836-SA7-SB-3.0-4.0** ***Collected:*** **4/12/2013 9:00:00** ***Analysis Type:*** **RES/TOT** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SILVER	0.198	U	0.0198	MDL	0.198	PQL	mg/Kg	UJ	FD

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3 Subarea 7

Data Qualifier Summary

Lab Reporting Batch ID: PH030 **Laboratory: LL**

EDD Filename: PrepPH030 **eQAPP Name: CDM_SSFL_130621_Lan**

Method Category: METALS

Method: 7471B **Matrix: SO**

Sample ID: SL-534-SA7-SB-0.0-0.5 *Collected:* 4/12/2013 2:30:00 *Analysis Type:* RES/TOT *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0188	J	0.0107	MDL	0.0207	PQL	mg/Kg	J	Z

Sample ID: SL-535-SA7-SB-0.0-0.5 *Collected:* 4/12/2013 10:30:00 *Analysis Type:* RES/TOT *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0151	J	0.0104	MDL	0.0202	PQL	mg/Kg	J	Z

Sample ID: SL-535-SA7-SB-4.0-5.0 *Collected:* 4/12/2013 10:57:00 *Analysis Type:* RES/TOT *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0108	J	0.0104	MDL	0.0201	PQL	mg/Kg	J	Z

Sample ID: SL-535-SA7-SB-9.0-10.0 *Collected:* 4/12/2013 11:30:00 *Analysis Type:* RES/TOT *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0149	J	0.0108	MDL	0.0208	PQL	mg/Kg	J	Z

Method Category: SVOA

Method: 1613B **Matrix: SO**

Sample ID: SL-534-SA7-SB-0.0-0.5 *Collected:* 4/12/2013 2:30:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDF	2.74	JB	0.0189	MDL	5.15	PQL	ng/Kg	J	Z
1,2,3,4,7,8,9-HPCDF	0.289	JB	0.0248	MDL	5.15	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HxCDD	0.336	JB	0.0407	MDL	5.15	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HXCDF	0.253	JB	0.0291	MDL	5.15	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDD	0.701	JB	0.0411	MDL	5.15	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.204	JBQ	0.0278	MDL	5.15	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDD	0.976	J	0.0392	MDL	5.15	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.166	JBQ	0.0303	MDL	5.15	PQL	ng/Kg	U	B
1,2,3,7,8-PECDD	0.344	J	0.0346	MDL	5.15	PQL	ng/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3 Subarea 7

Data Qualifier Summary

Lab Reporting Batch ID: PH030 **Laboratory: LL**

EDD Filename: PrepPH030 **eQAPP Name: CDM_SSFL_130621_Lan**

Method Category: **SVOA**

Method: **1613B** ***Matrix:*** **SO**

Sample ID: **SL-534-SA7-SB-0.0-0.5** ***Collected:*** **4/12/2013 2:30:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,7,8-PECDF	0.118	JBQ	0.0188	MDL	5.15	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.349	JBQ	0.0275	MDL	5.15	PQL	ng/Kg	J	Z
2,3,4,7,8-PECDF	0.156	JBQ	0.0173	MDL	5.15	PQL	ng/Kg	J	Z
2,3,7,8-TCDD	0.0346	JBQ	0.0296	MDL	1.03	PQL	ng/Kg	U	B
2,3,7,8-TCDF	0.0508	JQ	0.0409	MDL	1.03	PQL	ng/Kg	J	Z
OCDF	5.52	JB	0.0250	MDL	10.3	PQL	ng/Kg	J	Z

Sample ID: **SL-535-SA7-SB-0.0-0.5** ***Collected:*** **4/12/2013 10:30:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDF	3.82	JB	0.0221	MDL	5.10	PQL	ng/Kg	J	Z
1,2,3,4,7,8,9-HPCDF	0.319	JB	0.0258	MDL	5.10	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HxCDD	0.853	JB	0.0383	MDL	5.10	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HXCDF	0.329	JB	0.0294	MDL	5.10	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDD	1.87	JB	0.0392	MDL	5.10	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.323	JBQ	0.0286	MDL	5.10	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDD	1.51	J	0.0366	MDL	5.10	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.215	JBQ	0.0289	MDL	5.10	PQL	ng/Kg	U	B
1,2,3,7,8-PECDD	0.576	JQ	0.0373	MDL	5.10	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	0.421	JB	0.0209	MDL	5.10	PQL	ng/Kg	J	Z
2,3,4,6,7,8-HXCDF	0.359	JB	0.0286	MDL	5.10	PQL	ng/Kg	J	Z
2,3,4,7,8-PECDF	0.380	JB	0.0197	MDL	5.10	PQL	ng/Kg	J	Z
2,3,7,8-TCDD	0.166	JB	0.0277	MDL	1.02	PQL	ng/Kg	U	B
2,3,7,8-TCDF	0.197	JQ	0.0411	MDL	1.02	PQL	ng/Kg	J	Z
OCDF	7.05	JB	0.0215	MDL	10.2	PQL	ng/Kg	J	Z

Sample ID: **SL-535-SA7-SB-4.0-5.0** ***Collected:*** **4/12/2013 10:57:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	1.55	JB	0.0229	MDL	5.19	PQL	ng/Kg	J	Z
1,2,3,4,6,7,8-HPCDF	0.220	JB	0.00945	MDL	5.19	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.0491	JBQ	0.0125	MDL	5.19	PQL	ng/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3 Subarea 7

Data Qualifier Summary

Lab Reporting Batch ID: PH030 **Laboratory: LL**

EDD Filename: PrepPH030 **eQAPP Name: CDM_SSFL_130621_Lan**

Method Category: **SVOA**

Method: **1613B** ***Matrix:*** **SO**

Sample ID: **SL-535-SA7-SB-4.0-5.0** ***Collected:*** **4/12/2013 10:57:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,7,8-HxCDD	0.0713	JB	0.0228	MDL	5.19	PQL	ng/Kg	U	B
1,2,3,4,7,8-HXCDF	0.0686	JB	0.0148	MDL	5.19	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.110	JB	0.0232	MDL	5.19	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.0431	JB	0.0142	MDL	5.19	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.108	J	0.0214	MDL	5.19	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.110	JBQ	0.0145	MDL	5.19	PQL	ng/Kg	U	B
1,2,3,7,8-PECDD	0.0750	JQ	0.0227	MDL	5.19	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	0.124	JBQ	0.0117	MDL	5.19	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.0628	JB	0.0137	MDL	5.19	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.124	JB	0.0111	MDL	5.19	PQL	ng/Kg	U	B
2,3,7,8-TCDF	0.0363	JQ	0.0212	MDL	1.04	PQL	ng/Kg	J	Z
OCDF	0.470	JB	0.0214	MDL	10.4	PQL	ng/Kg	J	Z

Sample ID: **SL-535-SA7-SB-9.0-10.0** ***Collected:*** **4/12/2013 11:30:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	0.256	JB	0.0200	MDL	5.18	PQL	ng/Kg	U	B
1,2,3,4,6,7,8-HPCDF	0.0660	JBQ	0.00688	MDL	5.18	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.0401	JBQ	0.0101	MDL	5.18	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.0280	JBQ	0.0171	MDL	5.18	PQL	ng/Kg	U	B
1,2,3,4,7,8-HXCDF	0.0419	JBQ	0.00984	MDL	5.18	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.0413	JBQ	0.0177	MDL	5.18	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDF	0.0241	JBQ	0.00914	MDL	5.18	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDF	0.0462	JBQ	0.0102	MDL	5.18	PQL	ng/Kg	U	B
1,2,3,7,8-PECDD	0.0562	JQ	0.0229	MDL	5.18	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	0.0848	JBQ	0.0107	MDL	5.18	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.0231	JBQ	0.00947	MDL	5.18	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.0548	JB	0.00993	MDL	5.18	PQL	ng/Kg	U	B
2,3,7,8-TCDD	0.0291	JBQ	0.0235	MDL	1.04	PQL	ng/Kg	U	B
OCDD	1.74	JB	0.0185	MDL	10.4	PQL	ng/Kg	J	Z
OCDF	0.121	JBQ	0.0196	MDL	10.4	PQL	ng/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3 Subarea 7

Data Qualifier Summary

Lab Reporting Batch ID: PH030 **Laboratory: LL**

EDD Filename: PrepPH030 **eQAPP Name: CDM_SSFL_130621_Lan**

Method Category: **SVOA**

Method: **1613B** ***Matrix:*** **SO**

Sample ID: **SL-536-SA7-SB-3.0-4.0** ***Collected:*** **4/12/2013 8:50:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	18.2	B	0.0430	MDL	5.02	PQL	ng/Kg	J	Q, FD
1,2,3,4,6,7,8-HPCDF	2.14	JB	0.0220	MDL	5.02	PQL	ng/Kg	J	Z, FD
1,2,3,4,7,8,9-HPCDF	0.194	JBQ	0.0284	MDL	5.02	PQL	ng/Kg	UJ	B, FD
1,2,3,4,7,8-HxCDD	0.287	JB	0.0472	MDL	5.02	PQL	ng/Kg	J	Z, FD
1,2,3,4,7,8-HXCDF	0.0916	JB	0.0374	MDL	5.02	PQL	ng/Kg	UJ	B, FD
1,2,3,6,7,8-HXCDD	0.778	JB	0.0484	MDL	5.02	PQL	ng/Kg	J	Z, FD
1,2,3,6,7,8-HXCDF	0.157	JB	0.0348	MDL	5.02	PQL	ng/Kg	UJ	B, FD
1,2,3,7,8,9-HXCDD	0.575	J	0.0440	MDL	5.02	PQL	ng/Kg	J	Z, FD
1,2,3,7,8,9-HXCDF	0.0426	JBQ	0.0404	MDL	5.02	PQL	ng/Kg	UJ	B, FD
1,2,3,7,8-PECDD	0.238	JQ	0.0493	MDL	5.02	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	0.0801	JB	0.0276	MDL	5.02	PQL	ng/Kg	UJ	B, FD
2,3,4,6,7,8-HXCDF	0.189	JBQ	0.0364	MDL	5.02	PQL	ng/Kg	J	Z, FD
2,3,4,7,8-PECDF	0.0632	JBQ	0.0262	MDL	5.02	PQL	ng/Kg	UJ	B, FD
2,3,7,8-TCDD	1.00	U	0.0540	MDL	1.00	PQL	ng/Kg	UJ	FD
2,3,7,8-TCDF	1.00	U	0.0483	MDL	1.00	PQL	ng/Kg	UJ	FD
OCDD	150	B	0.0476	MDL	10.0	PQL	ng/Kg	J	Q, Q, FD
OCDF	3.87	JB	0.0387	MDL	10.0	PQL	ng/Kg	J	Z, FD

Sample ID: **SL-836-SA7-SB-3.0-4.0** ***Collected:*** **4/12/2013 9:00:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	38.9	B	0.0387	MDL	5.13	PQL	ng/Kg	J	FD
1,2,3,4,6,7,8-HPCDF	5.29	B	0.0198	MDL	5.13	PQL	ng/Kg	J	FD
1,2,3,4,7,8,9-HPCDF	0.529	JB	0.0274	MDL	5.13	PQL	ng/Kg	J	Z, FD
1,2,3,4,7,8-HxCDD	0.724	JB	0.0326	MDL	5.13	PQL	ng/Kg	J	Z, FD
1,2,3,4,7,8-HXCDF	0.302	JB	0.0306	MDL	5.13	PQL	ng/Kg	J	Z, FD
1,2,3,6,7,8-HXCDD	1.87	JB	0.0322	MDL	5.13	PQL	ng/Kg	J	Z, FD
1,2,3,6,7,8-HXCDF	0.396	JB	0.0285	MDL	5.13	PQL	ng/Kg	J	Z, FD
1,2,3,7,8,9-HXCDD	1.41	J	0.0302	MDL	5.13	PQL	ng/Kg	J	Z, FD
1,2,3,7,8,9-HXCDF	0.187	JB	0.0297	MDL	5.13	PQL	ng/Kg	UJ	B, FD
1,2,3,7,8-PECDD	0.380	J	0.0346	MDL	5.13	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	0.260	JBQ	0.0187	MDL	5.13	PQL	ng/Kg	UJ	B, FD

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3 Subarea 7

Data Qualifier Summary

Lab Reporting Batch ID: PH030 **Laboratory: LL**

EDD Filename: PrepPH030 **eQAPP Name: CDM_SSFL_130621_Lan**

Method Category: SVOA
Method: 1613B **Matrix:** SO

Sample ID: SL-836-SA7-SB-3.0-4.0 *Collected:* 4/12/2013 9:00:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,3,4,6,7,8-HXCDF	0.439	JB	0.0267	MDL	5.13	PQL	ng/Kg	J	Z, FD
2,3,4,7,8-PECDF	0.231	JB	0.0179	MDL	5.13	PQL	ng/Kg	J	Z, FD
2,3,7,8-TCDD	0.0709	JBQ	0.0244	MDL	1.03	PQL	ng/Kg	UJ	B, FD
2,3,7,8-TCDF	0.0308	JQ	0.0269	MDL	1.03	PQL	ng/Kg	J	Z, FD
OCDD	358	B	0.0358	MDL	10.3	PQL	ng/Kg	J	FD
OCDF	9.39	JB	0.0276	MDL	10.3	PQL	ng/Kg	J	Z, FD

Method Category: SVOA
Method: 8015M **Matrix:** SO

Sample ID: SL-534-SA7-SB-0.0-0.5 *Collected:* 4/12/2013 2:30:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C15-C20)	3.6	J	2.1	MDL	5.2	PQL	mg/Kg	J	Z

Sample ID: SL-535-SA7-SB-0.0-0.5 *Collected:* 4/12/2013 10:30:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C15-C20)	3.5	J	2.1	MDL	5.1	PQL	mg/Kg	J	Z

Sample ID: SL-536-SA7-SB-3.0-4.0 *Collected:* 4/12/2013 8:50:00 *Analysis Type:* REA *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C21-C30)	6.7		2.1	MDL	5.1	PQL	mg/Kg	J	Q, Q, FD
EFH (C30-C40)	14		4.1	MDL	10	PQL	mg/Kg	J	Q, Q, FD

Sample ID: SL-836-SA7-SB-3.0-4.0 *Collected:* 4/12/2013 9:00:00 *Analysis Type:* REA *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C21-C30)	5.1	U	2.1	MDL	5.1	PQL	mg/Kg	UJ	FD
EFH (C30-C40)	10	U	4.1	MDL	10	PQL	mg/Kg	UJ	FD

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3 Subarea 7

Data Qualifier Summary

Lab Reporting Batch ID: PH030 **Laboratory: LL**

EDD Filename: PrepPH030 **eQAPP Name: CDM_SSFL_130621_Lan**

Method Category: **SVOA**

Method: **8270D SIM** ***Matrix:*** **SO**

Sample ID: **SL-534-SA7-SB-0.0-0.5** ***Collected:*** **4/12/2013 2:30:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(A)PYRENE	0.91	J	0.69	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(B)FLUORANTHENE	1.4	J	0.69	MDL	1.7	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	9.3	J	6.2	MDL	19	PQL	ug/Kg	J	Z
CHRYSENE	1.5	J	0.34	MDL	1.7	PQL	ug/Kg	J	Z
FLUORENE	1.4	J	0.69	MDL	1.7	PQL	ug/Kg	J	Z
NAPHTHALENE	0.83	J	0.69	MDL	1.7	PQL	ug/Kg	U	F
PHENANTHRENE	1.1	J	0.69	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: **SL-535-SA7-SB-0.0-0.5** ***Collected:*** **4/12/2013 10:30:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(B)FLUORANTHENE	1.2	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	6.3	J	6.1	MDL	18	PQL	ug/Kg	J	Z
CHRYSENE	1.1	J	0.34	MDL	1.7	PQL	ug/Kg	J	Z
FLUORANTHENE	1.1	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
FLUORENE	0.79	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
PHENANTHRENE	0.76	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
PYRENE	1.2	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: **SL-536-SA7-SB-3.0-4.0** ***Collected:*** **4/12/2013 8:50:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(A)ANTHRACENE	0.98	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	1.2	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	1.1	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	0.89	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	0.91	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
PHENANTHRENE	1.2	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
PYRENE	2.6		0.68	MDL	1.7	PQL	ug/Kg	J	Q

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3 Subarea 7

Data Qualifier Summary

Lab Reporting Batch ID: PH030 **Laboratory: LL**

EDD Filename: PrepPH030 **eQAPP Name: CDM_SSFL_130621_Lan**

Method Category: **SVOA**

Method: **8270D SIM** ***Matrix:*** **SO**

Sample ID: **SL-836-SA7-SB-3.0-4.0** ***Collected:*** **4/12/2013 9:00:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(A)ANTHRACENE	0.91	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	1.5	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	1.0	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	1.3	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z

Method Category: **SVOA**

Method: **8315A** ***Matrix:*** **AQ**

Sample ID: **EB-041213** ***Collected:*** **4/12/2013 8:05:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FORMALDEHYDE	50	U	30	MDL	50	PQL	ug/L	UJ	E

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: PH030 **Laboratory: LL**

EDD Filename: PrepPH030 **eQAPP Name: CDM_SSFL_130621_Lan**

Reason Code Legend

Reason Code	*Description*
B	Method Blank Contamination
E	Laboratory Control Precision
E	Laboratory Duplicate Precision
E	Matrix Spike Precision
F	Equipment Blank Contamination
F	Field Blank Contamination
FD	Field Duplicate Precision
L	Laboratory Control Precision
Q	Laboratory Duplicate Precision
Q	Matrix Spike Lower Estimation
Q	Matrix Spike Precision
Q	Matrix Spike Upper Estimation
S	Surrogate/Tracer Recovery Upper Estimation
Z	Reporting Limit Trace Value

* denotes a non-reportable result

Enclosure I

Level III ADR Outliers
(including Manual Review Outliers)

Quality Control Outlier Reports

PH030

Method Blank Outlier Report

Lab Reporting Batch ID: PH030 **Laboratory: LL**

EDD Filename: PrepPH030 **eQAPP Name: CDM_SSFL_130621_Lan**

Method: **1613B**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
BLK1060B371944	4/17/2013 7:44:00 PM	1,2,3,4,6,7,8-HPCDD	0.0840 ng/Kg	SL-534-SA7-SB-0.0-0.5
		1,2,3,4,6,7,8-HPCDF	0.0530 ng/Kg	SL-535-SA7-SB-0.0-0.5
		1,2,3,4,7,8,9-HPCDF	0.0413 ng/Kg	SL-535-SA7-SB-4.0-5.0
		1,2,3,4,7,8-HxCDD	0.0315 ng/Kg	SL-535-SA7-SB-9.0-10.0
		1,2,3,4,7,8-HXCDF	0.0446 ng/Kg	SL-536-SA7-SB-3.0-4.0
		1,2,3,6,7,8-HXCDD	0.0201 ng/Kg	SL-836-SA7-SB-3.0-4.0
		1,2,3,6,7,8-HXCDF	0.0356 ng/Kg	
		1,2,3,7,8,9-HXCDF	0.0566 ng/Kg	
		1,2,3,7,8-PECDF	0.0560 ng/Kg	
		2,3,4,6,7,8-HXCDF	0.0222 ng/Kg	
		2,3,4,7,8-PECDF	0.0310 ng/Kg	
		2,3,7,8-TCDD	0.0457 ng/Kg	
		OCDD	0.121 ng/Kg	
		OCDF	0.0815 ng/Kg	

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-534-SA7-SB-0.0-0.5(RES)	1,2,3,7,8,9-HXCDF	0.166 ng/Kg	0.166U ng/Kg
SL-534-SA7-SB-0.0-0.5(RES)	1,2,3,7,8-PECDF	0.118 ng/Kg	0.118U ng/Kg
SL-534-SA7-SB-0.0-0.5(RES)	2,3,7,8-TCDD	0.0346 ng/Kg	0.0346U ng/Kg
SL-535-SA7-SB-0.0-0.5(RES)	1,2,3,7,8,9-HXCDF	0.215 ng/Kg	0.215U ng/Kg
SL-535-SA7-SB-0.0-0.5(RES)	2,3,7,8-TCDD	0.166 ng/Kg	0.166U ng/Kg
SL-535-SA7-SB-4.0-5.0(RES)	1,2,3,4,6,7,8-HPCDF	0.220 ng/Kg	0.220U ng/Kg
SL-535-SA7-SB-4.0-5.0(RES)	1,2,3,4,7,8,9-HPCDF	0.0491 ng/Kg	0.0491U ng/Kg
SL-535-SA7-SB-4.0-5.0(RES)	1,2,3,4,7,8-HxCDD	0.0713 ng/Kg	0.0713U ng/Kg
SL-535-SA7-SB-4.0-5.0(RES)	1,2,3,4,7,8-HXCDF	0.0686 ng/Kg	0.0686U ng/Kg
SL-535-SA7-SB-4.0-5.0(RES)	1,2,3,6,7,8-HXCDF	0.0431 ng/Kg	0.0431U ng/Kg
SL-535-SA7-SB-4.0-5.0(RES)	1,2,3,7,8,9-HXCDF	0.110 ng/Kg	0.110U ng/Kg
SL-535-SA7-SB-4.0-5.0(RES)	1,2,3,7,8-PECDF	0.124 ng/Kg	0.124U ng/Kg
SL-535-SA7-SB-4.0-5.0(RES)	2,3,4,6,7,8-HXCDF	0.0628 ng/Kg	0.0628U ng/Kg
SL-535-SA7-SB-4.0-5.0(RES)	2,3,4,7,8-PECDF	0.124 ng/Kg	0.124U ng/Kg
SL-535-SA7-SB-9.0-10.0(RES)	1,2,3,4,6,7,8-HPCDD	0.256 ng/Kg	0.256U ng/Kg
SL-535-SA7-SB-9.0-10.0(RES)	1,2,3,4,6,7,8-HPCDF	0.0660 ng/Kg	0.0660U ng/Kg
SL-535-SA7-SB-9.0-10.0(RES)	1,2,3,4,7,8,9-HPCDF	0.0401 ng/Kg	0.0401U ng/Kg
SL-535-SA7-SB-9.0-10.0(RES)	1,2,3,4,7,8-HxCDD	0.0280 ng/Kg	0.0280U ng/Kg
SL-535-SA7-SB-9.0-10.0(RES)	1,2,3,4,7,8-HXCDF	0.0419 ng/Kg	0.0419U ng/Kg
SL-535-SA7-SB-9.0-10.0(RES)	1,2,3,6,7,8-HXCDD	0.0413 ng/Kg	0.0413U ng/Kg
SL-535-SA7-SB-9.0-10.0(RES)	1,2,3,6,7,8-HXCDF	0.0241 ng/Kg	0.0241U ng/Kg
SL-535-SA7-SB-9.0-10.0(RES)	1,2,3,7,8,9-HXCDF	0.0462 ng/Kg	0.0462U ng/Kg
SL-535-SA7-SB-9.0-10.0(RES)	1,2,3,7,8-PECDF	0.0848 ng/Kg	0.0848U ng/Kg
SL-535-SA7-SB-9.0-10.0(RES)	2,3,4,6,7,8-HXCDF	0.0231 ng/Kg	0.0231U ng/Kg
SL-535-SA7-SB-9.0-10.0(RES)	2,3,4,7,8-PECDF	0.0548 ng/Kg	0.0548U ng/Kg
SL-535-SA7-SB-9.0-10.0(RES)	2,3,7,8-TCDD	0.0291 ng/Kg	0.0291U ng/Kg
SL-535-SA7-SB-9.0-10.0(RES)	OCDF	0.121 ng/Kg	0.121U ng/Kg
SL-536-SA7-SB-3.0-4.0(RES)	1,2,3,4,7,8,9-HPCDF	0.194 ng/Kg	0.194U ng/Kg
SL-536-SA7-SB-3.0-4.0(RES)	1,2,3,4,7,8-HXCDF	0.0916 ng/Kg	0.0916U ng/Kg
SL-536-SA7-SB-3.0-4.0(RES)	1,2,3,6,7,8-HXCDF	0.157 ng/Kg	0.157U ng/Kg

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3 Subarea 7

Method Blank Outlier Report

Lab Reporting Batch ID: PH030 **Laboratory: LL**

EDD Filename: PrepPH030 **eQAPP Name: CDM_SSFL_130621_Lan**

Method: **1613B**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-536-SA7-SB-3.0-4.0(RES)	1,2,3,7,8,9-HXCDF	0.0426 ng/Kg	0.0426U ng/Kg
SL-536-SA7-SB-3.0-4.0(RES)	1,2,3,7,8-PECDF	0.0801 ng/Kg	0.0801U ng/Kg
SL-536-SA7-SB-3.0-4.0(RES)	2,3,4,7,8-PECDF	0.0632 ng/Kg	0.0632U ng/Kg
SL-836-SA7-SB-3.0-4.0(RES)	1,2,3,7,8,9-HXCDF	0.187 ng/Kg	0.187U ng/Kg
SL-836-SA7-SB-3.0-4.0(RES)	1,2,3,7,8-PECDF	0.260 ng/Kg	0.260U ng/Kg
SL-836-SA7-SB-3.0-4.0(RES)	2,3,7,8-TCDD	0.0709 ng/Kg	0.0709U ng/Kg

Method: **6010C**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P10737AB221907	4/21/2013 7:07:00 PM	MAGNESIUM PHOSPHORUS TIN	1.82 mg/Kg 10.9 mg/Kg 1.40 mg/Kg	SL-534-SA7-SB-0.0-0.5 SL-535-SA7-SB-0.0-0.5 SL-535-SA7-SB-4.0-5.0 SL-535-SA7-SB-9.0-10.0 SL-536-SA7-SB-3.0-4.0 SL-836-SA7-SB-3.0-4.0

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-534-SA7-SB-0.0-0.5(RES/TOT)	TIN	2.76 mg/Kg	2.76U mg/Kg
SL-535-SA7-SB-0.0-0.5(RES/TOT)	TIN	2.69 mg/Kg	2.69U mg/Kg
SL-535-SA7-SB-4.0-5.0(RES/TOT)	TIN	2.73 mg/Kg	2.73U mg/Kg
SL-535-SA7-SB-9.0-10.0(RES/TOT)	TIN	2.86 mg/Kg	2.86U mg/Kg
SL-536-SA7-SB-3.0-4.0(RES/TOT)	TIN	2.92 mg/Kg	2.92U mg/Kg
SL-836-SA7-SB-3.0-4.0(RES/TOT)	TIN	2.71 mg/Kg	2.71U mg/Kg

Field Blank Outlier Report

Lab Reporting Batch ID: PH030 **Laboratory: LL**

EDD Filename: PrepPH030 **eQAPP Name: CDM_SSFL_130621_Lan**

Method: **6010C**
Matrix: **SO**

Field Blank Sample ID	Collected Date	Analyte	Result	Associated Samples
FB-041113(REA2)	4/11/2013 3:00:00 PM	COPPER MOLYBDENUM	0.0036 mg/L 0.0036 mg/L	SL-534-SA7-SB-0.0-0.5 SL-535-SA7-SB-0.0-0.5 SL-535-SA7-SB-4.0-5.0 SL-535-SA7-SB-9.0-10.0 SL-536-SA7-SB-3.0-4.0 SL-836-SA7-SB-3.0-4.0

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-534-SA7-SB-0.0-0.5(RES/TOT)	MOLYBDENUM	0.335 mg/Kg	0.335U mg/Kg
SL-535-SA7-SB-0.0-0.5(RES/TOT)	MOLYBDENUM	0.281 mg/Kg	0.281U mg/Kg
SL-535-SA7-SB-4.0-5.0(RES/TOT)	MOLYBDENUM	0.331 mg/Kg	0.331U mg/Kg
SL-535-SA7-SB-9.0-10.0(RES/TOT)	MOLYBDENUM	0.486 mg/Kg	0.486U mg/Kg
SL-536-SA7-SB-3.0-4.0(RES/TOT)	MOLYBDENUM	1.23 mg/Kg	1.23U mg/Kg
SL-836-SA7-SB-3.0-4.0(RES/TOT)	MOLYBDENUM	0.271 mg/Kg	0.271U mg/Kg

Method: **8270D SIM**
Matrix: **SO**

Field Blank Sample ID	Collected Date	Analyte	Result	Associated Samples
FB-041113(RES)	4/11/2013 3:00:00 PM	1-METHYLNAPHTHALENE 2-METHYLNAPHTHALENE BIS(2-ETHYLHEXYL)PHTHALATE Diethylphthalate Di-n-butylphthalate NAPHTHALENE	0.019 ug/L 0.024 ug/L 0.082 ug/L 0.18 ug/L 0.17 ug/L 0.17 ug/L	SL-534-SA7-SB-0.0-0.5 SL-535-SA7-SB-0.0-0.5 SL-535-SA7-SB-4.0-5.0 SL-535-SA7-SB-9.0-10.0 SL-536-SA7-SB-3.0-4.0 SL-836-SA7-SB-3.0-4.0

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-534-SA7-SB-0.0-0.5(RES)	NAPHTHALENE	0.83 ug/Kg	1.7U ug/Kg

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: PH030 **Laboratory: LL**

EDD Filename: PH030_v1. **eQAPP Name: CDM_SSFL_130621_Lan**

Method: 6010C
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-536-SA7-SB-3.0-4.0MS (TOT) SL-536-SA7-SB-3.0-4.0MSD (TOT) (SL-534-SA7-SB-0.0-0.5 SL -535-SA7-SB-0.0-0.5 SL -535-SA7-SB-4.0-5.0 SL -535-SA7-SB-9.0-10.0 SL -536-SA7-SB-3.0-4.0 SL -836-SA7-SB-3.0-4.0)	ALUMINUM IRON MAGNESIUM PHOSPHORUS POTASSIUM TITANIUM	1359 1525 277 - 129 243	1600 1576 267 132 - 230	75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00 75.00-125.00	- - - - - -	ALUMINUM IRON MAGNESIUM PHOSPHORUS POTASSIUM TITANIUM	J (all detects) Al, Fe, Mg, Ti, No Qual, >4x
SL-536-SA7-SB-3.0-4.0MS (TOT) SL-536-SA7-SB-3.0-4.0MSD (TOT) (SL-534-SA7-SB-0.0-0.5 SL -535-SA7-SB-0.0-0.5 SL -535-SA7-SB-4.0-5.0 SL -535-SA7-SB-9.0-10.0 SL -536-SA7-SB-3.0-4.0 SL -836-SA7-SB-3.0-4.0)	ANTIMONY CALCIUM	70 67	73 -	75.00-125.00 75.00-125.00	- -	ANTIMONY CALCIUM	J(all detects) UJ(all non-detects) Ca, No Qual, >4x

Method: 8270D SIM
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-536-SA7-SB-3.0-4.0MSD (SL-536-SA7-SB-3.0-4.0)	PYRENE	-	-	26.00-143.00	49 (30.00)	PYRENE	J(all detects)

Method: 8015M
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-536-SA7-SB-3.0-4.0MS SL-536-SA7-SB-3.0-4.0MSD (SL-536-SA7-SB-3.0-4.0)	EFH (C15-C20) EFH (C21-C30) EFH (C30-C40)	152 125 198	217 235 401	49.00-123.00 49.00-123.00 49.00-123.00	35 (20.00) 33 (20.00) 35 (20.00)	EFH (C15-C20) EFH (C21-C30) EFH (C30-C40)	J(all detects)

Method: 1613B
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-536-SA7-SB-3.0-4.0MS SL-536-SA7-SB-3.0-4.0MSD (SL-536-SA7-SB-3.0-4.0)	1,2,3,4,6,7,8-HPCDD OCDD	- 266	- -	40.00-135.00 40.00-135.00	24 (20.00) 58 (20.00)	1,2,3,4,6,7,8-HPCDD OCDD	J(all detects)

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3 Subarea 7

Lab Duplicate Outlier Report

Lab Reporting Batch ID: PH030 **Laboratory: LL**

EDD Filename: PH030_v1. **eQAPP Name: CDM_SSFL_130621_Lan**

Method: 6010C
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-536-SA7-SB-3.0-4.0DUP (TOT) (SL-534-SA7-SB-0.0-0.5 SL -535-SA7-SB-0.0-0.5 SL -535-SA7-SB-4.0-5.0 SL -535-SA7-SB-9.0-10.0 SL -536-SA7-SB-3.0-4.0 SL -836-SA7-SB-3.0-4.0)	ARSENIC	32	20.00	No Qual, OK by Difference
	MOLYBDENUM	93	20.00	
	Zirconium	57	20.00	

Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: PH030 **Laboratory: LL**

EDD Filename: PH030_v1. **eQAPP Name: CDM_SSFL_130621_Lan**

***Method:* 8315A**
***Matrix:* AQ**

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P31054AY241745A (EB-041213)	FORMALDEHYDE	-	-	69.00-130.00	21 (20.00)	FORMALDEHYDE	J (all detects) UJ (all non-detects)

Field Duplicate RPD Report

Lab Reporting Batch ID: PH030 **Laboratory: LL**

EDD Filename: PrepPH030 **eQAPP Name: CDM_SSFL_130621_Lan**

Method: 160.3M
Matrix: SO

Analyte	Concentration (%) SL-536-SA7-SB-3.0-4.0	Concentration (%) SL-836-SA7-SB-3.0-4.0	Sample RPD	eQAPP RPD	Flag
MOISTURE	2.6	2.8	7		No Qualifiers Applied

Method: 1613B
Matrix: SO

Analyte	Concentration (ng/Kg) SL-536-SA7-SB-3.0-4.0	Concentration (ng/Kg) SL-836-SA7-SB-3.0-4.0	Sample RPD	eQAPP RPD	Flag
1,2,3,7,8-PECDD	0.238	0.380	46	50.00	No Qualifiers Applied
1,2,3,4,6,7,8-HPCDD	18.2	38.9	73	50.00	J(all detects) UJ(all non-detects)
1,2,3,4,6,7,8-HPCDF	2.14	5.29	85	50.00	
1,2,3,4,7,8,9-HPCDF	0.194	0.529	93	50.00	
1,2,3,4,7,8-HxCDD	0.287	0.724	86	50.00	
1,2,3,4,7,8-HXCDF	0.0916	0.302	107	50.00	
1,2,3,6,7,8-HXCDD	0.778	1.87	82	50.00	
1,2,3,6,7,8-HXCDF	0.157	0.396	86	50.00	
1,2,3,7,8,9-HXCDD	0.575	1.41	84	50.00	
1,2,3,7,8,9-HXCDF	0.0426	0.187	126	50.00	
1,2,3,7,8-PECDF	0.0801	0.260	106	50.00	
2,3,4,6,7,8-HXCDF	0.189	0.439	80	50.00	
2,3,4,7,8-PECDF	0.0632	0.231	114	50.00	
2,3,7,8-TCDD	1.00 U	0.0709	200	50.00	
2,3,7,8-TCDF	1.00 U	0.0308	200	50.00	
OCDD	150	358	82	50.00	
OCDF	3.87	9.39	83	50.00	

Method: 6010C
Matrix: SO

Analyte	Concentration (mg/Kg) SL-536-SA7-SB-3.0-4.0 (TOT)	Concentration (mg/Kg) SL-836-SA7-SB-3.0-4.0 (TOT)	Sample RPD	eQAPP RPD	Flag
ALUMINUM	10800	10800	0	50.00	No Qualifiers Applied
ANTIMONY	1.58	1.47	7	50.00	
ARSENIC	2.06	2.38	14	50.00	
BARIUM	72.1	66.7	8	50.00	
BERYLLIUM	0.482	0.501	4	50.00	
BORON	3.20	2.90	10	50.00	
CADMIUM	0.420	0.453	8	50.00	
CALCIUM	3140	2540	21	50.00	
CHROMIUM	18.5	14.0	28	50.00	
COBALT	5.11	4.93	4	50.00	
COPPER	5.13	4.57	12	50.00	
IRON	19000	19600	3	50.00	
LEAD	5.13	5.13	0	50.00	
LITHIUM	23.5	23.8	1	50.00	
MAGNESIUM	4080	3870	5	50.00	
MANGANESE	283	276	3	50.00	
NICKEL	8.67	7.16	19	50.00	
PHOSPHORUS	367	344	6	50.00	
POTASSIUM	2760	2710	2	50.00	
SODIUM	61.3	59.4	3	50.00	
TIN	2.92	2.71	7	50.00	
TITANIUM	1060	979	8	50.00	
VANADIUM	28.8	26.8	7	50.00	
ZINC	55.1	54.9	0	50.00	

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3 Subarea 7

Field Duplicate RPD Report

Lab Reporting Batch ID: PH030 **Laboratory: LL**

EDD Filename: PrepPH030 **eQAPP Name: CDM_SSFL_130621_Lan**

Method: 6010C
Matrix: SO

MOLYBDENUM	1.23	0.271	128	50.00	J(all detects)
Zirconium	1.11	4.95 U	200	50.00	UJ(all non-detects)

Method: 6020A
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-536-SA7-SB-3.0-4.0 (TOT)	SL-836-SA7-SB-3.0-4.0 (TOT)			
STRONTIUM	12.0	10.9	10	50.00	No Qualifiers Applied
THALLIUM	0.232	0.248	7	50.00	
SILVER	0.0307	0.198 U	200	50.00	J(all detects) UJ(all non-detects)

Method: 8015M
Matrix: SO

Analyte	Concentration (mg/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-536-SA7-SB-3.0-4.0	SL-836-SA7-SB-3.0-4.0			
EFH (C21-C30)	6.7	5.1 U	200	50.00	J(all detects)
EFH (C30-C40)	14	10 U	200	50.00	UJ(all non-detects)

Method: 8270D SIM
Matrix: SO

Analyte	Concentration (ug/Kg)		Sample RPD	eQAPP RPD	Flag
	SL-536-SA7-SB-3.0-4.0	SL-836-SA7-SB-3.0-4.0			
BENZO(A)ANTHRACENE	0.98	0.91	7	50.00	No Qualifiers Applied
BENZO(A)PYRENE	1.2	1.5	22	50.00	
BENZO(B)FLUORANTHENE	2.1	3.5	50	50.00	
BENZO(G,H,I)PERYLENE	1.1	1.7	43	50.00	
BENZO(K)FLUORANTHENE	0.89	1.0	12	50.00	
CHRYSENE	1.8	2.6	36	50.00	
FLUORANTHENE	2.4	3.5	37	50.00	
INDENO(1,2,3-CD)PYRENE	0.91	1.3	35	50.00	
PHENANTHRENE	1.2	2.0	50	50.00	
PYRENE	2.6	3.8	37	50.00	

Method: 9045M
Matrix: SO

Analyte	Concentration (pH unit)		Sample RPD	eQAPP RPD	Flag
	SL-536-SA7-SB-3.0-4.0	SL-836-SA7-SB-3.0-4.0			
PH	7.71	7.92	3	50.00	No Qualifiers Applied

Reporting Limit Outliers

Lab Reporting Batch ID: PH030 **Laboratory: LL**

EDD Filename: PH030_v1. **eQAPP Name: CDM_SSFL_130621_Lan**

Method: **1613B**

Matrix: **SO**

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-534-SA7-SB-0.0-0.5	1,2,3,4,6,7,8-HPCDF	JB	2.74	5.15	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JB	0.289	5.15	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JB	0.336	5.15	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JB	0.253	5.15	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JB	0.701	5.15	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.204	5.15	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	J	0.976	5.15	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JBQ	0.166	5.15	PQL	ng/Kg	J (all detects)
	1,2,3,7,8-PECDD	J	0.344	5.15	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JBQ	0.118	5.15	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JBQ	0.349	5.15	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.156	5.15	PQL	ng/Kg	
	2,3,7,8-TCDD	JBQ	0.0346	1.03	PQL	ng/Kg	
	2,3,7,8-TCDF	JQ	0.0508	1.03	PQL	ng/Kg	
	OCDF	JB	5.52	10.3	PQL	ng/Kg	
SL-535-SA7-SB-0.0-0.5	1,2,3,4,6,7,8-HPCDF	JB	3.82	5.10	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JB	0.319	5.10	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JB	0.853	5.10	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JB	0.329	5.10	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JB	1.87	5.10	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.323	5.10	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	J	1.51	5.10	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JBQ	0.215	5.10	PQL	ng/Kg	J (all detects)
	1,2,3,7,8-PECDD	JQ	0.576	5.10	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JB	0.421	5.10	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JB	0.359	5.10	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	0.380	5.10	PQL	ng/Kg	
	2,3,7,8-TCDD	JB	0.166	1.02	PQL	ng/Kg	
	2,3,7,8-TCDF	JQ	0.197	1.02	PQL	ng/Kg	
	OCDF	JB	7.05	10.2	PQL	ng/Kg	
SL-535-SA7-SB-4.0-5.0	1,2,3,4,6,7,8-HPCDD	JB	1.55	5.19	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JB	0.220	5.19	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.0491	5.19	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JB	0.0713	5.19	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JB	0.0686	5.19	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JB	0.110	5.19	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	0.0431	5.19	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	J	0.108	5.19	PQL	ng/Kg	J (all detects)
	1,2,3,7,8,9-HXCDF	JBQ	0.110	5.19	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JQ	0.0750	5.19	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JBQ	0.124	5.19	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JB	0.0628	5.19	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	0.124	5.19	PQL	ng/Kg	
	2,3,7,8-TCDF	JQ	0.0363	1.04	PQL	ng/Kg	
	OCDF	JB	0.470	10.4	PQL	ng/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: PH030 **Laboratory: LL**

EDD Filename: PH030_v1. **eQAPP Name: CDM_SSFL_130621_Lan**

Method: **1613B**

Matrix: **SO**

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-535-SA7-SB-9.0-10.0	1,2,3,4,6,7,8-HPCDD	JB	0.256	5.18	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JBQ	0.0660	5.18	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.0401	5.18	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JBQ	0.0280	5.18	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JBQ	0.0419	5.18	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JBQ	0.0413	5.18	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.0241	5.18	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JBQ	0.0462	5.18	PQL	ng/Kg	J (all detects)
	1,2,3,7,8-PECDD	JQ	0.0562	5.18	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JBQ	0.0848	5.18	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JBQ	0.0231	5.18	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	0.0548	5.18	PQL	ng/Kg	
	2,3,7,8-TCDD	JBQ	0.0291	1.04	PQL	ng/Kg	
	OCDD	JB	1.74	10.4	PQL	ng/Kg	
	OCDF	JBQ	0.121	10.4	PQL	ng/Kg	
SL-536-SA7-SB-3.0-4.0	1,2,3,4,6,7,8-HPCDF	JB	2.14	5.02	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.194	5.02	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JB	0.287	5.02	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JB	0.0916	5.02	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JB	0.778	5.02	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	0.157	5.02	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	J	0.575	5.02	PQL	ng/Kg	J (all detects)
	1,2,3,7,8,9-HXCDF	JBQ	0.0426	5.02	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JQ	0.238	5.02	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JB	0.0801	5.02	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JBQ	0.189	5.02	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.0632	5.02	PQL	ng/Kg	
	OCDF	JB	3.87	10.0	PQL	ng/Kg	
SL-836-SA7-SB-3.0-4.0	1,2,3,4,7,8,9-HPCDF	JB	0.529	5.13	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JB	0.724	5.13	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JB	0.302	5.13	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JB	1.87	5.13	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	0.396	5.13	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	J	1.41	5.13	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JB	0.187	5.13	PQL	ng/Kg	J (all detects)
	1,2,3,7,8-PECDD	J	0.380	5.13	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JBQ	0.260	5.13	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JB	0.439	5.13	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	0.231	5.13	PQL	ng/Kg	
	2,3,7,8-TCDD	JBQ	0.0709	1.03	PQL	ng/Kg	
	2,3,7,8-TCDF	JQ	0.0308	1.03	PQL	ng/Kg	
	OCDF	JB	9.39	10.3	PQL	ng/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: PH030 **Laboratory: LL**

EDD Filename: PH030_v1. **eQAPP Name: CDM_SSFL_130621_Lan**

Method: **6010C**

Matrix: **SO**

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-534-SA7-SB-0.0-0.5	ANTIMONY	J	1.96	4.15	PQL	mg/Kg	J (all detects)
	ARSENIC	J	2.83	4.15	PQL	mg/Kg	
	BERYLLIUM	J	0.592	1.04	PQL	mg/Kg	
	BORON	J	4.80	10.4	PQL	mg/Kg	
	CADMIUM	J	0.533	1.04	PQL	mg/Kg	
	MOLYBDENUM	J	0.335	2.08	PQL	mg/Kg	
	SODIUM	J	60.8	104	PQL	mg/Kg	
	TIN	J	2.76	10.4	PQL	mg/Kg	
	Zirconium	J	1.13	5.19	PQL	mg/Kg	
SL-535-SA7-SB-0.0-0.5	ANTIMONY	J	1.78	3.99	PQL	mg/Kg	J (all detects)
	ARSENIC	J	2.11	3.99	PQL	mg/Kg	
	BERYLLIUM	J	0.521	0.998	PQL	mg/Kg	
	BORON	J	3.82	9.98	PQL	mg/Kg	
	CADMIUM	J	0.541	0.998	PQL	mg/Kg	
	MOLYBDENUM	J	0.281	2.00	PQL	mg/Kg	
	SODIUM	J	61.6	99.8	PQL	mg/Kg	
	TIN	J	2.69	9.98	PQL	mg/Kg	
SL-535-SA7-SB-4.0-5.0	ANTIMONY	J	2.47	4.05	PQL	mg/Kg	J (all detects)
	ARSENIC	J	2.17	4.05	PQL	mg/Kg	
	BERYLLIUM	J	0.596	1.01	PQL	mg/Kg	
	BORON	J	2.92	10.1	PQL	mg/Kg	
	CADMIUM	J	0.603	1.01	PQL	mg/Kg	
	MOLYBDENUM	J	0.331	2.02	PQL	mg/Kg	
	SODIUM	J	70.7	101	PQL	mg/Kg	
	TIN	J	2.73	10.1	PQL	mg/Kg	
	Zirconium	J	1.05	5.06	PQL	mg/Kg	
SL-535-SA7-SB-9.0-10.0	ANTIMONY	J	2.10	4.06	PQL	mg/Kg	J (all detects)
	ARSENIC	J	2.20	4.06	PQL	mg/Kg	
	BERYLLIUM	J	0.546	1.02	PQL	mg/Kg	
	BORON	J	2.37	10.2	PQL	mg/Kg	
	CADMIUM	J	0.511	1.02	PQL	mg/Kg	
	MOLYBDENUM	J	0.486	2.03	PQL	mg/Kg	
	SODIUM	J	71.3	102	PQL	mg/Kg	
	TIN	J	2.86	10.2	PQL	mg/Kg	
SL-536-SA7-SB-3.0-4.0	ANTIMONY	J	1.58	3.95	PQL	mg/Kg	J (all detects)
	ARSENIC	J	2.06	3.95	PQL	mg/Kg	
	BERYLLIUM	J	0.482	0.987	PQL	mg/Kg	
	BORON	J	3.20	9.87	PQL	mg/Kg	
	CADMIUM	J	0.420	0.987	PQL	mg/Kg	
	MOLYBDENUM	J	1.23	1.97	PQL	mg/Kg	
	SODIUM	J	61.3	98.7	PQL	mg/Kg	
	TIN	J	2.92	9.87	PQL	mg/Kg	
	Zirconium	J	1.11	4.94	PQL	mg/Kg	
SL-836-SA7-SB-3.0-4.0	ANTIMONY	J	1.47	3.96	PQL	mg/Kg	J (all detects)
	ARSENIC	J	2.38	3.96	PQL	mg/Kg	
	BERYLLIUM	J	0.501	0.989	PQL	mg/Kg	
	BORON	J	2.90	9.89	PQL	mg/Kg	
	CADMIUM	J	0.453	0.989	PQL	mg/Kg	
	MOLYBDENUM	J	0.271	1.98	PQL	mg/Kg	
	SODIUM	J	59.4	98.9	PQL	mg/Kg	
	TIN	J	2.71	9.89	PQL	mg/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: PH030 **Laboratory: LL**

EDD Filename: PH030_v1. **eQAPP Name: CDM_SSFL_130621_Lan**

Method: 6020A
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-534-SA7-SB-0.0-0.5	SILVER	J	0.0407	0.208	PQL	mg/Kg	J (all detects)
SL-535-SA7-SB-4.0-5.0	SELENIUM	J	0.166	0.405	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0452	0.202	PQL	mg/Kg	
SL-535-SA7-SB-9.0-10.0	SELENIUM	J	0.119	0.406	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0260	0.203	PQL	mg/Kg	
SL-536-SA7-SB-3.0-4.0	SILVER	J	0.0307	0.197	PQL	mg/Kg	J (all detects)

Method: 7471B
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-534-SA7-SB-0.0-0.5	MERCURY	J	0.0188	0.0207	PQL	mg/Kg	J (all detects)
SL-535-SA7-SB-0.0-0.5	MERCURY	J	0.0151	0.0202	PQL	mg/Kg	J (all detects)
SL-535-SA7-SB-4.0-5.0	MERCURY	J	0.0108	0.0201	PQL	mg/Kg	J (all detects)
SL-535-SA7-SB-9.0-10.0	MERCURY	J	0.0149	0.0208	PQL	mg/Kg	J (all detects)

Method: 8015M
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-534-SA7-SB-0.0-0.5	EFH (C15-C20)	J	3.6	5.2	PQL	mg/Kg	J (all detects)
SL-535-SA7-SB-0.0-0.5	EFH (C15-C20)	J	3.5	5.1	PQL	mg/Kg	J (all detects)

Method: 8270D SIM
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-534-SA7-SB-0.0-0.5	BENZO(A)PYRENE	J	0.91	1.7	PQL	ug/Kg	J (all detects)
	BENZO(B)FLUORANTHENE	J	1.4	1.7	PQL	ug/Kg	
	BIS(2-ETHYLHEXYL)PHTHALATE	J	9.3	19	PQL	ug/Kg	
	CHRYSENE	J	1.5	1.7	PQL	ug/Kg	
	FLUORENE	J	1.4	1.7	PQL	ug/Kg	
	NAPHTHALENE	J	0.83	1.7	PQL	ug/Kg	
	PHENANTHRENE	J	1.1	1.7	PQL	ug/Kg	
SL-535-SA7-SB-0.0-0.5	BENZO(B)FLUORANTHENE	J	1.2	1.7	PQL	ug/Kg	J (all detects)
	BIS(2-ETHYLHEXYL)PHTHALATE	J	6.3	18	PQL	ug/Kg	
	CHRYSENE	J	1.1	1.7	PQL	ug/Kg	
	FLUORANTHENE	J	1.1	1.7	PQL	ug/Kg	
	FLUORENE	J	0.79	1.7	PQL	ug/Kg	
	PHENANTHRENE	J	0.76	1.7	PQL	ug/Kg	
	PYRENE	J	1.2	1.7	PQL	ug/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: PH030 **Laboratory: LL**

EDD Filename: PH030_v1. **eQAPP Name: CDM_SSFL_130621_Lan**

Method: **8270D SIM**

Matrix: **SO**

SampleID	*Analyte*	*Lab Qual*	*Result*	*Reporting Limit*	*RL Type*	*Units*	*Flag*
SL-536-SA7-SB-3.0-4.0	BENZO(A)ANTHRACENE	J	0.98	1.7	PQL	ug/Kg	J (all detects)
	BENZO(A)PYRENE	J	1.2	1.7	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	1.1	1.7	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	0.89	1.7	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	0.91	1.7	PQL	ug/Kg	
	PHENANTHRENE	J	1.2	1.7	PQL	ug/Kg	
SL-836-SA7-SB-3.0-4.0	BENZO(A)ANTHRACENE	J	0.91	1.7	PQL	ug/Kg	J (all detects)
	BENZO(A)PYRENE	J	1.5	1.7	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	1.0	1.7	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	1.3	1.7	PQL	ug/Kg	

LDC #: 29836D4

SDG #: PH030

Laboratory: Eurofins Lancaster Laboratories

VALIDATION COMPLETENESS WORKSHEET

ADR

Date: 6/11/13

Page: 1 of 1

Reviewer: CR

2nd Reviewer: [illegible]

METHOD: Metals (EPA SW 846 Method 6010C/6020A/7000)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	—	Sampling dates: 4/12/13
II.	ICP/MS Tune	—	
III.	Calibration	—	
IV.	Blanks	A	
V.	ICP Interference Check Sample (ICS) Analysis	—	
VI.	Matrix Spike Analysis	SW	MS/D
VII.	Duplicate Sample Analysis	SW	DUP
VIII.	Laboratory Control Samples (LCS)	A	LCS
IX.	Internal Standard (ICP-MS)	N	
X.	Furnace Atomic Absorption QC	N	
XI.	ICP Serial Dilution	A	
XII.	Sample Result Verification	N	
XIII.	Overall Assessment of Data	N	
XIV.	Field Duplicates	—	(1,2)
XV	Field Blanks	SW	EB=EB-041113 FB=FB-041113 (PH029)

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples: Soil

1 44	SL-536-SA7-SB-3.0-4.0	11		21		31	
2 46	SL-836-SA7-SB-3.0-4.0	12		22		32	
3 49	SL-535-SA7-SB-0.0-0.5	13		23		33	
4 50	SL-535-SA7-SB-4.0-5.0	14		24		34	
5 51	SL-535-SA7-SB-9.0-10.0	15		25		35	
6 52	SL-534-SA7-SB-0.0-0.5	16		26		36	
7	SL-536-SA7-SB-3.0-4.0MS	17		27		37	
8	SL-536-SA7-SB-3.0-4.0MSD	18		28		38	
9	SL-536-SA7-SB-3.0-4.0DUP	19		29		39	
10		20		30		40	

Notes:

LDC #: 29836D4

VALIDATION FINDINGS WORKSHEET
Field Blanks

Page: 1 of 1
Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: Trace Metals (EPA SW846 6010B/7000)

Blank units: mg/L **Associated sample units:** mg/Kg Reason: F
Sampling date: 4/11/13 Soil factor applied 100x
Field blank type: (circle one) Field Blank / Rinsate / Other: Associated Samples: All

Analyte	Blank ID	Blank ID	Sample Identification										
	EB-041113	FB-041113	Action Limit	1	2	3	4	5	6				
Ca	0.131		65.5										
Cu	0.0035	0.0036	1.8										
Mn	0.0012		0.6										
Mo	0.0143	0.0036	7.15	1.2	0.27	0.28	0.33	0.49	0.34				
Sn	0.0024		1.2										
Zn	0.0041		2.05										

CIRCLED RESULTS WERE NOT QUALIFIED. ALL RESULTS NOT CIRCLED WERE QUALIFIED BY THE FOLLOWING STATEMENT:
Samples with analyte concentrations within five times the associated field blank concentration are listed above, these sample results were qualified as not detected, "U".

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[redacted]

QUALITY ASSURANCE SUMMARY
FORM 5A(MS/MSD)
MATRIX SPIKE/MATRIX SPIKE DUPLICATE
SDG No.: PH030
Matrix: SOIL Level (low/med): LOW

Background Lab Sample ID: 7022144BKG Matrix Spike Lab Sample ID: 7022145MS Matrix Spike Duplicate Lab Sample ID: 7022146MSD
Batch Id(s): P10737A, P10738A

Analyte	Mass	BKG Sample Result	C	MS Sample Result	C	MSD Sample Result	C	MS Spike Added	MSD Spike Added	Units	MS %R	Q	MSD %R	Q	RPD	Q	Control Limit %R	RPD	M
Aluminum		10546.2192		13159.1337		13622.6942		192.3077	192.3077	MG/KG	1359		1600		3			20	P
Antimony		1.5356	B	35.2644		36.5663		48.0769	48.0769	MG/KG	70	N	73	N	4		75 - 125	20	P
Arsenic		2.0106	B	17.9558		17.6019		14.4231	14.4231	MG/KG	111		108		2		75 - 125	20	P
Barium		70.1798		271.3375		262.0337		192.3077	192.3077	MG/KG	105		100		3		75 - 125	20	P
Beryllium		0.4692	B	5.2500		5.2077		4.8077	4.8077	MG/KG	99		99		1		75 - 125	20	P
Boron		3.1202	B	184.3971		184.8654		192.3077	192.3077	MG/KG	94		95		0		75 - 125	20	P
Cadmium		0.4087	B	5.4606		5.4125		4.8077	4.8077	MG/KG	105		104		1		75 - 125	20	P
Calcium		3056.5587		3314.8962		3449.5471		384.6154	384.6154	MG/KG	67		102		4			20	P
Chromium		18.0058		37.8240		40.7750		19.2308	19.2308	MG/KG	103		118		8		75 - 125	20	P
Cobalt		4.9817		53.4231		53.0135		48.0769	48.0769	MG/KG	101		100		1		75 - 125	20	P
Copper		5.0010		29.2673		29.2240		24.0385	24.0385	MG/KG	101		101		0		75 - 125	20	P
Iron		18474.9038		19941.4087		19990.1115		96.1538	96.1538	MG/KG	1525		1576		0			20	P
Lead		4.9971		20.2760		19.9981		14.4231	14.4231	MG/KG	106		104		1		75 - 125	20	P
Lithium		22.9298		122.6385		124.1067		96.1538	96.1538	MG/KG	104		105		1		75 - 125	20	P
Magnesium		3973.8683		4506.3923		4487.1394		192.3077	192.3077	MG/KG	277		267		0			20	P
Manganese		275.4942		327.1442		325.7135		48.0769	48.0769	MG/KG	107		104		0			20	P
Mercury		0.0098	U	0.1821		0.1805		0.1622	0.1627	MG/KG	112		111		1		65 - 135	20	CV
Molybdenum		1.1942	B	186.7442		186.1288		192.3077	192.3077	MG/KG	96		96		0		75 - 125	20	P
Nickel		8.4442		56.6904		55.9971		48.0769	48.0769	MG/KG	100		99		1		75 - 125	20	P
Phosphorus		357.4385		451.3115		484.3760		96.1538	96.1538	MG/KG	98		132	N	7		75 - 125	20	P
Potassium		2684.0654		3924.3365		3875.1462		961.5385	961.5385	MG/KG	129	N	124		1		75 - 125	20	P
Selenium	78	0.0962	U	2.2212		2.1404		1.9231	1.9231	MG/KG	116		111		4		75 - 125	20	MS
Silver	107	0.0299	B	9.6096		9.7115		9.6154	9.6154	MG/KG	100		101		1		75 - 125	20	MS
Sodium		59.6654	B	978.1212		996.4904		961.5385	961.5385	MG/KG	96		97		2		75 - 125	20	P
Strontium	88	11.6808		18.5269		19.6346		7.6923	7.6923	MG/KG	89		103		6		75 - 125	20	MS
Thallium	203	0.2260		0.6287		0.6010		0.3846	0.3846	MG/KG	105		98		5		75 - 125	20	MS
Tin		2.8481	B	356.0096		354.2596		384.6154	384.6154	MG/KG	92		91		0		75 - 125	20	P
Titanium		1032.2115		1265.7163		1253.0077		96.1538	96.1538	MG/KG	243		230		1			20	P
Vanadium		28.0740		76.2231		75.4404		48.0769	48.0769	MG/KG	100		99		1		75 - 125	20	P
Zinc		53.6769		107.5240		107.2125		48.0769	48.0769	MG/KG	112		111		0		75 - 125	20	P
Zirconium		1.0846	B	92.2577		91.6760		96.1538	96.1538	MG/KG	95		94		1		75 - 125	20	P

Note: Results shown are reported on an as-received basis.

METHODS:
P = ICP Atomic Emission Spectrometer CV = Cold Vapor
MS = ICP Mass Spectrometry AF = Cold Vapor Atomic Fluorescence

CONCENTRATION QUALIFIERS:
U= Below MDL, B= Below LOQ
FLAGS:
N = Matrix Spike OOS, * = Duplicate OOS

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Nonconformance

QUALITY ASSURANCE SUMMARY
FORM 6
DUPLICATES
SDG No.: PH030
Matrix: SOIL Level (low/med): LOW

Background Lab Sample ID: 7022144BKG
Duplicate Lab Sample ID: 7022147DUP
Batch ID(s): P10737A, P10738A
Concentration Units: MG/KG

Analyte	Mass	Control Limit	Samples (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum			10546.2192		10768.1529		2		P
Antimony			1.5356	B	1.4817	B	4		P
Arsenic			2.0106	B	2.7856	B	32	*	P
Barium			70.1798		68.6394		2		P
Beryllium			0.4692	B	0.4721	B	1		P
Boron			3.1202	B	2.9962	B	4		P
Cadmium			0.4087	B	0.4365	B	7		P
Calcium			3056.5587		2863.0308		7		P
Chromium			18.0058		17.8625		1		P
Cobalt			4.9817		4.8577		3		P
Copper		1.9	5.0010		5.1192		2		P
Iron			18474.9038		19017.1135		3		P
Lead		2.9	4.9971		5.3692		7		P
Lithium			22.9298		23.7375		3		P
Magnesium			3973.8683		3968.4760		0		P
Manganese			275.4942		269.1933		2		P
Mercury			0.0098	U	0.0099	U			CV
Molybdenum			1.1942	B	0.4337	B	93	*	P
Nickel		1.9	8.4442		8.4663		0		P
Phosphorus			357.4385		368.2885		3		P
Potassium			2684.0654		2749.3837		2		P
Selenium	78		0.0962	U	0.0962	U			MS
Silver	107		0.0299	B	0.0323	B	8		MS
Sodium			59.6654	B	60.9327	B	2		P
Strontium	88		11.6808		11.4212		2		MS
Thallium	203	0.2	0.2260		0.2196		3		MS
Tin			2.8481	B	2.6769	B	6		P
Titanium			1032.2115		1053.9375		2		P
Vanadium			28.0740		28.1779		0		P
Zinc			53.6769		54.2404		1		P
Zirconium			1.0846	B	1.9567	B	57	*	P

NOTE: An asterisk (*) in column "Q" indicates poor duplicate precision (RPD > 20% OR |(S) - (D)| > LOQ for values < 5x LOQ).
The data are considered to be valid because the laboratory control sample is within the control limits. See the Laboratory Control Sample.

Note: Results shown are reported on an as-received basis.

METHODS:
P = ICP Atomic Emission Spectrometer
MS = ICP Mass Spectrometry
CV = Cold Vapor
AF = Cold Vapor Atomic Fluorescence

CONCENTRATION QUALIFIERS:
U= Below MDL
B= Below LOQ

FLAGS:
* = Duplicate Out of Spec

Attachment I

Sample ID Cross Reference and Data Review Level

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
15-Apr-2013	TB-041513	7023135	TB	5030B	8015M	III
15-Apr-2013	SL-534-SA7-SB-5.5-6.5	7023136	N	3050B	6010C	III
15-Apr-2013	SL-534-SA7-SB-5.5-6.5	7023136	N	3050B	6020A	III
15-Apr-2013	SL-534-SA7-SB-5.5-6.5	7023136	N	3546	8015M	III
15-Apr-2013	SL-534-SA7-SB-5.5-6.5	7023136	N	3546	8082A	III
15-Apr-2013	SL-534-SA7-SB-5.5-6.5	7023136	N	3546	8270D SIM	III
15-Apr-2013	SL-534-SA7-SB-5.5-6.5	7023136	N	5035A	8015M	III
15-Apr-2013	SL-534-SA7-SB-5.5-6.5	7023136	N	METHOD	1613B	III
15-Apr-2013	SL-534-SA7-SB-5.5-6.5	7023136	N	METHOD	7471B	III
15-Apr-2013	SL-534-SA7-SB-5.5-6.5MSD	P023136M320549A	MSD	3546	8015M	III
15-Apr-2013	SL-534-SA7-SB-5.5-6.5MS	P023136R320529A	MS	3546	8015M	III
15-Apr-2013	SL-537-SA7-SB-0.0-0.5	7023137	N	3050B	6010C	III
15-Apr-2013	SL-537-SA7-SB-0.0-0.5	7023137	N	3050B	6020A	III
15-Apr-2013	SL-537-SA7-SB-0.0-0.5	7023137	N	3546	8015M	III
15-Apr-2013	SL-537-SA7-SB-0.0-0.5	7023137	N	3546	8082A	III
15-Apr-2013	SL-537-SA7-SB-0.0-0.5	7023137	N	3546	8270D SIM	III
15-Apr-2013	SL-537-SA7-SB-0.0-0.5	7023137	N	METHOD	1613B	III
15-Apr-2013	SL-537-SA7-SB-0.0-0.5	7023137	N	METHOD	7471B	III
15-Apr-2013	SL-537-SA7-SB-0.0-0.5MSD	P023137M240345A	MSD	3546	8082A	III
15-Apr-2013	SL-537-SA7-SB-0.0-0.5MS	P023137R240327A	MS	3546	8082A	III
15-Apr-2013	SL-538-SA7-SB-0.0-0.5	7023138	N	3050B	6010C	III
15-Apr-2013	SL-538-SA7-SB-0.0-0.5	7023138	N	3050B	6020A	III
15-Apr-2013	SL-538-SA7-SB-0.0-0.5	7023138	N	3546	8015M	III
15-Apr-2013	SL-538-SA7-SB-0.0-0.5	7023138	N	3546	8082A	III
15-Apr-2013	SL-538-SA7-SB-0.0-0.5	7023138	N	3546	8270D SIM	III
15-Apr-2013	SL-538-SA7-SB-0.0-0.5	7023138	N	METHOD	1613B	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
15-Apr-2013	SL-538-SA7-SB-0.0-0.5	7023138	N	METHOD	7471B	III
15-Apr-2013	SL-522-SA7-SB-0.0-0.5	7023139	N	3050B	6010C	III
15-Apr-2013	SL-522-SA7-SB-0.0-0.5	7023139	N	3050B	6020A	III
15-Apr-2013	SL-522-SA7-SB-0.0-0.5	7023139	N	3546	8015M	III
15-Apr-2013	SL-522-SA7-SB-0.0-0.5	7023139	N	3546	8081B	IV
15-Apr-2013	SL-522-SA7-SB-0.0-0.5	7023139	N	3546	8082A	III
15-Apr-2013	SL-522-SA7-SB-0.0-0.5	7023139	N	3546	8270D SIM	III
15-Apr-2013	SL-522-SA7-SB-0.0-0.5	7023139	N	METHOD	1613B	III
15-Apr-2013	SL-522-SA7-SB-0.0-0.5	7023139	N	METHOD	7471B	III
15-Apr-2013	SL-522-SA7-SB-0.0-0.5MSD	P023139M240154A	MSD	3546	8081B	IV
15-Apr-2013	SL-522-SA7-SB-0.0-0.5MS	P023139R240142A	MS	3546	8081B	IV
15-Apr-2013	SL-521-SA7-SB-0.0-0.5	7023140	N	3050B	6010C	III
15-Apr-2013	SL-521-SA7-SB-0.0-0.5	7023140	N	3050B	6020A	III
15-Apr-2013	SL-521-SA7-SB-0.0-0.5	7023140	N	3546	8015M	III
15-Apr-2013	SL-521-SA7-SB-0.0-0.5	7023140	N	3546	8081B	IV
15-Apr-2013	SL-521-SA7-SB-0.0-0.5	7023140	N	3546	8082A	III
15-Apr-2013	SL-521-SA7-SB-0.0-0.5	7023140	N	3546	8270D SIM	III
15-Apr-2013	SL-521-SA7-SB-0.0-0.5	7023140	N	METHOD	1613B	III
15-Apr-2013	SL-521-SA7-SB-0.0-0.5	7023140	N	METHOD	7471B	III

III = EPA Level 3 Data Review
IV = EPA Level 4 Data Validation
N = Normal Sample
FD = Field Duplicate
TB = Trip Blank
FB = Field Blank
MS = Matrix Spike
MSD = Matrix Spike Duplicate

Attachment II

Overall Data Qualification Summary

Data Qualifier Summary

Lab Reporting Batch ID: PH031 **Laboratory: LL**

EDD Filename: PrepPH031 **eQAPP Name: CDM_SSFL_130621_Lan**

Method Category: **METALS**

Method: **6010C** ***Matrix:*** **SO**

Sample ID: **SL-521-SA7-SB-0.0-0.5** ***Collected:*** **4/15/2013 2:15:00** ***Analysis Type:*** **RES/TOT** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	1.52	J	0.490	MDL	3.92	PQL	mg/Kg	J	Z, Q
ARSENIC	3.85	J	0.323	MDL	3.92	PQL	mg/Kg	J	Z
BERYLLIUM	0.618	J	0.0656	MDL	0.979	PQL	mg/Kg	J	Z
BORON	2.86	J	0.813	MDL	9.79	PQL	mg/Kg	J	Z
CADMIUM	0.379	J	0.0323	MDL	0.979	PQL	mg/Kg	J	Z
MOLYBDENUM	0.491	J	0.166	MDL	1.96	PQL	mg/Kg	U	B, F, F
PHOSPHORUS	363		0.499	MDL	9.79	PQL	mg/Kg	J	Q
POTASSIUM	2990		13.2	MDL	97.9	PQL	mg/Kg	J	Q
SODIUM	64.5	J	16.4	MDL	97.9	PQL	mg/Kg	J	Z
TIN	2.81	J	0.215	MDL	9.79	PQL	mg/Kg	U	B

Sample ID: **SL-522-SA7-SB-0.0-0.5** ***Collected:*** **4/15/2013 1:30:00** ***Analysis Type:*** **RES/TOT** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	1.89	J	0.519	MDL	4.15	PQL	mg/Kg	J	Z, Q
ARSENIC	2.40	J	0.342	MDL	4.15	PQL	mg/Kg	J	Z
BERYLLIUM	0.537	J	0.0695	MDL	1.04	PQL	mg/Kg	J	Z
BORON	3.26	J	0.861	MDL	10.4	PQL	mg/Kg	J	Z
CADMIUM	0.468	J	0.0342	MDL	1.04	PQL	mg/Kg	J	Z
MOLYBDENUM	0.349	J	0.176	MDL	2.07	PQL	mg/Kg	U	B, F, F
PHOSPHORUS	406		0.529	MDL	10.4	PQL	mg/Kg	J	Q
POTASSIUM	2900		14.0	MDL	104	PQL	mg/Kg	J	Q
SODIUM	70.7	J	17.3	MDL	104	PQL	mg/Kg	J	Z
TIN	2.44	J	0.228	MDL	10.4	PQL	mg/Kg	U	B

Sample ID: **SL-534-SA7-SB-5.5-6.5** ***Collected:*** **4/15/2013 8:45:00** ***Analysis Type:*** **RES/TOT** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	1.87	J	0.504	MDL	4.03	PQL	mg/Kg	J	Z, Q
ARSENIC	2.46	J	0.333	MDL	4.03	PQL	mg/Kg	J	Z
BERYLLIUM	0.582	J	0.0675	MDL	1.01	PQL	mg/Kg	J	Z
BORON	1.47	J	0.837	MDL	10.1	PQL	mg/Kg	J	Z
CADMIUM	0.418	J	0.0333	MDL	1.01	PQL	mg/Kg	J	Z
MOLYBDENUM	0.441	J	0.171	MDL	2.02	PQL	mg/Kg	U	B, F, F
PHOSPHORUS	295		0.514	MDL	10.1	PQL	mg/Kg	J	Q

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3 Subarea 7

Data Qualifier Summary

Lab Reporting Batch ID: PH031 **Laboratory: LL**

EDD Filename: PrepPH031 **eQAPP Name: CDM_SSFL_130621_Lan**

Method Category: **METALS**

Method: **6010C** ***Matrix:*** **SO**

Sample ID: **SL-534-SA7-SB-5.5-6.5** ***Collected:*** **4/15/2013 8:45:00** ***Analysis Type:*** **RES/TOT** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
POTASSIUM	2570		13.6	MDL	101	PQL	mg/Kg	J	Q
SODIUM	67.8	J	16.8	MDL	101	PQL	mg/Kg	J	Z
TIN	2.63	J	0.222	MDL	10.1	PQL	mg/Kg	U	B

Sample ID: **SL-537-SA7-SB-0.0-0.5** ***Collected:*** **4/15/2013 9:50:00** ***Analysis Type:*** **RES/TOT** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	1.73	J	0.507	MDL	4.05	PQL	mg/Kg	J	Z, Q
ARSENIC	2.50	J	0.334	MDL	4.05	PQL	mg/Kg	J	Z
BERYLLIUM	0.477	J	0.0679	MDL	1.01	PQL	mg/Kg	J	Z
BORON	2.96	J	0.841	MDL	10.1	PQL	mg/Kg	J	Z
CADMIUM	0.511	J	0.0334	MDL	1.01	PQL	mg/Kg	J	Z
PHOSPHORUS	466		0.517	MDL	10.1	PQL	mg/Kg	J	Q
POTASSIUM	3900		13.7	MDL	101	PQL	mg/Kg	J	Q
SODIUM	62.0	J	16.9	MDL	101	PQL	mg/Kg	J	Z
TIN	2.78	J	0.223	MDL	10.1	PQL	mg/Kg	U	B
Zirconium	0.916	J	0.841	MDL	5.07	PQL	mg/Kg	J	Z

Sample ID: **SL-538-SA7-SB-0.0-0.5** ***Collected:*** **4/15/2013 10:50:00** ***Analysis Type:*** **RES/TOT** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	1.49	J	0.503	MDL	4.02	PQL	mg/Kg	J	Z, Q
ARSENIC	1.83	J	0.332	MDL	4.02	PQL	mg/Kg	J	Z
BERYLLIUM	0.492	J	0.0673	MDL	1.01	PQL	mg/Kg	J	Z
BORON	3.01	J	0.834	MDL	10.1	PQL	mg/Kg	J	Z
CADMIUM	0.445	J	0.0332	MDL	1.01	PQL	mg/Kg	J	Z
MOLYBDENUM	0.266	J	0.171	MDL	2.01	PQL	mg/Kg	U	B, F, F
PHOSPHORUS	409		0.513	MDL	10.1	PQL	mg/Kg	J	Q
POTASSIUM	3600		13.6	MDL	101	PQL	mg/Kg	J	Q
SODIUM	60.1	J	16.8	MDL	101	PQL	mg/Kg	J	Z
TIN	2.62	J	0.221	MDL	10.1	PQL	mg/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3 Subarea 7

Data Qualifier Summary

Lab Reporting Batch ID: PH031 **Laboratory: LL**

EDD Filename: PrepPH031 **eQAPP Name: CDM_SSFL_130621_Lan**

Method Category: **METALS**

Method: **6020A** ***Matrix:*** **SO**

Sample ID: **SL-521-SA7-SB-0.0-0.5** ***Collected:*** **4/15/2013 2:15:00** ***Analysis Type:*** **REA/TOT** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.173	J	0.0979	MDL	0.392	PQL	mg/Kg	J	Z

Sample ID: **SL-521-SA7-SB-0.0-0.5** ***Collected:*** **4/15/2013 2:15:00** ***Analysis Type:*** **RES/TOT** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SILVER	0.0272	J	0.0196	MDL	0.196	PQL	mg/Kg	J	Z

Sample ID: **SL-522-SA7-SB-0.0-0.5** ***Collected:*** **4/15/2013 1:30:00** ***Analysis Type:*** **REA/TOT** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.145	J	0.104	MDL	0.415	PQL	mg/Kg	J	Z

Sample ID: **SL-522-SA7-SB-0.0-0.5** ***Collected:*** **4/15/2013 1:30:00** ***Analysis Type:*** **RES/TOT** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SILVER	0.0296	J	0.0207	MDL	0.207	PQL	mg/Kg	J	Z

Sample ID: **SL-534-SA7-SB-5.5-6.5** ***Collected:*** **4/15/2013 8:45:00** ***Analysis Type:*** **RES/TOT** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SILVER	0.0330	J	0.0202	MDL	0.202	PQL	mg/Kg	J	Z

Sample ID: **SL-537-SA7-SB-0.0-0.5** ***Collected:*** **4/15/2013 9:50:00** ***Analysis Type:*** **RES/TOT** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SILVER	0.0361	J	0.0203	MDL	0.203	PQL	mg/Kg	J	Z

Sample ID: **SL-538-SA7-SB-0.0-0.5** ***Collected:*** **4/15/2013 10:50:00** ***Analysis Type:*** **RES/TOT** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SILVER	0.0394	J	0.0201	MDL	0.201	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3 Subarea 7

Data Qualifier Summary

Lab Reporting Batch ID: PH031 **Laboratory: LL**

EDD Filename: PrepPH031 **eQAPP Name: CDM_SSFL_130621_Lan**

Method Category: METALS

Method: 7471B **Matrix: SO**

Sample ID: SL-521-SA7-SB-0.0-0.5 **Collected: 4/15/2013 2:15:00** **Analysis Type: RES/TOT** **Dilution: 1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0176	J	0.0101	MDL	0.0195	PQL	mg/Kg	J	Z

Sample ID: SL-534-SA7-SB-5.5-6.5 **Collected: 4/15/2013 8:45:00** **Analysis Type: RES/TOT** **Dilution: 1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0125	J	0.0106	MDL	0.0206	PQL	mg/Kg	J	Z

Sample ID: SL-537-SA7-SB-0.0-0.5 **Collected: 4/15/2013 9:50:00** **Analysis Type: RES/TOT** **Dilution: 1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0156	J	0.0105	MDL	0.0203	PQL	mg/Kg	J	Z

Sample ID: SL-538-SA7-SB-0.0-0.5 **Collected: 4/15/2013 10:50:00** **Analysis Type: RES/TOT** **Dilution: 1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0152	J	0.0101	MDL	0.0195	PQL	mg/Kg	J	Z

Method Category: SVOA

Method: 1613B **Matrix: SO**

Sample ID: SL-521-SA7-SB-0.0-0.5 **Collected: 4/15/2013 2:15:00** **Analysis Type: RES** **Dilution: 1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,7,8,9-HPCDF	0.317	JB	0.0259	MDL	5.09	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HxCDD	1.12	JB	0.0368	MDL	5.09	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HXCDF	0.429	JB	0.0274	MDL	5.09	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDD	2.92	JB	0.0362	MDL	5.09	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.305	JB	0.0270	MDL	5.09	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDD	1.89	JB	0.0346	MDL	5.09	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.133	JBQ	0.0289	MDL	5.09	PQL	ng/Kg	U	B
1,2,3,7,8-PECDD	0.367	JBQ	0.0491	MDL	5.09	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	0.588	JB	0.0438	MDL	5.09	PQL	ng/Kg	J	Z
2,3,4,6,7,8-HXCDF	0.338	JB	0.0269	MDL	5.09	PQL	ng/Kg	J	Z
2,3,4,7,8-PECDF	0.246	JB	0.0437	MDL	5.09	PQL	ng/Kg	J	Z
2,3,7,8-TCDD	0.0697	JQ	0.0330	MDL	1.02	PQL	ng/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3 Subarea 7

Data Qualifier Summary

Lab Reporting Batch ID: PH031 **Laboratory: LL**

EDD Filename: PrepPH031 **eQAPP Name: CDM_SSFL_130621_Lan**

Method Category: **SVOA**

Method: **1613B** ***Matrix:*** **SO**

Sample ID: **SL-521-SA7-SB-0.0-0.5** ***Collected:*** **4/15/2013 2:15:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,3,7,8-TCDF	0.142	J	0.0506	MDL	1.02	PQL	ng/Kg	J	Z

Sample ID: **SL-522-SA7-SB-0.0-0.5** ***Collected:*** **4/15/2013 1:30:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDF	2.24	JB	0.0165	MDL	5.17	PQL	ng/Kg	J	Z
1,2,3,4,7,8,9-HPCDF	0.223	JBQ	0.0304	MDL	5.17	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.474	JBQ	0.0370	MDL	5.17	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HXCDF	0.295	JB	0.0312	MDL	5.17	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDD	1.31	JB	0.0361	MDL	5.17	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.244	JB	0.0270	MDL	5.17	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDD	0.961	JB	0.0340	MDL	5.17	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.148	JBQ	0.0325	MDL	5.17	PQL	ng/Kg	U	B
1,2,3,7,8-PECDD	0.263	JBQ	0.0371	MDL	5.17	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	0.359	JBQ	0.0249	MDL	5.17	PQL	ng/Kg	J	Z
2,3,4,6,7,8-HXCDF	0.259	JBQ	0.0282	MDL	5.17	PQL	ng/Kg	J	Z
2,3,4,7,8-PECDF	0.457	JB	0.0245	MDL	5.17	PQL	ng/Kg	J	Z
2,3,7,8-TCDD	0.0534	J	0.0269	MDL	1.03	PQL	ng/Kg	J	Z
2,3,7,8-TCDF	0.339	J	0.0460	MDL	1.03	PQL	ng/Kg	J	Z
OCDF	4.20	JB	0.0367	MDL	10.3	PQL	ng/Kg	J	Z

Sample ID: **SL-534-SA7-SB-5.5-6.5** ***Collected:*** **4/15/2013 8:45:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	0.643	JBQ	0.0258	MDL	5.19	PQL	ng/Kg	J	Z
1,2,3,4,6,7,8-HPCDF	0.154	JB	0.00718	MDL	5.19	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.0444	JBQ	0.0137	MDL	5.19	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.0331	JBQ	0.0222	MDL	5.19	PQL	ng/Kg	U	B
1,2,3,4,7,8-HXCDF	0.0810	JBQ	0.0143	MDL	5.19	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.0745	JBQ	0.0226	MDL	5.19	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDF	0.0694	JBQ	0.0128	MDL	5.19	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.0901	JBQ	0.0212	MDL	5.19	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDF	0.0773	JBQ	0.0169	MDL	5.19	PQL	ng/Kg	U	B
1,2,3,7,8-PECDD	0.0653	JBQ	0.0223	MDL	5.19	PQL	ng/Kg	U	B
1,2,3,7,8-PECDF	0.134	JBQ	0.0125	MDL	5.19	PQL	ng/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3 Subarea 7

Data Qualifier Summary

Lab Reporting Batch ID: PH031 **Laboratory: LL**

EDD Filename: PrepPH031 **eQAPP Name: CDM_SSFL_130621_Lan**

Method Category: **SVOA**

Method: **1613B** ***Matrix:*** **SO**

Sample ID: **SL-534-SA7-SB-5.5-6.5** ***Collected:*** **4/15/2013 8:45:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,3,4,6,7,8-HXCDF	0.0541	JBQ	0.0143	MDL	5.19	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.0780	JBQ	0.0126	MDL	5.19	PQL	ng/Kg	U	B
2,3,7,8-TCDD	0.0290	J	0.0229	MDL	1.04	PQL	ng/Kg	J	Z
OCDD	7.49	JB	0.0224	MDL	10.4	PQL	ng/Kg	J	Z
OCDF	0.327	JBQ	0.0373	MDL	10.4	PQL	ng/Kg	U	B

Sample ID: **SL-537-SA7-SB-0.0-0.5** ***Collected:*** **4/15/2013 9:50:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDF	2.91	JB	0.0149	MDL	5.09	PQL	ng/Kg	J	Z
1,2,3,4,7,8,9-HPCDF	0.261	JBQ	0.0273	MDL	5.09	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.340	JBQ	0.0340	MDL	5.09	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HXCDF	0.201	JB	0.0282	MDL	5.09	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.969	JB	0.0336	MDL	5.09	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.167	JB	0.0243	MDL	5.09	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDD	0.814	JB	0.0337	MDL	5.09	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.0382	JBQ	0.0326	MDL	5.09	PQL	ng/Kg	U	B
1,2,3,7,8-PECDD	0.288	JB	0.0326	MDL	5.09	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	0.169	JB	0.0193	MDL	5.09	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.173	JB	0.0273	MDL	5.09	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.138	JBQ	0.0187	MDL	5.09	PQL	ng/Kg	U	B
2,3,7,8-TCDD	0.0372	JQ	0.0242	MDL	1.02	PQL	ng/Kg	J	Z
2,3,7,8-TCDF	0.0992	J	0.0323	MDL	1.02	PQL	ng/Kg	J	Z
OCDF	7.37	JB	0.0392	MDL	10.2	PQL	ng/Kg	J	Z

Sample ID: **SL-538-SA7-SB-0.0-0.5** ***Collected:*** **4/15/2013 10:50:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,7,8,9-HPCDF	0.416	JB	0.0295	MDL	4.85	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HxCDD	0.533	JB	0.0354	MDL	4.85	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HXCDF	0.270	JBQ	0.0300	MDL	4.85	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDD	1.59	JB	0.0355	MDL	4.85	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.254	JB	0.0273	MDL	4.85	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDD	1.20	JB	0.0308	MDL	4.85	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.147	JBQ	0.0335	MDL	4.85	PQL	ng/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3 Subarea 7

Data Qualifier Summary

Lab Reporting Batch ID: PH031 **Laboratory: LL**

EDD Filename: PrepPH031 **eQAPP Name: CDM_SSFL_130621_Lan**

Method Category: SVOA
Method: 1613B **Matrix:** SO

Sample ID: SL-538-SA7-SB-0.0-0.5 **Collected:** 4/15/2013 10:50:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,7,8-PECDD	0.319	JBQ	0.0351	MDL	4.85	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	0.281	JB	0.0189	MDL	4.85	PQL	ng/Kg	J	Z
2,3,4,6,7,8-HXCDF	0.302	JB	0.0300	MDL	4.85	PQL	ng/Kg	J	Z
2,3,4,7,8-PECDF	0.207	JB	0.0185	MDL	4.85	PQL	ng/Kg	U	B
2,3,7,8-TCDD	0.0426	J	0.0247	MDL	0.971	PQL	ng/Kg	J	Z
2,3,7,8-TCDF	0.116	J	0.0336	MDL	0.971	PQL	ng/Kg	J	Z

Method Category: SVOA
Method: 8015M **Matrix:** SO

Sample ID: SL-522-SA7-SB-0.0-0.5 **Collected:** 4/15/2013 1:30:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C15-C20)	2.2	J	2.1	MDL	5.2	PQL	mg/Kg	J	Z

Sample ID: SL-534-SA7-SB-5.5-6.5 **Collected:** 4/15/2013 8:45:00 **Analysis Type:** REA **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C15-C20)	2.8	J	2.1	MDL	5.2	PQL	mg/Kg	J	Z
EFH (C21-C30)	8.1		2.1	MDL	5.2	PQL	mg/Kg	J	Q, Q
EFH (C30-C40)	12		4.2	MDL	10	PQL	mg/Kg	J	Q

Method Category: SVOA
Method: 8081B **Matrix:** SO

Sample ID: SL-521-SA7-SB-0.0-0.5 **Collected:** 4/15/2013 2:15:00 **Analysis Type:** RES-BASE/NEUTRAL **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDE	0.80	J	0.34	MDL	1.7	PQL	ug/Kg	J	Z
4,4'-DDT	0.62	J	0.36	MDL	1.7	PQL	ug/Kg	J	Z, *XIII

Sample ID: SL-522-SA7-SB-0.0-0.5 **Collected:** 4/15/2013 1:30:00 **Analysis Type:** RES-BASE/NEUTRAL **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDE	1.5	J	0.34	MDL	1.8	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3 Subarea 7

Data Qualifier Summary

Lab Reporting Batch ID: PH031 **Laboratory: LL**

EDD Filename: PrepPH031 **eQAPP Name: CDM_SSFL_130621_Lan**

Method Category: SVOA
Method: 8081B **Matrix:** SO

Sample ID: SL-522-SA7-SB-0.0-0.5 **Collected:** 4/15/2013 1:30:00 **Analysis Type:** RES-BASE/NEUTRAL **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDT	1.7	J	0.36	MDL	1.8	PQL	ug/Kg	J	Z
ENDOSULFAN I	0.86	U	0.23	MDL	0.86	PQL	ug/Kg	R	Q

Method Category: SVOA
Method: 8082A **Matrix:** SO

Sample ID: SL-521-SA7-SB-0.0-0.5 **Collected:** 4/15/2013 2:15:00 **Analysis Type:** RES-BASE/NEUTRAL **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1254	6.7	J	4.4	MDL	17	PQL	ug/Kg	J	Z
Aroclor 5460	17	J	10	MDL	33	PQL	ug/Kg	J	Z

Sample ID: SL-537-SA7-SB-0.0-0.5 **Collected:** 4/15/2013 9:50:00 **Analysis Type:** RES-BASE/NEUTRAL **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1260	11	J	3.9	MDL	17	PQL	ug/Kg	J	Z, S

Method Category: SVOA
Method: 8270D SIM **Matrix:** SO

Sample ID: SL-521-SA7-SB-0.0-0.5 **Collected:** 4/15/2013 2:15:00 **Analysis Type:** RES-BASE/NEUTRAL **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTHRACENE	1.0	J	0.33	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(A)ANTHRACENE	1.5	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	1.1	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	1.3	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	8.4	J	6.0	MDL	18	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	1.1	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: SL-522-SA7-SB-0.0-0.5 **Collected:** 4/15/2013 1:30:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1-METHYLNAPHTHALENE	0.94	J	0.69	MDL	1.7	PQL	ug/Kg	J	Z
2-METHYLNAPHTHALENE	1.5	J	0.69	MDL	1.7	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3 Subarea 7

Data Qualifier Summary

Lab Reporting Batch ID: PH031 **Laboratory: LL**

EDD Filename: PrepPH031 **eQAPP Name: CDM_SSFL_130621_Lan**

Method Category: **SVOA**

Method: **8270D SIM** ***Matrix:*** **SO**

Sample ID: **SL-522-SA7-SB-0.0-0.5** ***Collected:*** **4/15/2013 1:30:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACENAPHTHYLENE	0.40	J	0.34	MDL	1.7	PQL	ug/Kg	J	Z
ANTHRACENE	1.6	J	0.34	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(E)PYRENE	3.5	J	3.4	MDL	18	PQL	ug/Kg	J	Z
FLUORENE	1.2	J	0.69	MDL	1.7	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	1.4	J	0.69	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: **SL-534-SA7-SB-5.5-6.5** ***Collected:*** **4/15/2013 8:45:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	8.0	J	6.2	MDL	19	PQL	ug/Kg	J	Z

Sample ID: **SL-537-SA7-SB-0.0-0.5** ***Collected:*** **4/15/2013 9:50:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2-METHYLNAPHTHALENE	0.72	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(A)ANTHRACENE	1.1	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	1.5	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	1.6	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	1.4	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	0.97	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
NAPHTHALENE	0.84	J	0.68	MDL	1.7	PQL	ug/Kg	U	F

Sample ID: **SL-538-SA7-SB-0.0-0.5** ***Collected:*** **4/15/2013 10:50:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2-METHYLNAPHTHALENE	0.93	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
ANTHRACENE	0.50	J	0.33	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(E)PYRENE	3.9	J	3.3	MDL	17	PQL	ug/Kg	J	Z
DIBENZO(A,H)ANTHRACENE	0.89	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
FLUORENE	0.79	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z
NAPHTHALENE	0.88	J	0.67	MDL	1.7	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3 Subarea 7

Data Qualifier Summary

Lab Reporting Batch ID: PH031 **Laboratory: LL**

EDD Filename: PrepPH031 **eQAPP Name: CDM_SSFL_130621_Lan**

Reason Code Legend

Reason Code	*Description*
*XIII	RPD Between Two Columns
A	Professional Judgment
B	Calibration Blank Contamination
B	Method Blank Contamination
E	Matrix Spike Precision
F	Equipment Blank Contamination
F	Field Blank Contamination
Q	Matrix Spike Lower Estimation
Q	Matrix Spike Lower Rejection
Q	Matrix Spike Precision
Q	Matrix Spike Upper Estimation
S	Surrogate/Tracer Recovery Upper Estimation
Z	Reporting Limit Trace Value

* denotes a non-reportable result

Enclosure I

Level III ADR Outliers
(including Manual Review Outliers)

Quality Control Outlier Reports

PH031

Method Blank Outlier Report

Lab Reporting Batch ID: PH031 **Laboratory: LL**

EDD Filename: PrepPH031 **eQAPP Name: CDM_SSFL_130621_Lan**

Method: **1613B**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
BLK1070B371837	4/18/2013 6:37:00 PM	1,2,3,4,6,7,8-HPCDD	0.0818 ng/Kg	SL-521-SA7-SB-0.0-0.5
		1,2,3,4,6,7,8-HPCDF	0.0623 ng/Kg	SL-522-SA7-SB-0.0-0.5
		1,2,3,4,7,8,9-HPCDF	0.0596 ng/Kg	SL-534-SA7-SB-5.5-6.5
		1,2,3,4,7,8-HxCDD	0.0185 ng/Kg	SL-537-SA7-SB-0.0-0.5
		1,2,3,4,7,8-HXCDF	0.0425 ng/Kg	SL-538-SA7-SB-0.0-0.5
		1,2,3,6,7,8-HXCDD	0.0275 ng/Kg	
		1,2,3,6,7,8-HXCDF	0.0316 ng/Kg	
		1,2,3,7,8,9-HXCDD	0.0437 ng/Kg	
		1,2,3,7,8,9-HXCDF	0.0663 ng/Kg	
		1,2,3,7,8-PECDD	0.0350 ng/Kg	
		1,2,3,7,8-PECDF	0.0538 ng/Kg	
		2,3,4,6,7,8-HXCDF	0.0359 ng/Kg	
		2,3,4,7,8-PECDF	0.0482 ng/Kg	
		OCDD	0.151 ng/Kg	
		OCDF	0.164 ng/Kg	

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-521-SA7-SB-0.0-0.5(RES)	1,2,3,7,8,9-HXCDF	0.133 ng/Kg	0.133U ng/Kg
SL-522-SA7-SB-0.0-0.5(RES)	1,2,3,4,7,8,9-HPCDF	0.223 ng/Kg	0.223U ng/Kg
SL-522-SA7-SB-0.0-0.5(RES)	1,2,3,7,8,9-HXCDF	0.148 ng/Kg	0.148U ng/Kg
SL-534-SA7-SB-5.5-6.5(RES)	1,2,3,4,6,7,8-HPCDF	0.154 ng/Kg	0.154U ng/Kg
SL-534-SA7-SB-5.5-6.5(RES)	1,2,3,4,7,8,9-HPCDF	0.0444 ng/Kg	0.0444U ng/Kg
SL-534-SA7-SB-5.5-6.5(RES)	1,2,3,4,7,8-HxCDD	0.0331 ng/Kg	0.0331U ng/Kg
SL-534-SA7-SB-5.5-6.5(RES)	1,2,3,4,7,8-HXCDF	0.0810 ng/Kg	0.0810U ng/Kg
SL-534-SA7-SB-5.5-6.5(RES)	1,2,3,6,7,8-HXCDD	0.0745 ng/Kg	0.0745U ng/Kg
SL-534-SA7-SB-5.5-6.5(RES)	1,2,3,6,7,8-HXCDF	0.0694 ng/Kg	0.0694U ng/Kg
SL-534-SA7-SB-5.5-6.5(RES)	1,2,3,7,8,9-HXCDD	0.0901 ng/Kg	0.0901U ng/Kg
SL-534-SA7-SB-5.5-6.5(RES)	1,2,3,7,8,9-HXCDF	0.0773 ng/Kg	0.0773U ng/Kg
SL-534-SA7-SB-5.5-6.5(RES)	1,2,3,7,8-PECDD	0.0653 ng/Kg	0.0653U ng/Kg
SL-534-SA7-SB-5.5-6.5(RES)	1,2,3,7,8-PECDF	0.134 ng/Kg	0.134U ng/Kg
SL-534-SA7-SB-5.5-6.5(RES)	2,3,4,6,7,8-HXCDF	0.0541 ng/Kg	0.0541U ng/Kg
SL-534-SA7-SB-5.5-6.5(RES)	2,3,4,7,8-PECDF	0.0780 ng/Kg	0.0780U ng/Kg
SL-534-SA7-SB-5.5-6.5(RES)	OCDF	0.327 ng/Kg	0.327U ng/Kg
SL-537-SA7-SB-0.0-0.5(RES)	1,2,3,4,7,8,9-HPCDF	0.261 ng/Kg	0.261U ng/Kg
SL-537-SA7-SB-0.0-0.5(RES)	1,2,3,4,7,8-HXCDF	0.201 ng/Kg	0.201U ng/Kg
SL-537-SA7-SB-0.0-0.5(RES)	1,2,3,7,8,9-HXCDF	0.0382 ng/Kg	0.0382U ng/Kg
SL-537-SA7-SB-0.0-0.5(RES)	1,2,3,7,8-PECDF	0.169 ng/Kg	0.169U ng/Kg
SL-537-SA7-SB-0.0-0.5(RES)	2,3,4,6,7,8-HXCDF	0.173 ng/Kg	0.173U ng/Kg
SL-537-SA7-SB-0.0-0.5(RES)	2,3,4,7,8-PECDF	0.138 ng/Kg	0.138U ng/Kg
SL-538-SA7-SB-0.0-0.5(RES)	1,2,3,7,8,9-HXCDF	0.147 ng/Kg	0.147U ng/Kg
SL-538-SA7-SB-0.0-0.5(RES)	2,3,4,7,8-PECDF	0.207 ng/Kg	0.207U ng/Kg

Method Blank Outlier Report

Lab Reporting Batch ID: PH031 **Laboratory: LL**

EDD Filename: PrepPH031 **eQAPP Name: CDM_SSFL_130621_Lan**

Method: **6010C**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P10737AB221907	4/21/2013 7:07:00 PM	MAGNESIUM PHOSPHORUS TIN	1.82 mg/Kg 10.9 mg/Kg 1.40 mg/Kg	SL-521-SA7-SB-0.0-0.5 SL-522-SA7-SB-0.0-0.5 SL-534-SA7-SB-5.5-6.5 SL-537-SA7-SB-0.0-0.5 SL-538-SA7-SB-0.0-0.5

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-521-SA7-SB-0.0-0.5(RES/TOT)	TIN	2.81 mg/Kg	2.81U mg/Kg
SL-522-SA7-SB-0.0-0.5(RES/TOT)	TIN	2.44 mg/Kg	2.44U mg/Kg
SL-534-SA7-SB-5.5-6.5(RES/TOT)	TIN	2.63 mg/Kg	2.63U mg/Kg
SL-537-SA7-SB-0.0-0.5(RES/TOT)	TIN	2.78 mg/Kg	2.78U mg/Kg
SL-538-SA7-SB-0.0-0.5(RES/TOT)	TIN	2.62 mg/Kg	2.62U mg/Kg

Equipment Rinsate Blank Outlier Report

Lab Reporting Batch ID: PH031 **Laboratory: LL**

EDD Filename: PrepPH031 **eQAPP Name: CDM_SSFL_130621_Lan**

Method: **6010C**
Matrix: **SO**

Equipment Blank Sample ID	Collected Date	Analyte	Result	Associated Samples
EB-041813(RES)	4/18/2013 3:00:00 PM	MOLYBDENUM	0.0036 mg/L	SL-521-SA7-SB-0.0-0.5 SL-522-SA7-SB-0.0-0.5 SL-534-SA7-SB-5.5-6.5 SL-537-SA7-SB-0.0-0.5 SL-538-SA7-SB-0.0-0.5

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-521-SA7-SB-0.0-0.5(RES/TOT)	MOLYBDENUM	0.491 mg/Kg	0.491U mg/Kg
SL-522-SA7-SB-0.0-0.5(RES/TOT)	MOLYBDENUM	0.349 mg/Kg	0.349U mg/Kg
SL-534-SA7-SB-5.5-6.5(RES/TOT)	MOLYBDENUM	0.441 mg/Kg	0.441U mg/Kg
SL-538-SA7-SB-0.0-0.5(RES/TOT)	MOLYBDENUM	0.266 mg/Kg	0.266U mg/Kg

Field Blank Outlier Report

Lab Reporting Batch ID: PH031 **Laboratory: LL**

EDD Filename: PrepPH031 **eQAPP Name: CDM_SSFL_130621_Lan**

Method: **6010C**
Matrix: **SO**

Field Blank Sample ID	Collected Date	Analyte	Result	Associated Samples
FB-041113(REA2)	4/11/2013 3:00:00 PM	COPPER MOLYBDENUM	0.0036 mg/L 0.0036 mg/L	SL-521-SA7-SB-0.0-0.5 SL-522-SA7-SB-0.0-0.5 SL-534-SA7-SB-5.5-6.5 SL-537-SA7-SB-0.0-0.5 SL-538-SA7-SB-0.0-0.5

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-521-SA7-SB-0.0-0.5(RES/TOT)	MOLYBDENUM	0.491 mg/Kg	0.491U mg/Kg
SL-522-SA7-SB-0.0-0.5(RES/TOT)	MOLYBDENUM	0.349 mg/Kg	0.349U mg/Kg
SL-534-SA7-SB-5.5-6.5(RES/TOT)	MOLYBDENUM	0.441 mg/Kg	0.441U mg/Kg
SL-538-SA7-SB-0.0-0.5(RES/TOT)	MOLYBDENUM	0.266 mg/Kg	0.266U mg/Kg

Method: **8270D SIM**
Matrix: **SO**

Field Blank Sample ID	Collected Date	Analyte	Result	Associated Samples
FB-041113(RES)	4/11/2013 3:00:00 PM	1-METHYLNAPHTHALENE 2-METHYLNAPHTHALENE BIS(2-ETHYLHEXYL)PHTHALATE Diethylphthalate Di-n-butylphthalate NAPHTHALENE	0.019 ug/L 0.024 ug/L 0.082 ug/L 0.18 ug/L 0.17 ug/L 0.17 ug/L	SL-521-SA7-SB-0.0-0.5 SL-522-SA7-SB-0.0-0.5 SL-534-SA7-SB-5.5-6.5 SL-537-SA7-SB-0.0-0.5 SL-538-SA7-SB-0.0-0.5

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-537-SA7-SB-0.0-0.5(RES)	NAPHTHALENE	0.84 ug/Kg	1.7U ug/Kg

Surrogate Outlier Report

Lab Reporting Batch ID: PH031 **Laboratory: LL**

EDD Filename: PH031_v1. **eQAPP Name: CDM_SSFL_130621_Lan**

Method: **8082A**
Matrix: **SO**

Sample ID (Analysis Type)	*Surrogate*	*Sample % Recovery*	*% Recovery Limits*	*Affected Compounds*	*Flag*
SL-522-SA7-SB-0.0 -0.5	TETRACHLORO-M-XYLENE	122	45.00-120.00	All Target Analytes	J (all detects)
SL-537-SA7-SB-0.0 -0.5	TETRACHLORO-M-XYLENE	122	45.00-120.00	All Target Analytes	J(all detects)

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: PH031 **Laboratory: LL**

EDD Filename: PH031_v1. **eQAPP Name: CDM_SSFL_130621_Lan**

Method: 8081B
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-522-SA7-SB-0.0-0.5MS **SL-522-SA7-SB-0.0-0.5MSD** (SL-522-SA7-SB-0.0-0.5)	ENDOSULFAN I	0	-	16.00-137.00	200 (50.00)	ENDOSULFAN I	J (all detects) R (all non-detects)

Method: 8015M
Matrix: SO

QC Sample ID (Associated Samples)	Compound	MS %R	MSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
SL-534-SA7-SB-5.5-6.5MS **SL-534-SA7-SB-5.5-6.5MSD** (SL-534-SA7-SB-5.5-6.5)	EFH (C21-C30) EFH (C30-C40)	130 163	- -	49.00-123.00 49.00-123.00	28 (20.00) -	EFH (C21-C30) EFH (C30-C40)	J(all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: PH031 **Laboratory: LL**

EDD Filename: PH031_v1. **eQAPP Name: CDM_SSFL_130621_Lan**

Method: **1613B**

Matrix: **SO**

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-521-SA7-SB-0.0-0.5	1,2,3,4,7,8,9-HPCDF	JB	0.317	5.09	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JB	1.12	5.09	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JB	0.429	5.09	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JB	2.92	5.09	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	0.305	5.09	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JB	1.89	5.09	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JBQ	0.133	5.09	PQL	ng/Kg	J (all detects)
	1,2,3,7,8-PECDD	JBQ	0.367	5.09	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JB	0.588	5.09	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JB	0.338	5.09	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	0.246	5.09	PQL	ng/Kg	
	2,3,7,8-TCDD	JQ	0.0697	1.02	PQL	ng/Kg	
	2,3,7,8-TCDF	J	0.142	1.02	PQL	ng/Kg	
SL-522-SA7-SB-0.0-0.5	1,2,3,4,6,7,8-HPCDF	JB	2.24	5.17	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.223	5.17	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JBQ	0.474	5.17	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JB	0.295	5.17	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JB	1.31	5.17	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	0.244	5.17	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JB	0.961	5.17	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JBQ	0.148	5.17	PQL	ng/Kg	J (all detects)
	1,2,3,7,8-PECDD	JBQ	0.263	5.17	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JBQ	0.359	5.17	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JBQ	0.259	5.17	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	0.457	5.17	PQL	ng/Kg	
	2,3,7,8-TCDD	J	0.0534	1.03	PQL	ng/Kg	
	2,3,7,8-TCDF	J	0.339	1.03	PQL	ng/Kg	
	OCDF	JB	4.20	10.3	PQL	ng/Kg	
SL-534-SA7-SB-5.5-6.5	1,2,3,4,6,7,8-HPCDD	JBQ	0.643	5.19	PQL	ng/Kg	
	1,2,3,4,6,7,8-HPCDF	JB	0.154	5.19	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.0444	5.19	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JBQ	0.0331	5.19	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JBQ	0.0810	5.19	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JBQ	0.0745	5.19	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.0694	5.19	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JBQ	0.0901	5.19	PQL	ng/Kg	J (all detects)
	1,2,3,7,8,9-HXCDF	JBQ	0.0773	5.19	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JBQ	0.0653	5.19	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JBQ	0.134	5.19	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JBQ	0.0541	5.19	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.0780	5.19	PQL	ng/Kg	
	2,3,7,8-TCDD	J	0.0290	1.04	PQL	ng/Kg	
	OCDD	JB	7.49	10.4	PQL	ng/Kg	
	OCDF	JBQ	0.327	10.4	PQL	ng/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: PH031 **Laboratory: LL**

EDD Filename: PH031_v1. **eQAPP Name: CDM_SSFL_130621_Lan**

Method: 1613B
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-537-SA7-SB-0.0-0.5	1,2,3,4,6,7,8-HPCDF	JB	2.91	5.09	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JBQ	0.261	5.09	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JBQ	0.340	5.09	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JB	0.201	5.09	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JB	0.969	5.09	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	0.167	5.09	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JB	0.814	5.09	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JBQ	0.0382	5.09	PQL	ng/Kg	J (all detects)
	1,2,3,7,8-PECDD	JB	0.288	5.09	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JB	0.169	5.09	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JB	0.173	5.09	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.138	5.09	PQL	ng/Kg	
	2,3,7,8-TCDD	JQ	0.0372	1.02	PQL	ng/Kg	
	2,3,7,8-TCDF	J	0.0992	1.02	PQL	ng/Kg	
	OCDF	JB	7.37	10.2	PQL	ng/Kg	
SL-538-SA7-SB-0.0-0.5	1,2,3,4,7,8,9-HPCDF	JB	0.416	4.85	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JB	0.533	4.85	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JBQ	0.270	4.85	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JB	1.59	4.85	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	0.254	4.85	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JB	1.20	4.85	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JBQ	0.147	4.85	PQL	ng/Kg	J (all detects)
	1,2,3,7,8-PECDD	JBQ	0.319	4.85	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JB	0.281	4.85	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JB	0.302	4.85	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	0.207	4.85	PQL	ng/Kg	
	2,3,7,8-TCDD	J	0.0426	0.971	PQL	ng/Kg	
	2,3,7,8-TCDF	J	0.116	0.971	PQL	ng/Kg	

Method: 6010C
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-521-SA7-SB-0.0-0.5	ANTIMONY	J	1.52	3.92	PQL	mg/Kg	
	ARSENIC	J	3.85	3.92	PQL	mg/Kg	
	BERYLLIUM	J	0.618	0.979	PQL	mg/Kg	
	BORON	J	2.86	9.79	PQL	mg/Kg	J (all detects)
	CADMIUM	J	0.379	0.979	PQL	mg/Kg	
	MOLYBDENUM	J	0.491	1.96	PQL	mg/Kg	
	SODIUM	J	64.5	97.9	PQL	mg/Kg	
	TIN	J	2.81	9.79	PQL	mg/Kg	
SL-522-SA7-SB-0.0-0.5	ANTIMONY	J	1.89	4.15	PQL	mg/Kg	
	ARSENIC	J	2.40	4.15	PQL	mg/Kg	
	BERYLLIUM	J	0.537	1.04	PQL	mg/Kg	
	BORON	J	3.26	10.4	PQL	mg/Kg	J (all detects)
	CADMIUM	J	0.468	1.04	PQL	mg/Kg	
	MOLYBDENUM	J	0.349	2.07	PQL	mg/Kg	
	SODIUM	J	70.7	104	PQL	mg/Kg	
	TIN	J	2.44	10.4	PQL	mg/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: PH031 **Laboratory: LL**

EDD Filename: PH031_v1. **eQAPP Name: CDM_SSFL_130621_Lan**

Method: 6010C
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-534-SA7-SB-5.5-6.5	ANTIMONY	J	1.87	4.03	PQL	mg/Kg	J (all detects)
	ARSENIC	J	2.46	4.03	PQL	mg/Kg	
	BERYLLIUM	J	0.582	1.01	PQL	mg/Kg	
	BORON	J	1.47	10.1	PQL	mg/Kg	
	CADMIUM	J	0.418	1.01	PQL	mg/Kg	
	MOLYBDENUM	J	0.441	2.02	PQL	mg/Kg	
	SODIUM	J	67.8	101	PQL	mg/Kg	
	TIN	J	2.63	10.1	PQL	mg/Kg	
SL-537-SA7-SB-0.0-0.5	ANTIMONY	J	1.73	4.05	PQL	mg/Kg	J (all detects)
	ARSENIC	J	2.50	4.05	PQL	mg/Kg	
	BERYLLIUM	J	0.477	1.01	PQL	mg/Kg	
	BORON	J	2.96	10.1	PQL	mg/Kg	
	CADMIUM	J	0.511	1.01	PQL	mg/Kg	
	SODIUM	J	62.0	101	PQL	mg/Kg	
	TIN	J	2.78	10.1	PQL	mg/Kg	
	Zirconium	J	0.916	5.07	PQL	mg/Kg	
SL-538-SA7-SB-0.0-0.5	ANTIMONY	J	1.49	4.02	PQL	mg/Kg	J (all detects)
	ARSENIC	J	1.83	4.02	PQL	mg/Kg	
	BERYLLIUM	J	0.492	1.01	PQL	mg/Kg	
	BORON	J	3.01	10.1	PQL	mg/Kg	
	CADMIUM	J	0.445	1.01	PQL	mg/Kg	
	MOLYBDENUM	J	0.266	2.01	PQL	mg/Kg	
	SODIUM	J	60.1	101	PQL	mg/Kg	
	TIN	J	2.62	10.1	PQL	mg/Kg	

Method: 6020A
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-521-SA7-SB-0.0-0.5	SELENIUM	J	0.173	0.392	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0272	0.196	PQL	mg/Kg	
SL-522-SA7-SB-0.0-0.5	SELENIUM	J	0.145	0.415	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0296	0.207	PQL	mg/Kg	
SL-534-SA7-SB-5.5-6.5	SILVER	J	0.0330	0.202	PQL	mg/Kg	J (all detects)
SL-537-SA7-SB-0.0-0.5	SILVER	J	0.0361	0.203	PQL	mg/Kg	J (all detects)
SL-538-SA7-SB-0.0-0.5	SILVER	J	0.0394	0.201	PQL	mg/Kg	J (all detects)

Method: 7471B
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-521-SA7-SB-0.0-0.5	MERCURY	J	0.0176	0.0195	PQL	mg/Kg	J (all detects)
SL-534-SA7-SB-5.5-6.5	MERCURY	J	0.0125	0.0206	PQL	mg/Kg	J (all detects)
SL-537-SA7-SB-0.0-0.5	MERCURY	J	0.0156	0.0203	PQL	mg/Kg	J (all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: PH031 **Laboratory: LL**

EDD Filename: PH031_v1. **eQAPP Name: CDM_SSFL_130621_Lan**

Method: 7471B
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-538-SA7-SB-0.0-0.5	MERCURY	J	0.0152	0.0195	PQL	mg/Kg	J (all detects)

Method: 8015M
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-522-SA7-SB-0.0-0.5	EFH (C15-C20)	J	2.2	5.2	PQL	mg/Kg	J (all detects)
SL-534-SA7-SB-5.5-6.5	EFH (C15-C20)	J	2.8	5.2	PQL	mg/Kg	J (all detects)

Method: 8081B
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-521-SA7-SB-0.0-0.5	4,4'-DDE 4,4'-DDT	J J	0.80 0.62	1.7 1.7	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-522-SA7-SB-0.0-0.5	4,4'-DDE 4,4'-DDT	J J	1.5 1.7	1.8 1.8	PQL PQL	ug/Kg ug/Kg	J (all detects)

Method: 8082A
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-521-SA7-SB-0.0-0.5	AROCLOR 1254 Aroclor 5460	J J	6.7 17	17 33	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-537-SA7-SB-0.0-0.5	AROCLOR 1260	J	11	17	PQL	ug/Kg	J (all detects)

Method: 8270D SIM
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-521-SA7-SB-0.0-0.5	ANTHRACENE BENZO(A)ANTHRACENE BENZO(A)PYRENE BENZO(G,H,I)PERYLENE BIS(2-ETHYLHEXYL)PHTHALATE INDENO(1,2,3-CD)PYRENE	J J J J J J	1.0 1.5 1.1 1.3 8.4 1.1	1.7 1.7 1.7 1.7 18 1.7	PQL PQL PQL PQL PQL PQL	ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg	J (all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: PH031 **Laboratory: LL**

EDD Filename: PH031_v1. **eQAPP Name: CDM_SSFL_130621_Lan**

Method: **8270D SIM**

Matrix: **SO**

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-522-SA7-SB-0.0-0.5	1-METHYLNAPHTHALENE	J	0.94	1.7	PQL	ug/Kg	J (all detects)
	2-METHYLNAPHTHALENE	J	1.5	1.7	PQL	ug/Kg	
	ACENAPHTHYLENE	J	0.40	1.7	PQL	ug/Kg	
	ANTHRACENE	J	1.6	1.7	PQL	ug/Kg	
	BENZO(E)PYRENE	J	3.5	18	PQL	ug/Kg	
	FLUORENE	J	1.2	1.7	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	1.4	1.7	PQL	ug/Kg	
SL-534-SA7-SB-5.5-6.5	BIS(2-ETHYLHEXYL)PHTHALATE	J	8.0	19	PQL	ug/Kg	J (all detects)
SL-537-SA7-SB-0.0-0.5	2-METHYLNAPHTHALENE	J	0.72	1.7	PQL	ug/Kg	J (all detects)
	BENZO(A)ANTHRACENE	J	1.1	1.7	PQL	ug/Kg	
	BENZO(A)PYRENE	J	1.5	1.7	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	1.6	1.7	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	1.4	1.7	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	0.97	1.7	PQL	ug/Kg	
	NAPHTHALENE	J	0.84	1.7	PQL	ug/Kg	
SL-538-SA7-SB-0.0-0.5	2-METHYLNAPHTHALENE	J	0.93	1.7	PQL	ug/Kg	J (all detects)
	ANTHRACENE	J	0.50	1.7	PQL	ug/Kg	
	BENZO(E)PYRENE	J	3.9	17	PQL	ug/Kg	
	DIBENZO(A,H)ANTHRACENE	J	0.89	1.7	PQL	ug/Kg	
	FLUORENE	J	0.79	1.7	PQL	ug/Kg	
	NAPHTHALENE	J	0.88	1.7	PQL	ug/Kg	

LDC #: 29836E4

SDG #: PH031

Laboratory: Eurofins Lancaster Laboratories

VALIDATION COMPLETENESS WORKSHEET

ADR

Date: 6/11/13

Page: 1 of 1

Reviewer:

2nd Reviewer:

METHOD: Metals (EPA SW 846 Method 6010C/6020A/7000)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	—	Sampling dates: 4/15/13
II.	ICP/MS Tune	—	
III.	Calibration	—	
IV.	Blanks	SW	
V.	ICP Interference Check Sample (ICS) Analysis	A —	
VI.	Matrix Spike Analysis	N	MS/D (from PH030)
VII.	Duplicate Sample Analysis	N	Dup
VIII.	Laboratory Control Samples (LCS)	A	LCS
IX.	Internal Standard (ICP-MS)	N	
X.	Furnace Atomic Absorption QC	N	
XI.	ICP Serial Dilution	A	
XII.	Sample Result Verification	N	
XIII.	Overall Assessment of Data	N	
XIV.	Field Duplicates	—	
XV	Field Blanks	SW	FB= FB-041113 (PH029) EB= EB-041813 (PH034)

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples: Soil

1 36	SL-534-SA7-SB-5.5-6.5	11		21		31	
2 37	SL-537-SA7-SB-0.0-0.5	12		22		32	
3 38	SL-538-SA7-SB-0.0-0.5	13		23		33	
4 39	SL-522-SA7-SB-0.0-0.5	14		24		34	
5 40	SL-521-SA7-SB-0.0-0.5	15		25		35	
6		16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Notes:

LDC #: 29836E4

VALIDATION FINDINGS WORKSHEET
PB/ICB/CCB QUALIFIED SAMPLES

Page: 1 of 1
Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: Trace metals (EPA SW 864 Method 6010B/6020/7000) Soil preparation factor applied: 100x Reason: B

Sample Concentration units, unless otherwise noted: mg/Kg Associated Samples: All

Analyte	Maximum PB[a] (mg/Kg)	Maximum PB[a] (ug/l)	Maximum ICB/CCB[a] (ug/l)	Action Level	1	3	4	5					
Mo			2.8	1.4	0.44	0.27	0.35	0.49					

Samples with analyte concentrations within five times the associated ICB, CCB or PB concentration are listed above with the identifications from the Validation Completeness Worksheet. These sample results were qualified as not detected, "U".
Note : a - The listed analyte concentration is the highest ICB, CCB, or PB detected in the analysis of each element.

LDC #: 29836E4

VALIDATION FINDINGS WORKSHEET
Field Blanks

Page: 1 of 1
Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: Trace Metals (EPA SW846 6010B/7000)

Blank units: mg/L **Associated sample units:** mg/Kg Reason: F
Sampling date: EB=4/18/13 FB=4/11/13 Soil factor applied 100x
Field blank type: (circle one) Field Blank / Rinsate / Other: Associated Samples: All Soil

Analyte	Blank ID	Blank ID	Sample Identification											
	EB-041813	FB-041113	Action Limit	1	3	4	5							
Cu		0.0036	1.8											
Mo	0.0036	0.0036	1.8	0.44	0.27	0.35	0.49							
Sr	0.000028		0.014											

CIRCLED RESULTS WERE NOT QUALIFIED. ALL RESULTS NOT CIRCLED WERE QUALIFIED BY THE FOLLOWING STATEMENT:
Samples with analyte concentrations within five times the associated field blank concentration are listed above, these sample results were qualified as not detected, "U".

Enclosure II

Level IV Validation Reports

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name:	Santa Susana Field Laboratory
Collection Date:	April 15, 2013
LDC Report Date:	June 24, 2013
Matrix:	Soil
Parameters:	Chlorinated Pesticides
Validation Level:	Level IV
Laboratory:	Eurofins
Sample Delivery Group (SDG):	PH031

Sample Identification

SL-522-SA7-SB-0.0-0.5
SL-521-SA7-SB-0.0-0.5
SL-522-SA7-SB-0.0-0.5MS
SL-522-SA7-SB-0.0-0.5MSD

Introduction

This data review covers 4 soil samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8081A for Chlorinated Pesticides.

This review follows the Quality Assurance Project Plan for Santa Susana Field Laboratory (SSFL), RCRA Facility Investigation, Surficial Media Operable Unit (March 2009, Revision 4) and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of presence of the compound at an estimated quantity.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/ECD Instrument Performance Check

Instrument performance was acceptable unless noted otherwise under initial calibration and continuing calibration sections.

III. Initial Calibration

Initial calibration of single compounds was performed for the primary (quantitation) column and confirmation column as required by this method.

Percent relative standard deviations (%RSD) were less than or equal to 20.0% for all compounds.

Retention time windows were evaluated and considered technically acceptable.

IV. Continuing Calibration

Continuing calibration was performed at required frequencies.

The percent differences (%D) of calibration factors in continuing standard mixtures were within the 20.0% QC limits.

The percent differences (%D) of the second source calibration standard were less than or equal to 20.0% for all compounds.

Retention times (RT) of all compounds in the calibration standards were within QC limits.

The individual 4,4'-DDT and Endrin breakdowns (%BD) were less than or equal to 15.0%.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No chlorinated pesticide contaminants were found in the method blanks.

Sample EB-041813 (from SDG PH034) was identified as an equipment blank. No chlorinated pesticide contaminants were found.

Sample FB-041113 (from SDG PH029) was identified as a field blank. No chlorinated pesticide contaminants were found.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits with the following exceptions:

Spike ID (Associated Samples)	Compound	MS (%R) (Limits)	MSD (%R) (Limits)	RPD (Limits)	Flag	A or P
SL-522-SA7-SB-0.0-0.5MS/MSD (SL-522-SA7-SB-0.0-0.5)	Endosulfan I	0 (16-137)	-	200 (≤50)	J (all detects) R (all non-detects)	A

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Florisil Cartridge Check

Florisil cleanup was not required and therefore not performed in this SDG.

XI. GPC Calibration

GPC cleanup was not required and therefore not performed in this SDG.

XII. Target Compound Identification

All target compound identifications were within validation criteria.

XIII. Compound Quantitation

All compound quantitations were within validation criteria.

The sample results for detected compounds from the two columns were within 40% relative percent difference (RPD) with the following exceptions:

Sample	Compound	RPD	Flag	A or P
SL-521-SA7-SB-0.0-0.5	4,4'-DDT	45	J (all detects)	A

All compounds reported below the RL were qualified as follows:

Sample	Finding	Flag	A or P
All samples in SDG PH031	All compounds reported below the RL.	J (all detects)	A

XIV. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XV. Field Duplicates

No field duplicates were identified in this SDG.

Santa Susana Field Laboratory
Chlorinated Pesticides - Data Qualification Summary - SDG PH031

SDG	Sample	Compound	Flag	A or P	Reason (Code)
PH031	SL-522-SA7-SB-0.0-0.5	Endosulfan I	J (all detects) R (all non-detects)	A	Matrix spike/Matrix spike duplicate (%R)(RPD) (Q)
PH031	SL-521-SA7-SB-0.0-0.5	4,4'-DDT	J (all detects)	A	Compound quantitation (RPD) (*XIII)
PH031	SL-522-SA7-SB-0.0-0.5 SL-521-SA7-SB-0.0-0.5	All compounds reported below the RL.	J (all detects)	A	Compound quantitation (Z)

Santa Susana Field Laboratory
Chlorinated Pesticides - Laboratory Blank Data Qualification Summary - SDG PH031

No Sample Data Qualified in this SDG

Santa Susana Field Laboratory
Chlorinated Pesticides - Field Blank Data Qualification Summary - SDG PH031

No Sample Data Qualified in this SDG

LDC #: 29836E3a

VALIDATION COMPLETENESS WORKSHEET

Level IV

Date: 6/5/13

SDG #: PH031

Page: 1 of 1

Laboratory: Eurofins Lancaster Laboratories

Reviewer:

2nd Reviewer:

METHOD: GC Chlorinated Pesticides (EPA SW846 Method 8081A)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 4/15/13
II.	GC/ECD Instrument Performance Check	A	
III.	Initial calibration	A	% RSD ≤ 20
IV.	Continuing calibration/ICV	A	104/CCV ≤ 20
V.	Blanks	A	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	SW	
VIII.	Laboratory control samples	A	LCS
IX.	Regional quality assurance and quality control	N	
X.	Florisil cartridge check	N	
XI.	GPC Calibration	N	
XII.	Target compound identification	A	
XIII.	Compound quantitation/RL/LOQ/LODs	SW	
XIV.	Overall assessment of data	A	
XV.	Field duplicates	N	
XVI.	Field blanks	ND	EB= EB-041813 (SDG # PH034) FB= FB-041113 (SDG # PH029)

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples:

39	1	SL-522-SA7-SB-0.0-0.5	11	PBLK12108	21		31	
40	2	SL-521-SA7-SB-0.0-0.5	12		22		32	
	3	#/MS	13		23		33	
	4	#/MSD	14		24		34	
	5		15		25		35	
	6		16		26		36	
	7		17		27		37	
	8		18		28		38	
	9		19		29		39	
	10		20		30		40	

Notes:

LDC #: 29836E3a

VALIDATION FINDINGS CHECKLIST

Page: 1 of 2
Reviewer: FT
2nd Reviewer: A

Method: Pesticides/PCBs (EPA SW 846 Method 8081A/8082)

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. GC/ECD Instrument performance check				
Was the instrument performance found to be acceptable?	✓			
III. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	✓			
Was a linear fit used for evaluation? If yes, were all percent relative standard deviations (%RSD) ≤ 20%?	✓			
Was a curve fit used for evaluation? If Yes, what was the acceptance criteria used?		✓		
Did the initial calibration meet the curve fit acceptance criteria?			✓	
Were the RT windows properly established?	✓			
Were the required standard concentrations analyzed in the initial calibration?	✓			
IV. Continuing calibration				
What type of continuing calibration calculation was performed? ____%D or ____%R	✓			
Were Evaluation mix standards analyzed prior to the initial calibration and sample analysis?	✓			
Were endrin and 4,4'-DDT breakdowns ≤ 15% for individual breakdown in the Evaluation mix standards?	✓			
Was a continuing calibration analyzed daily?	✓			
Were all percent differences (%D) ≤ 20%?	✓			
Were all the retention times within the acceptance windows?	✓			
V. Blanks				
Was a method blank associated with every sample in this SDG?	✓			
Was a method blank analyzed for each matrix and concentration?	✓			
Were extract cleanup blanks analyzed with every batch requiring clean-up?			✓	
Was there contamination in the method blanks or clean-up blanks? If yes, please see the Blanks validation completeness worksheet.		✓		
VI. Surrogate spikes				
Were all surrogate %R within the QC limits?	✓			
If the percent recovery (%R) of one or more surrogates was outside QC limits, was a reanalysis performed to confirm %R?			✓	
If any %R was less than 10 percent, was a reanalysis performed to confirm %R?			✓	

LDC #: 29836E3a

VALIDATION FINDINGS CHECKLIST

Reviewer: FT
2nd Reviewer: A

Validation Area	Yes	No	NA	Findings/Comments
VII. Matrix spike/Matrix spike duplicates				
Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.	✓			
Was a MS/MSD analyzed every 20 samples of each matrix?	✓			
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?		✓		
VIII. Laboratory control samples				
Was an LCS analyzed for this SDG?	✓			
Was an LCS analyzed per extraction batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	✓			
IX. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?			✓	
Were the performance evaluation (PE) samples within the acceptance limits?			✓	
X. Target compound identification				
Were the retention times of reported detects within the RT windows?	✓			
XI. Compound quantitation/CRQLs				
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions, dry weight factors, and clean-up activities applicable to level IV validation?	✓			
XII. System performance				
System performance was found to be acceptable.	✓			
XIII. Overall assessment of data				
Overall assessment of data was found to be acceptable.	✓			
XIV. Field duplicates				
Field duplicate pairs were identified in this SDG.		✓		
Target compounds were detected in the field duplicates.			✓	
XV. Field blanks				
Field blanks were identified in this SDG.		✓		
Target compounds were detected in the field blanks.			✓	

VALIDATION FINDINGS WORKSHEET

METHOD: Pesticide/PCBs (EPASW 846 Method 8081/8082)

A. alpha-BHC	I. Dieldrin	Q. Endrin ketone	Y. Aroclor-1242	GG.
B. beta-BHC	J. 4,4'-DDE	R. Endrin aldehyde	Z. Aroclor-1248	HH.
C. delta-BHC	K. Endrin	S. alpha-Chlordane	AA. Aroclor-1254	II.
D. gamma-BHC	L. Endosulfan II	T. gamma-Chlordane	BB. Aroclor-1260	JJ.
E. Heptachlor	M. 4,4'-DDD	U. Toxaphene	CC. DB 608	KK.
F. Aldrin	N. Endosulfan sulfate	V. Aroclor-1016	DD. DB 1701	LL.
G. Heptachlor epoxide	O. 4,4'-DDT	W. Aroclor-1221	EE.	MM.
H. Endosulfan I	P. Methoxychlor	X. Aroclor-1232	FF.	NN.

Notes:_____

LDC #: 29836E3a

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates

Page: 1 of 1
Reviewer: F7
2nd Reviewer: [illegible]

METHOD: ✓ GC ___ HPLC

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG?
Y N N/A Was an MS/MSD analyzed every 20 samples for each matrix or whenever a sample extraction was performed?
Y N N/A Were the MS/MSD percent recoveries (%R) and relative percent differences (RPD) within QC limits?

#	MS/MSD ID	Compound	MS %R (Limits)	MSD %R (Limits)	RPD (Limits)	Associated Samples	Qualifications
	3 + 4	H	0 (16-137)	( )	200 (50)	1	J/R/A (Q)
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		
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			( )	( )	( )		
			( )	( )	( )		
			( )	( )	( )		

LDC #: 29836E3a

VALIDATION FINDINGS WORKSHEET
Compound Quantitation and Reported CRQLs

Page: 1 of 1
Reviewer: F7
2nd Reviewer: [illegible]

METHOD: ✓ GC __ HPLC

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".
Level IV/D Only
Y N N/A Were CRQLs adjusted for sample dilutions, dry weight factors, etc.?
Y N N/A Did the reported results for detected target compounds agree within 10.0% of the recalculated results?

#	Compound Name	% RPD Bet 2 col ≤40 Finding	Associated Samples	Qualifications
	Θ	45	2	J/A det * XIII

Comments: See sample calculation verification worksheet for recalculations

COMQUANew.wpd

LDC #: 29836E39

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Page: 1 of 1
Reviewer: F7
2nd Reviewer: [illegible]

METHOD: GC ✓ HPLC_____

The calibration factors (CF) and relative standard deviation (%RSD) were recalculated using the following calculations:

CF = A/C
Average CF = sum of the CF/number of standards
%RSD = 100 * (S/X)

Where: A = Area of compound
C = Concentration of compound
S = Standard deviation of calibration factors
X = Mean of calibration factors

#	Standard ID	Calibration Date	Compound	Reported CF (10/100 std)	Recalculated CF (10/100 std)	Reported CF (initial)	Recalculated CF (intial)	Reported %RSD	Recalculated %RSD
1	ICAL	4/22/13	endosulfan I RTXclp1	3.60×10^5	3.6×10^5	3.67×10^5	3.67×10^5	6	6
			methoxychlor	8.57×10^4	8.57×10^4	8.59×10^4	8.59×10^4	2	2
2			RTXclp2	7.74×10^4	7.74×10^4	7.95×10^5	7.95×10^5	4	4
				1.82×10^4	1.82×10^4	1.85×10^4	1.85×10^4	2	2
3	ICAL	4/23/13	RTXclp1	3.81×10^5	3.81×10^5	3.83×10^5	3.83×10^5	7	7
				1.04×10^5	1.04×10^5	1.06×10^5	1.06×10^5	5	5
			RTXclp2	8.02×10^4	8.02×10^4	8.18×10^4	8.18×10^4	6	6
				2.27×10^4	2.27×10^4	2.30×10^4	2.30×10^4	4	4
4									

Comments: Refer to Initial Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 09836 E 3a

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Page: 1 of 1
Reviewer: FZ
2nd Reviewer: [illegible]

METHOD: GC ✓ HPLC _____

The percent difference (%D) of the initial calibration average Calibration Factors (CF) and the continuing calibration CF were recalculated for the compounds identified below using the following calculation:

% Difference = 100 * (ave. CF -CF)/ave.CF

Where: ave. CF = initial calibration average CF
CF = continuing calibration CF
A = Area of compound
C = Concentration of compound

#	Standard ID	Calibration Date	Compound	Average CF(Ical)/ CCV Conc.	Reported CF/ Conc. CCV	Recalculated CF/ Conc. CCV	Reported %D	Recalculated %D
1			Analyzed	after 1 CM				
2								
3								
4								

Comments: Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 29836E3a

VALIDATION FINDINGS WORKSHEET
Surrogate Results Verification

Page: 1 of 1
Reviewer: F7
2nd reviewer: [illegible]

METHOD: GC Pesticides (EPA SW 846 Method 8081)

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery: SF/SS * 100

Where: SF = Surrogate Found
SS = Surrogate Spiked

Sample ID: 1

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	
TCMX	RTX CLP 2	10.09	9.184918	91	91	0
DCB	↓	↓	11.085118	109	109	0

Sample ID:

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	

Sample ID:

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	

LDC #: 29836E3a

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates Results Verification

Page: 1 of 1
Reviewer: FT
2nd Reviewer: [illegible]

METHOD: GC Pesticides (EPA SW 846 Method 8081)

The percent recoveries (%R) and relative percent differences (RPD) of the matrix spike and matrix spike duplicate were recalculated for the compounds identified below using the following calculation:

%Recovery = 100 * (SSC - SC)/SA

RPD =(({SSCMS - SSCMSD} * 2) / (SSCMS + SSCMSD))*100

Where SSC = Spiked sample concentration
SA = Spike added
MS = Matrix spike
SC = Sample concentration
MSD = Matrix spike duplicate

MS/MSD samples: 3 + 4

Compound	Spike Added (ug/kg)		Sample Conc. (ug/kg)	Spike Sample Concentration (ug/kg)		Matrix spike Percent Recovery		Matrix Spike Duplicate Percent Recovery		MS/MSD RPD	
	MS	MSD	---	MS	MSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.
Gamma - BHC	3.41		ND	3.05	3.03	89	89	89	89	1	1
4,4'- DDT	7.14		1.62	8.1	8.12	91	91	91	91	0	0

Comments: Refer to Matrix Spike/Matrix Spike Duplicates findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 29836E35

VALIDATION FINDINGS WORKSHEET

Laboratory Control Sample/Laboratory Control Sample Duplicates Results Verification

Reviewer: FT
2nd Reviewer: [illegible]

METHOD: GC Pesticides (EPA SW 846 method 8081)

The percent recoveries (%R) and relative percent differences (RPD) of the laboratory control sample and laboratory control sample duplicate were recalculated for the compounds identified below using the following calculation:

%Recovery = 100 * (SSC - SC)/SA

RPD =(({SSCLCS - SSCLCSD} * 2) / (SSCLCS + SSCLCSD))*100

Where SSC = Spiked sample concentration; SA = Spike added; LCS = Laboratory Control Sample; SC = Sample concentration; LCSD = Laboratory Control Sample duplicate

LCS/LCSD samples: LCS 12108

Compound	Spike Added (ug/kg)		Sample Conc. (ug/kg)	Spike Sample Concentration (ug/kg)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	---	LCS	LCSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.
Gamma-BHC	3.41	NA		2.95	NA	87	87				
4,4'-DDT	7.14	NA		6.2	NA	87	87	NA			

Comments: Refer to Laboratory Control Sample/Laboratory Control Sample Duplicate findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 29836E39

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Reviewer: FT
2nd Reviewer: [illegible]

METHOD: **GC** Pesticides (EPA SW 846 Method 8081)

Y N N/A Were all reported results recalculated and verified for all level IV samples?
Y N N/A Were all recalculated results for detected target compounds within 10% of the reported results?

Concentration= (A)(Fv)(Df) / (RF)(Vs or Ws)(%S/100)

A= Area or height of the compound to be measured
Fv= Final Volume of extract
Df= Dilution Factor
RF= Average response factor of the compound In the initial calibration
Vs= Initial volume of the sample
Ws= Initial weight of the sample
%S= Percent Solid

Example:

Sample ID. #1 Compound Name 4,4-DDE

Concentration = 16685 72 (10) / (3.8 x 10^5)(30)(0.964)

= 1.518 ug/kg

#	Sample ID	Compound	Reported Concentrations ( )	Recalculated Results Concentrations ( )	Qualifications

Comments:

Attachment I

Sample ID Cross Reference and Data Review Level

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
16-Apr-2013	TB-041613	7024689	TB	5030B	8015M	III
16-Apr-2013	SL-559-SA7-SB-0.0-0.5	7024684	N	3050B	6010C	III
16-Apr-2013	SL-559-SA7-SB-0.0-0.5	7024684	N	3050B	6020A	III
16-Apr-2013	SL-559-SA7-SB-0.0-0.5	7024684	N	3546	8015M	III
16-Apr-2013	SL-559-SA7-SB-0.0-0.5	7024684	N	3546	8082A	III
16-Apr-2013	SL-559-SA7-SB-0.0-0.5	7024684	N	3546	8270D SIM	III
16-Apr-2013	SL-559-SA7-SB-0.0-0.5	7024684	N	METHOD	1613B	III
16-Apr-2013	SL-559-SA7-SB-0.0-0.5	7024684	N	METHOD	7471B	III
16-Apr-2013	SL-559-SA7-SB-2.0-3.0	7024685	N	3050B	6010C	III
16-Apr-2013	SL-559-SA7-SB-2.0-3.0	7024685	N	3050B	6020A	III
16-Apr-2013	SL-559-SA7-SB-2.0-3.0	7024685	N	3546	8015M	III
16-Apr-2013	SL-559-SA7-SB-2.0-3.0	7024685	N	3546	8082A	III
16-Apr-2013	SL-559-SA7-SB-2.0-3.0	7024685	N	3546	8270D SIM	III
16-Apr-2013	SL-559-SA7-SB-2.0-3.0	7024685	N	5035A	8015M	III
16-Apr-2013	SL-559-SA7-SB-2.0-3.0	7024685	N	METHOD	1613B	III
16-Apr-2013	SL-559-SA7-SB-2.0-3.0	7024685	N	METHOD	7471B	III
16-Apr-2013	SL-560-SA7-SB-0.0-0.5	7024686	N	3050B	6010C	III
16-Apr-2013	SL-560-SA7-SB-0.0-0.5	7024686	N	3050B	6020A	III
16-Apr-2013	SL-560-SA7-SB-0.0-0.5	7024686	N	3546	8015M	III
16-Apr-2013	SL-560-SA7-SB-0.0-0.5	7024686	N	3546	8082A	III
16-Apr-2013	SL-560-SA7-SB-0.0-0.5	7024686	N	3546	8270D SIM	III
16-Apr-2013	SL-560-SA7-SB-0.0-0.5	7024686	N	METHOD	1613B	III
16-Apr-2013	SL-560-SA7-SB-0.0-0.5	7024686	N	METHOD	7471B	III
16-Apr-2013	SL-560-SA7-SB-3.0-4.0	7024687	N	3050B	6010C	III
16-Apr-2013	SL-560-SA7-SB-3.0-4.0	7024687	N	3050B	6020A	III
16-Apr-2013	SL-560-SA7-SB-3.0-4.0	7024687	N	3546	8015M	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
16-Apr-2013	SL-560-SA7-SB-3.0-4.0	7024687	N	3546	8082A	III
16-Apr-2013	SL-560-SA7-SB-3.0-4.0	7024687	N	3546	8270D SIM	III
16-Apr-2013	SL-560-SA7-SB-3.0-4.0	7024687	N	5035A	8015M	III
16-Apr-2013	SL-560-SA7-SB-3.0-4.0	7024687	N	METHOD	1613B	III
16-Apr-2013	SL-560-SA7-SB-3.0-4.0	7024687	N	METHOD	7471B	III
16-Apr-2013	SL-561-SA7-SB-0.0-0.5	7024688	N	3050B	6010C	III
16-Apr-2013	SL-561-SA7-SB-0.0-0.5	7024688	N	3050B	6020A	III
16-Apr-2013	SL-561-SA7-SB-0.0-0.5	7024688	N	3546	8015M	III
16-Apr-2013	SL-561-SA7-SB-0.0-0.5	7024688	N	3546	8082A	III
16-Apr-2013	SL-561-SA7-SB-0.0-0.5	7024688	N	3546	8270D SIM	III
16-Apr-2013	SL-561-SA7-SB-0.0-0.5	7024688	N	METHOD	1613B	III
16-Apr-2013	SL-561-SA7-SB-0.0-0.5	7024688	N	METHOD	7471B	III
16-Apr-2013	SL-558-SA7-SB-0.0-0.5	7024690	N	3050B	6010C	III
16-Apr-2013	SL-558-SA7-SB-0.0-0.5	7024690	N	3050B	6020A	III
16-Apr-2013	SL-558-SA7-SB-0.0-0.5	7024690	N	3546	8015M	III
16-Apr-2013	SL-558-SA7-SB-0.0-0.5	7024690	N	3546	8082A	III
16-Apr-2013	SL-558-SA7-SB-0.0-0.5	7024690	N	3546	8270D SIM	III
16-Apr-2013	SL-558-SA7-SB-0.0-0.5	7024690	N	METHOD	1613B	III
16-Apr-2013	SL-558-SA7-SB-0.0-0.5	7024690	N	METHOD	7471B	III
16-Apr-2013	FB-041613	7024683	FB	3005A	6010C	III
16-Apr-2013	FB-041613	7024683	FB	3510C	8015B	III
16-Apr-2013	FB-041613	7024683	FB	3510C	8015M	III
16-Apr-2013	FB-041613	7024683	FB	3510C	8081B	III
16-Apr-2013	FB-041613	7024683	FB	3510C	8082A	III
16-Apr-2013	FB-041613	7024683	FB	3510C	8270D	III
16-Apr-2013	FB-041613	7024683	FB	3510C	8270D SIM	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
16-Apr-2013	FB-041613	7024683	FB	5030B	8015M	III
16-Apr-2013	FB-041613	7024683	FB	5030B	8260B	III
16-Apr-2013	FB-041613	7024683	FB	5030B	8260B SIM	III
16-Apr-2013	FB-041613	7024683	FB	8330	8330A	III
16-Apr-2013	FB-041613	7024683	FB	Gen Prep	300.0	III
16-Apr-2013	FB-041613	7024683	FB	Gen Prep	350.3	III
16-Apr-2013	FB-041613	7024683	FB	Gen Prep	6850	III
16-Apr-2013	FB-041613	7024683	FB	Gen Prep	7199	III
16-Apr-2013	FB-041613	7024683	FB	Gen Prep	8015C	III
16-Apr-2013	FB-041613	7024683	FB	M3010A	6020A	III
16-Apr-2013	FB-041613	7024683	FB	METHOD	1613B	III
16-Apr-2013	FB-041613	7024683	FB	METHOD	7470A	III
16-Apr-2013	FB-041613	7024683	FB	METHOD	8151A	III
16-Apr-2013	FB-041613	7024683	FB	METHOD	8315A	III
16-Apr-2013	FB-041613	7024683	FB	METHOD	9012B	III
16-Apr-2013	FB-041613MSD	P024683M321833A	MSD	Gen Prep	8015C	III
16-Apr-2013	FB-041613MS	P024683R321815A	MS	Gen Prep	8015C	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Attachment II

Overall Data Qualification Summary

Data Qualifier Summary

Lab Reporting Batch ID: PH032 **Laboratory: LL**

EDD Filename: PrepPH032 **eQAPP Name: CDM_SSFL_130621_Lan**

Method Category: METALS
Method: 6010C **Matrix:** AQ

Sample ID: FB-041613 **Collected:** 4/16/2013 3:15:00 **Analysis Type:** REA2/TOT **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.0132	J	0.0029	MDL	0.0200	PQL	mg/L	U	B
TIN	0.0029	J	0.0022	MDL	0.0400	PQL	mg/L	J	Z

Method Category: METALS
Method: 6010C **Matrix:** SO

Sample ID: SL-558-SA7-SB-0.0-0.5 **Collected:** 4/16/2013 2:35:00 **Analysis Type:** RES/TOT **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	1.18	J	0.503	MDL	4.02	PQL	mg/Kg	J	Z, Q
ARSENIC	1.55	J	0.332	MDL	4.02	PQL	mg/Kg	J	Z
BERYLLIUM	0.378	J	0.0674	MDL	1.01	PQL	mg/Kg	J	Z
BORON	3.37	J	0.835	MDL	10.1	PQL	mg/Kg	J	Z
CADMIUM	0.651	J	0.0332	MDL	1.01	PQL	mg/Kg	J	Z
MOLYBDENUM	0.229	J	0.171	MDL	2.01	PQL	mg/Kg	U	B, F, F
PHOSPHORUS	308		0.513	MDL	10.1	PQL	mg/Kg	J	Q
POTASSIUM	2190		13.6	MDL	101	PQL	mg/Kg	J	Q
SODIUM	77.4	J	16.8	MDL	101	PQL	mg/Kg	J	Z
TIN	2.26	J	0.221	MDL	10.1	PQL	mg/Kg	U	B
Zirconium	1.32	J	0.835	MDL	5.03	PQL	mg/Kg	J	Z

Sample ID: SL-559-SA7-SB-0.0-0.5 **Collected:** 4/16/2013 8:45:00 **Analysis Type:** RES/TOT **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	2.12	J	0.501	MDL	4.01	PQL	mg/Kg	J	Z, Q
ARSENIC	2.48	J	0.331	MDL	4.01	PQL	mg/Kg	J	Z
BERYLLIUM	0.650	J	0.0672	MDL	1.00	PQL	mg/Kg	J	Z
BORON	3.07	J	0.832	MDL	10.0	PQL	mg/Kg	J	Z
CADMIUM	0.469	J	0.0331	MDL	1.00	PQL	mg/Kg	J	Z
MOLYBDENUM	0.327	J	0.171	MDL	2.01	PQL	mg/Kg	U	B, F, F
PHOSPHORUS	412		0.512	MDL	10.0	PQL	mg/Kg	J	Q
POTASSIUM	3800		13.5	MDL	100	PQL	mg/Kg	J	Q
SODIUM	82.6	J	16.7	MDL	100	PQL	mg/Kg	J	Z
TIN	2.89	J	0.221	MDL	10.0	PQL	mg/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3 Subarea 7

Data Qualifier Summary

Lab Reporting Batch ID: PH032 **Laboratory: LL**

EDD Filename: PrepPH032 **eQAPP Name: CDM_SSFL_130621_Lan**

Method Category: **METALS**

Method: **6010C** ***Matrix:*** **SO**

Sample ID: **SL-559-SA7-SB-0.0-0.5** ***Collected:*** **4/16/2013 8:45:00** ***Analysis Type:*** **RES/TOT** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Zirconium	1.39	J	0.832	MDL	5.01	PQL	mg/Kg	J	Z

Sample ID: **SL-559-SA7-SB-2.0-3.0** ***Collected:*** **4/16/2013 9:25:00** ***Analysis Type:*** **RES/TOT** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	2.08	J	0.516	MDL	4.13	PQL	mg/Kg	J	Z, Q
ARSENIC	3.18	J	0.341	MDL	4.13	PQL	mg/Kg	J	Z
BERYLLIUM	0.673	J	0.0691	MDL	1.03	PQL	mg/Kg	J	Z
BORON	3.55	J	0.857	MDL	10.3	PQL	mg/Kg	J	Z
CADMIUM	0.467	J	0.0341	MDL	1.03	PQL	mg/Kg	J	Z
MOLYBDENUM	0.397	J	0.175	MDL	2.06	PQL	mg/Kg	U	B, F, F
PHOSPHORUS	363		0.526	MDL	10.3	PQL	mg/Kg	J	Q
POTASSIUM	2920		13.9	MDL	103	PQL	mg/Kg	J	Q
SODIUM	82.0	J	17.2	MDL	103	PQL	mg/Kg	J	Z
TIN	2.50	J	0.227	MDL	10.3	PQL	mg/Kg	U	B
Zirconium	1.37	J	0.857	MDL	5.16	PQL	mg/Kg	J	Z

Sample ID: **SL-560-SA7-SB-0.0-0.5** ***Collected:*** **4/16/2013 10:20:00** ***Analysis Type:*** **RES/TOT** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	1.91	J	0.516	MDL	4.13	PQL	mg/Kg	J	Z, Q
ARSENIC	2.31	J	0.341	MDL	4.13	PQL	mg/Kg	J	Z
BERYLLIUM	0.579	J	0.0691	MDL	1.03	PQL	mg/Kg	J	Z
BORON	4.59	J	0.857	MDL	10.3	PQL	mg/Kg	J	Z
CADMIUM	0.445	J	0.0341	MDL	1.03	PQL	mg/Kg	J	Z
MOLYBDENUM	0.216	J	0.175	MDL	2.06	PQL	mg/Kg	U	B, F, F
PHOSPHORUS	419		0.526	MDL	10.3	PQL	mg/Kg	J	Q
POTASSIUM	3210		13.9	MDL	103	PQL	mg/Kg	J	Q
SODIUM	99.7	J	17.2	MDL	103	PQL	mg/Kg	J	Z
TIN	2.60	J	0.227	MDL	10.3	PQL	mg/Kg	U	B
Zirconium	0.971	J	0.857	MDL	5.16	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3 Subarea 7

Data Qualifier Summary

Lab Reporting Batch ID: PH032 **Laboratory: LL**

EDD Filename: PrepPH032 **eQAPP Name: CDM_SSFL_130621_Lan**

Method Category: METALS

Method: 6010C **Matrix:** SO

Sample ID: SL-560-SA7-SB-3.0-4.0 **Collected:** 4/16/2013 11:05:00 **Analysis Type:** RES/TOT **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	2.55	J	0.550	MDL	4.40	PQL	mg/Kg	J	Z, Q
BERYLLIUM	1.01	J	0.0737	MDL	1.10	PQL	mg/Kg	J	Z
BORON	5.41	J	0.913	MDL	11.0	PQL	mg/Kg	J	Z
CADMIUM	0.736	J	0.0363	MDL	1.10	PQL	mg/Kg	J	Z
MOLYBDENUM	0.360	J	0.187	MDL	2.20	PQL	mg/Kg	U	B, F, F
PHOSPHORUS	386		0.561	MDL	11.0	PQL	mg/Kg	J	Q
POTASSIUM	4110		14.9	MDL	110	PQL	mg/Kg	J	Q
TIN	2.88	J	0.242	MDL	11.0	PQL	mg/Kg	U	B
Zirconium	4.08	J	0.913	MDL	5.50	PQL	mg/Kg	J	Z

Sample ID: SL-561-SA7-SB-0.0-0.5 **Collected:** 4/16/2013 1:30:00 **Analysis Type:** RES/TOT **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	1.73	J	0.505	MDL	4.04	PQL	mg/Kg	J	Z, Q
ARSENIC	2.59	J	0.333	MDL	4.04	PQL	mg/Kg	J	Z
BERYLLIUM	0.562	J	0.0677	MDL	1.01	PQL	mg/Kg	J	Z
BORON	4.91	J	0.839	MDL	10.1	PQL	mg/Kg	J	Z
CADMIUM	0.581	J	0.0333	MDL	1.01	PQL	mg/Kg	J	Z
MOLYBDENUM	0.501	J	0.172	MDL	2.02	PQL	mg/Kg	U	B, F, F
PHOSPHORUS	601		0.515	MDL	10.1	PQL	mg/Kg	J	Q
POTASSIUM	3510		13.6	MDL	101	PQL	mg/Kg	J	Q
SODIUM	93.3	J	16.9	MDL	101	PQL	mg/Kg	J	Z
TIN	2.88	J	0.222	MDL	10.1	PQL	mg/Kg	U	B

Method Category: METALS

Method: 6020A **Matrix:** SO

Sample ID: SL-558-SA7-SB-0.0-0.5 **Collected:** 4/16/2013 2:35:00 **Analysis Type:** RES/TOT **Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SILVER	0.0267	J	0.0201	MDL	0.201	PQL	mg/Kg	J	Z
THALLIUM	0.138	J	0.0302	MDL	0.201	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3 Subarea 7

Data Qualifier Summary

Lab Reporting Batch ID: PH032 **Laboratory: LL**

EDD Filename: PrepPH032 **eQAPP Name: CDM_SSFL_130621_Lan**

Method Category: **METALS**

Method: **6020A** ***Matrix:*** **SO**

Sample ID: **SL-559-SA7-SB-0.0-0.5** ***Collected:*** **4/16/2013 8:45:00** ***Analysis Type:*** **RES/TOT** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SILVER	0.0648	J	0.0201	MDL	0.201	PQL	mg/Kg	J	Z

Sample ID: **SL-559-SA7-SB-2.0-3.0** ***Collected:*** **4/16/2013 9:25:00** ***Analysis Type:*** **RES/TOT** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SILVER	0.0625	J	0.0206	MDL	0.206	PQL	mg/Kg	J	Z

Sample ID: **SL-560-SA7-SB-0.0-0.5** ***Collected:*** **4/16/2013 10:20:00** ***Analysis Type:*** **RES/TOT** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SILVER	0.0303	J	0.0206	MDL	0.206	PQL	mg/Kg	J	Z

Sample ID: **SL-560-SA7-SB-3.0-4.0** ***Collected:*** **4/16/2013 11:05:00** ***Analysis Type:*** **REA/TOT** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.161	J	0.110	MDL	0.440	PQL	mg/Kg	J	Z

Sample ID: **SL-560-SA7-SB-3.0-4.0** ***Collected:*** **4/16/2013 11:05:00** ***Analysis Type:*** **RES/TOT** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SILVER	0.0406	J	0.0220	MDL	0.220	PQL	mg/Kg	J	Z

Sample ID: **SL-561-SA7-SB-0.0-0.5** ***Collected:*** **4/16/2013 1:30:00** ***Analysis Type:*** **REA/TOT** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.140	J	0.101	MDL	0.404	PQL	mg/Kg	J	Z

Sample ID: **SL-561-SA7-SB-0.0-0.5** ***Collected:*** **4/16/2013 1:30:00** ***Analysis Type:*** **RES/TOT** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SILVER	0.0434	J	0.0202	MDL	0.202	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3 Subarea 7

Data Qualifier Summary

Lab Reporting Batch ID: PH032 **Laboratory: LL**

EDD Filename: PrepPH032 **eQAPP Name: CDM_SSFL_130621_Lan**

Method Category: METALS

Method: 7471B **Matrix:** SO

Sample ID: SL-558-SA7-SB-0.0-0.5 **Collected:** 4/16/2013 2:35:00 **Analysis Type:** RES/TOT **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0181	J	0.0102	MDL	0.0198	PQL	mg/Kg	J	Z

Sample ID: SL-559-SA7-SB-2.0-3.0 **Collected:** 4/16/2013 9:25:00 **Analysis Type:** RES/TOT **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0172	J	0.0107	MDL	0.0208	PQL	mg/Kg	J	Z

Sample ID: SL-560-SA7-SB-3.0-4.0 **Collected:** 4/16/2013 11:05:00 **Analysis Type:** RES/TOT **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0183	J	0.0111	MDL	0.0214	PQL	mg/Kg	J	Z

Method Category: SVOA

Method: 1613B **Matrix:** AQ

Sample ID: FB-041613 **Collected:** 4/16/2013 3:15:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	0.309	JBQ	0.184	MDL	9.71	PQL	pg/L	U	B
1,2,3,4,6,7,8-HPCDF	0.314	JBQ	0.0861	MDL	9.71	PQL	pg/L	U	B
1,2,3,4,7,8-HXCDF	0.257	J	0.103	MDL	9.71	PQL	pg/L	J	Z
1,2,3,7,8,9-HXCDF	0.241	JBQ	0.111	MDL	9.71	PQL	pg/L	U	B
1,2,3,7,8-PECDD	0.434	JBQ	0.301	MDL	9.71	PQL	pg/L	U	B
1,2,3,7,8-PECDF	0.324	JB	0.160	MDL	9.71	PQL	pg/L	U	B
2,3,4,6,7,8-HXCDF	0.284	JBQ	0.101	MDL	9.71	PQL	pg/L	U	B
2,3,4,7,8-PECDF	0.429	JBQ	0.144	MDL	9.71	PQL	pg/L	U	B
OCDD	0.838	JBQ	0.311	MDL	19.4	PQL	pg/L	U	B
OCDF	0.357	JBQ	0.257	MDL	19.4	PQL	pg/L	U	B

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: PH032 **Laboratory: LL**

EDD Filename: PrepPH032 **eQAPP Name: CDM_SSFL_130621_Lan**

Method Category: SVOA

Method: 1613B **Matrix:** SO

Sample ID: SL-558-SA7-SB-0.0-0.5 **Collected:** 4/16/2013 2:35:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,7,8-HXCDF	2.04	JB	0.0685	MDL	5.02	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	1.93	JB	0.0575	MDL	5.02	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDD	1.96	JB	0.0885	MDL	5.02	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	0.320	JB	0.0318	MDL	5.02	PQL	ng/Kg	J	Z
2,3,4,6,7,8-HXCDF	3.03	JB	0.0623	MDL	5.02	PQL	ng/Kg	J	Z
2,3,4,7,8-PECDF	0.317	JBQ	0.0325	MDL	5.02	PQL	ng/Kg	J	Z
2,3,7,8-TCDD	0.148	J	0.0509	MDL	1.00	PQL	ng/Kg	J	Z
2,3,7,8-TCDF	0.138	J	0.0467	MDL	1.00	PQL	ng/Kg	J	Z
OCDD	5670	BE	0.103	MDL	10.0	PQL	ng/Kg	J	*XIII

Sample ID: SL-559-SA7-SB-0.0-0.5 **Collected:** 4/16/2013 8:45:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,7,8,9-HPCDF	1.13	JBQ	0.0458	MDL	5.12	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HxCDD	1.34	JB	0.0352	MDL	5.12	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HXCDF	0.794	JB	0.0351	MDL	5.12	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDD	3.90	JB	0.0353	MDL	5.12	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.689	JB	0.0343	MDL	5.12	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDD	2.68	JB	0.0338	MDL	5.12	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.351	JB	0.0367	MDL	5.12	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDD	0.713	JB	0.0589	MDL	5.12	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	1.09	JBQ	0.0350	MDL	5.12	PQL	ng/Kg	J	Z
2,3,4,6,7,8-HXCDF	0.818	JB	0.0325	MDL	5.12	PQL	ng/Kg	J	Z
2,3,4,7,8-PECDF	0.869	JB	0.0325	MDL	5.12	PQL	ng/Kg	J	Z
2,3,7,8-TCDF	0.318	J	0.0687	MDL	1.02	PQL	ng/Kg	J	Z

Sample ID: SL-559-SA7-SB-2.0-3.0 **Collected:** 4/16/2013 9:25:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,7,8,9-HPCDF	0.479	JB	0.0305	MDL	5.18	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HxCDD	0.462	JB	0.0381	MDL	5.18	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HXCDF	0.399	JB	0.0313	MDL	5.18	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDD	1.49	JB	0.0375	MDL	5.18	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.368	JBQ	0.0306	MDL	5.18	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDD	1.07	JBQ	0.0364	MDL	5.18	PQL	ng/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3 Subarea 7

Data Qualifier Summary

Lab Reporting Batch ID: PH032 **Laboratory: LL**

EDD Filename: PrepPH032 **eQAPP Name: CDM_SSFL_130621_Lan**

Method Category: SVOA

Method: 1613B **Matrix:** SO

Sample ID: SL-559-SA7-SB-2.0-3.0 **Collected:** 4/16/2013 9:25:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,7,8,9-HXCDF	0.235	JB	0.0330	MDL	5.18	PQL	ng/Kg	U	B
1,2,3,7,8-PECDD	0.255	JBQ	0.0333	MDL	5.18	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	1.08	JB	0.0280	MDL	5.18	PQL	ng/Kg	J	Z
2,3,4,6,7,8-HXCDF	0.361	JB	0.0291	MDL	5.18	PQL	ng/Kg	J	Z
2,3,4,7,8-PECDF	0.452	JB	0.0270	MDL	5.18	PQL	ng/Kg	J	Z
2,3,7,8-TCDF	0.0699	JQ	0.0525	MDL	1.04	PQL	ng/Kg	J	Z

Sample ID: SL-560-SA7-SB-0.0-0.5 **Collected:** 4/16/2013 10:20:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,7,8,9-HPCDF	2.05	JBQ	0.0579	MDL	5.04	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HxCDD	1.65	JB	0.0530	MDL	5.04	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HXCDF	0.856	JB	0.0527	MDL	5.04	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.830	JB	0.0475	MDL	5.04	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDD	4.01	JB	0.0497	MDL	5.04	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.355	JB	0.0668	MDL	5.04	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDD	0.937	JB	0.0599	MDL	5.04	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	0.495	JB	0.0253	MDL	5.04	PQL	ng/Kg	J	Z
2,3,4,6,7,8-HXCDF	1.20	JB	0.0490	MDL	5.04	PQL	ng/Kg	J	Z
2,3,4,7,8-PECDF	0.450	JB	0.0247	MDL	5.04	PQL	ng/Kg	J	Z
2,3,7,8-TCDD	0.105	J	0.0293	MDL	1.01	PQL	ng/Kg	J	Z
2,3,7,8-TCDF	0.191	JQ	0.0378	MDL	1.01	PQL	ng/Kg	J	Z

Sample ID: SL-560-SA7-SB-3.0-4.0 **Collected:** 4/16/2013 11:05:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	1.26	JBQ	0.0242	MDL	5.58	PQL	ng/Kg	J	Z
1,2,3,4,6,7,8-HPCDF	0.129	JB	0.00828	MDL	5.58	PQL	ng/Kg	U	B
1,2,3,4,7,8,9-HPCDF	0.125	JB	0.0169	MDL	5.58	PQL	ng/Kg	U	B
1,2,3,4,7,8-HxCDD	0.0961	JB	0.0221	MDL	5.58	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HXCDF	0.157	JB	0.0194	MDL	5.58	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.205	JBQ	0.0224	MDL	5.58	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.0911	JB	0.0163	MDL	5.58	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.262	JBQ	0.0210	MDL	5.58	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.439	JBQ	0.0226	MDL	5.58	PQL	ng/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: PH032 **Laboratory: LL**

EDD Filename: PrepPH032 **eQAPP Name: CDM_SSFL_130621_Lan**

Method Category: SVOA
Method: 1613B **Matrix:** SO

Sample ID: SL-560-SA7-SB-3.0-4.0 **Collected:** 4/16/2013 11:05:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,7,8-PECDD	0.235	JBQ	0.0226	MDL	5.58	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	0.309	JB	0.0124	MDL	5.58	PQL	ng/Kg	J	Z
2,3,4,6,7,8-HXCDF	0.0801	JB	0.0183	MDL	5.58	PQL	ng/Kg	U	B
2,3,4,7,8-PECDF	0.179	JBQ	0.0131	MDL	5.58	PQL	ng/Kg	U	B
2,3,7,8-TCDD	0.0801	JQ	0.0234	MDL	1.12	PQL	ng/Kg	J	Z
2,3,7,8-TCDF	0.0392	JQ	0.0182	MDL	1.12	PQL	ng/Kg	J	Z
OCDD	10.7	JB	0.0227	MDL	11.2	PQL	ng/Kg	J	Z
OCDF	0.373	JBQ	0.0339	MDL	11.2	PQL	ng/Kg	U	B

Sample ID: SL-561-SA7-SB-0.0-0.5 **Collected:** 4/16/2013 1:30:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,7,8,9-HPCDF	2.07	JB	0.0433	MDL	5.20	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HxCDD	0.897	JB	0.0325	MDL	5.20	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HXCDF	1.83	JB	0.0308	MDL	5.20	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDD	4.00	JB	0.0331	MDL	5.20	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	1.49	JB	0.0267	MDL	5.20	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDD	1.82	JB	0.0306	MDL	5.20	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	1.07	JB	0.0330	MDL	5.20	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDD	0.448	JB	0.0432	MDL	5.20	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	0.860	JB	0.0225	MDL	5.20	PQL	ng/Kg	J	Z
2,3,4,6,7,8-HXCDF	1.59	JB	0.0277	MDL	5.20	PQL	ng/Kg	J	Z
2,3,4,7,8-PECDF	1.08	JB	0.0235	MDL	5.20	PQL	ng/Kg	J	Z
2,3,7,8-TCDF	0.507	J	0.0553	MDL	1.04	PQL	ng/Kg	J	Z

Method Category: SVOA
Method: 8015C **Matrix:** AQ

Sample ID: FB-041613 **Collected:** 4/16/2013 3:15:00 **Analysis Type:** REA **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ETHANOL	1000	U	200	MDL	1000	PQL	ug/L	UJ	H
Isopropanol	1000	U	200	MDL	1000	PQL	ug/L	UJ	H
METHANOL	1000	U	200	MDL	1000	PQL	ug/L	UJ	H

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3 Subarea 7

Data Qualifier Summary

Lab Reporting Batch ID: PH032 **Laboratory: LL**

EDD Filename: PrepPH032 **eQAPP Name: CDM_SSFL_130621_Lan**

Method Category: SVOA
Method: 8015M **Matrix:** AQ

Sample ID: FB-041613 **Collected:** 4/16/2013 3:15:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C30-C40)	0.59	U	0.098	MDL	0.59	PQL	mg/L	UJ	L

Method Category: SVOA
Method: 8015M **Matrix:** SO

Sample ID: SL-559-SA7-SB-2.0-3.0 **Collected:** 4/16/2013 9:25:00 **Analysis Type:** REA **Dilution:** 20

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C21-C30)	84	J	42	MDL	110	PQL	mg/Kg	J	Z

Sample ID: SL-560-SA7-SB-0.0-0.5 **Collected:** 4/16/2013 10:20:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C15-C20)	3.0	J	2.1	MDL	5.3	PQL	mg/Kg	J	Z

Sample ID: SL-561-SA7-SB-0.0-0.5 **Collected:** 4/16/2013 1:30:00 **Analysis Type:** RES **Dilution:** 5

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C15-C20)	11	J	10	MDL	26	PQL	mg/Kg	J	Z

Method Category: SVOA
Method: 8082A **Matrix:** SO

Sample ID: SL-559-SA7-SB-0.0-0.5 **Collected:** 4/16/2013 8:45:00 **Analysis Type:** RES-BASE/NEUTRAL **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1254	13	J	4.5	MDL	17	PQL	ug/Kg	J	Z
Aroclor 5460	17	J	10	MDL	34	PQL	ug/Kg	J	Z

Sample ID: SL-559-SA7-SB-2.0-3.0 **Collected:** 4/16/2013 9:25:00 **Analysis Type:** RES-BASE/NEUTRAL **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1254	12	J	4.6	MDL	18	PQL	ug/Kg	J	Z
Aroclor 5460	15	J	10	MDL	34	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3 Subarea 7

Data Qualifier Summary

Lab Reporting Batch ID: PH032 **Laboratory: LL**

EDD Filename: PrepPH032 **eQAPP Name: CDM_SSFL_130621_Lan**

Method Category: SVOA
Method: 8151A **Matrix:** AQ

Sample ID: FB-041613 **Collected:** 4/16/2013 3:15:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,4,5-T	0.049	U	0.015	MDL	0.049	PQL	ug/L	UJ	E
DALAPON	1.2	U	0.25	MDL	1.2	PQL	ug/L	UJ	E
DICAMBA	0.29	U	0.079	MDL	0.29	PQL	ug/L	UJ	E
DICHLOROPROP	0.49	U	0.16	MDL	0.49	PQL	ug/L	UJ	L
DINOSEB	0.49	U	0.12	MDL	0.49	PQL	ug/L	UJ	E
MCPP	200	U	49	MDL	200	PQL	ug/L	UJ	E

Method Category: SVOA
Method: 8270D **Matrix:** AQ

Sample ID: FB-041613 **Collected:** 4/16/2013 3:15:00 **Analysis Type:** RES-ACID **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZOIC ACID	16	U	6	MDL	16	PQL	ug/L	UJ	E

Method Category: SVOA
Method: 8270D SIM **Matrix:** AQ

Sample ID: FB-041613 **Collected:** 4/16/2013 3:15:00 **Analysis Type:** RES-BASE/NEUTRAL **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2-METHYLNAPHTHALENE	0.012	J	0.010	MDL	0.052	PQL	ug/L	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	0.25	J	0.052	MDL	1.0	PQL	ug/L	U	B
Di-n-butylphthalate	0.11	J	0.052	MDL	1.0	PQL	ug/L	J	Z
Di-n-octylphthalate	1.0	U	0.052	MDL	1.0	PQL	ug/L	UJ	L

Method Category: SVOA
Method: 8270D SIM **Matrix:** SO

Sample ID: SL-558-SA7-SB-0.0-0.5 **Collected:** 4/16/2013 2:35:00 **Analysis Type:** RES-BASE/NEUTRAL **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2-METHYLNAPHTHALENE	1.2	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
ANTHRACENE	0.36	J	0.34	MDL	1.7	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3 Subarea 7

Data Qualifier Summary

Lab Reporting Batch ID: PH032 **Laboratory: LL**

EDD Filename: PrepPH032 **eQAPP Name: CDM_SSFL_130621_Lan**

Method Category: **SVOA**

Method: **8270D SIM** ***Matrix:*** **SO**

Sample ID: **SL-558-SA7-SB-0.0-0.5** ***Collected:*** **4/16/2013 2:35:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(A)ANTHRACENE	1.4	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	1.2	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(K)FLUORANTHENE	1.1	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	14	J	6.1	MDL	18	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	0.90	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
NAPHTHALENE	1.6	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: **SL-559-SA7-SB-0.0-0.5** ***Collected:*** **4/16/2013 8:45:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **10**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(A)PYRENE	7.8	J	6.8	MDL	17	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	9.5	J	6.8	MDL	17	PQL	ug/Kg	J	Z
FLUORANTHENE	9.1	J	6.8	MDL	17	PQL	ug/Kg	J	Z
PHENANTHRENE	8.2	J	6.8	MDL	17	PQL	ug/Kg	J	Z
PYRENE	11	J	6.8	MDL	17	PQL	ug/Kg	J	Z

Sample ID: **SL-559-SA7-SB-2.0-3.0** ***Collected:*** **4/16/2013 9:25:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **10**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACENAPHTHENE	7.8	J	7.0	MDL	17	PQL	ug/Kg	J	Z
ACENAPHTHYLENE	9.2	J	3.5	MDL	17	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	78	J	63	MDL	190	PQL	ug/Kg	J	Z
CHRYSENE	14	J	3.5	MDL	17	PQL	ug/Kg	J	Z
PHENANTHRENE	16	J	7.0	MDL	17	PQL	ug/Kg	J	Z

Sample ID: **SL-560-SA7-SB-0.0-0.5** ***Collected:*** **4/16/2013 10:20:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2-METHYLNAPHTHALENE	0.94	J	0.70	MDL	1.7	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	6.6	J	6.3	MDL	19	PQL	ug/Kg	J	Z
Di-n-butylphthalate	7.4	J	6.3	MDL	19	PQL	ug/Kg	J	Z
NAPHTHALENE	0.93	J	0.70	MDL	1.7	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: PH032 **Laboratory: LL**

EDD Filename: PrepPH032 **eQAPP Name: CDM_SSFL_130621_Lan**

Method Category: **SVOA**

Method: **8270D SIM** ***Matrix:*** **SO**

Sample ID: **SL-560-SA7-SB-3.0-4.0** ***Collected:*** **4/16/2013 11:05:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(B)FLUORANTHENE	1.3	J	0.75	MDL	1.9	PQL	ug/Kg	J	Z
PYRENE	1.2	J	0.75	MDL	1.9	PQL	ug/Kg	J	Z

Sample ID: **SL-561-SA7-SB-0.0-0.5** ***Collected:*** **4/16/2013 1:30:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1-METHYLNAPHTHALENE	1.2	J	0.69	MDL	1.7	PQL	ug/Kg	J	Z
ACENAPHTHYLENE	0.94	J	0.35	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	1.6	J	0.69	MDL	1.7	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	8.8	J	6.2	MDL	19	PQL	ug/Kg	J	Z
FLUORENE	1.0	J	0.69	MDL	1.7	PQL	ug/Kg	J	Z
INDENO(1,2,3-CD)PYRENE	1.1	J	0.69	MDL	1.7	PQL	ug/Kg	J	Z

Method Category: **VOA**

Method: **8260B** ***Matrix:*** **AQ**

Sample ID: **FB-041613** ***Collected:*** **4/16/2013 3:15:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CHLOROFORM	3	J	0.8	MDL	5	PQL	ug/L	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: PH032 **Laboratory: LL**

EDD Filename: PrepPH032 **eQAPP Name: CDM_SSFL_130621_Lan**

Reason Code Legend

Reason Code	*Description*
*XIII	Exceeded Calibration Range
A	Professional Judgment
B	Calibration Blank Contamination
B	Method Blank Contamination
E	Laboratory Control Precision
F	Equipment Blank Contamination
F	Field Blank Contamination
H	Sampling to Analysis Estimation
L	Laboratory Control Precision
L	Laboratory Control Spike Lower Estimation
L	Laboratory Control Spike Upper Estimation
Q	Matrix Spike Lower Estimation
Q	Matrix Spike Upper Estimation
S	Surrogate/Tracer Recovery Upper Estimation
Z	Reporting Limit Trace Value

* denotes a non-reportable result

Enclosure I

Level III ADR Outliers
(including Manual Review Outliers)

Quality Control Outlier Reports

PH032

QC Outlier Report: HoldingTimes

Lab Reporting Batch ID: PH032 **Laboratory: LL**
EDD Filename: PrepPH032 **eQAPP Name: CDM_SSFL_130621_Lan**

Method: 8015C **Preparation Method: Gen Prep**
Matrix: AQ

Sample ID	Type	Actual	Criteria	Units	Flag
FB-041613 (REA)	Sampling To Analysis	8.00	7.00	DAYS	J (all detects)
FB-041613 (REA)		8.00	7.00	DAYS	UJ (all non-detects)
FB-041613MS (RES)		8.00	7.00	DAYS	
FB-041613MS (RES)		8.00	7.00	DAYS	
FB-041613MSD (RES)		8.00	7.00	DAYS	
FB-041613MSD (RES)		8.00	7.00	DAYS	

Method Blank Outlier Report

Lab Reporting Batch ID: PH032 **Laboratory: LL**

EDD Filename: PrepPH032 **eQAPP Name: CDM_SSFL_130621_Lan**

Method: **1613B**
Matrix: **AQ**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
BLK1120B372247	4/23/2013 10:47:00 PM	1,2,3,4,6,7,8-HPCDD	0.304 pg/L	FB-041613
		1,2,3,4,6,7,8-HPCDF	0.268 pg/L	
		1,2,3,4,7,8,9-HPCDF	0.249 pg/L	
		1,2,3,6,7,8-HXCDD	0.209 pg/L	
		1,2,3,6,7,8-HXCDF	0.192 pg/L	
		1,2,3,7,8,9-HXCDD	0.143 pg/L	
		1,2,3,7,8,9-HXCDF	0.213 pg/L	
		1,2,3,7,8-PECDD	0.478 pg/L	
		1,2,3,7,8-PECDF	0.459 pg/L	
		2,3,4,6,7,8-HXCDF	0.148 pg/L	
		2,3,4,7,8-PECDF	0.221 pg/L	
		OCDD	0.400 pg/L	
		OCDF	0.832 pg/L	

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
FB-041613(RES)	1,2,3,4,6,7,8-HPCDD	0.309 pg/L	0.309U pg/L
FB-041613(RES)	1,2,3,4,6,7,8-HPCDF	0.314 pg/L	0.314U pg/L
FB-041613(RES)	1,2,3,7,8,9-HXCDF	0.241 pg/L	0.241U pg/L
FB-041613(RES)	1,2,3,7,8-PECDD	0.434 pg/L	0.434U pg/L
FB-041613(RES)	1,2,3,7,8-PECDF	0.324 pg/L	0.324U pg/L
FB-041613(RES)	2,3,4,6,7,8-HXCDF	0.284 pg/L	0.284U pg/L
FB-041613(RES)	2,3,4,7,8-PECDF	0.429 pg/L	0.429U pg/L
FB-041613(RES)	OCDD	0.838 pg/L	0.838U pg/L
FB-041613(RES)	OCDF	0.357 pg/L	0.357U pg/L

Method: **1613B**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
BLK1070B371837	4/18/2013 6:37:00 PM	1,2,3,4,6,7,8-HPCDD	0.0818 ng/Kg	SL-558-SA7-SB-0.0-0.5
		1,2,3,4,6,7,8-HPCDF	0.0623 ng/Kg	SL-559-SA7-SB-0.0-0.5
		1,2,3,4,7,8,9-HPCDF	0.0596 ng/Kg	SL-559-SA7-SB-2.0-3.0
		1,2,3,4,7,8-HxCDD	0.0185 ng/Kg	SL-560-SA7-SB-0.0-0.5
		1,2,3,4,7,8-HXCDF	0.0425 ng/Kg	SL-560-SA7-SB-3.0-4.0
		1,2,3,6,7,8-HXCDD	0.0275 ng/Kg	SL-561-SA7-SB-0.0-0.5
		1,2,3,6,7,8-HXCDF	0.0316 ng/Kg	
		1,2,3,7,8,9-HXCDD	0.0437 ng/Kg	
		1,2,3,7,8,9-HXCDF	0.0663 ng/Kg	
		1,2,3,7,8-PECDD	0.0350 ng/Kg	
		1,2,3,7,8-PECDF	0.0538 ng/Kg	
		2,3,4,6,7,8-HXCDF	0.0359 ng/Kg	
		2,3,4,7,8-PECDF	0.0482 ng/Kg	
		OCDD	0.151 ng/Kg	
		OCDF	0.164 ng/Kg	

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-559-SA7-SB-2.0-3.0(RES)	1,2,3,7,8,9-HXCDF	0.235 ng/Kg	0.235U ng/Kg
SL-560-SA7-SB-3.0-4.0(RES)	1,2,3,4,6,7,8-HPCDF	0.129 ng/Kg	0.129U ng/Kg
SL-560-SA7-SB-3.0-4.0(RES)	1,2,3,4,7,8,9-HPCDF	0.125 ng/Kg	0.125U ng/Kg

Method Blank Outlier Report

Lab Reporting Batch ID: PH032 **Laboratory: LL**

EDD Filename: PrepPH032 **eQAPP Name: CDM_SSFL_130621_Lan**

Method: **1613B**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-560-SA7-SB-3.0-4.0(RES)	1,2,3,4,7,8-HXCDF	0.157 ng/Kg	0.157U ng/Kg
SL-560-SA7-SB-3.0-4.0(RES)	1,2,3,6,7,8-HXCDF	0.0911 ng/Kg	0.0911U ng/Kg
SL-560-SA7-SB-3.0-4.0(RES)	2,3,4,6,7,8-HXCDF	0.0801 ng/Kg	0.0801U ng/Kg
SL-560-SA7-SB-3.0-4.0(RES)	2,3,4,7,8-PECDF	0.179 ng/Kg	0.179U ng/Kg
SL-560-SA7-SB-3.0-4.0(RES)	OCDF	0.373 ng/Kg	0.373U ng/Kg

Method: **6010C**
Matrix: **AQ**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P11435AB221838	4/26/2013 6:38:00 PM	COPPER	0.0024 mg/L	FB-041613

Method: **6010C**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P10737AB221907	4/21/2013 7:07:00 PM	MAGNESIUM PHOSPHORUS TIN	1.82 mg/Kg 10.9 mg/Kg 1.40 mg/Kg	SL-558-SA7-SB-0.0-0.5 SL-559-SA7-SB-0.0-0.5 SL-559-SA7-SB-2.0-3.0 SL-560-SA7-SB-0.0-0.5 SL-560-SA7-SB-3.0-4.0 SL-561-SA7-SB-0.0-0.5

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-558-SA7-SB-0.0-0.5(RES/TOT)	TIN	2.26 mg/Kg	2.26U mg/Kg
SL-559-SA7-SB-0.0-0.5(RES/TOT)	TIN	2.89 mg/Kg	2.89U mg/Kg
SL-559-SA7-SB-2.0-3.0(RES/TOT)	TIN	2.50 mg/Kg	2.50U mg/Kg
SL-560-SA7-SB-0.0-0.5(RES/TOT)	TIN	2.60 mg/Kg	2.60U mg/Kg
SL-560-SA7-SB-3.0-4.0(RES/TOT)	TIN	2.88 mg/Kg	2.88U mg/Kg
SL-561-SA7-SB-0.0-0.5(RES/TOT)	TIN	2.88 mg/Kg	2.88U mg/Kg

Method: **8270D SIM**
Matrix: **AQ**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
PLKWH10B262132	4/28/2013 9:32:00 PM	BIS(2-ETHYLHEXYL)PHTHALATE	0.059 ug/L	FB-041613

Method Blank Outlier Report

Lab Reporting Batch ID: PH032 **Laboratory: LL**

EDD Filename: PrepPH032 **eQAPP Name: CDM_SSFL_130621_Lan**

Method: **8270D SIM**
Matrix: **AQ**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
FB-041613(RES)	BIS(2-ETHYLHEXYL)PHTHALATE	0.25 ug/L	1.0U ug/L

Equipment Rinsate Blank Outlier Report

Lab Reporting Batch ID: PH032 **Laboratory: LL**

EDD Filename: PrepPH032 **eQAPP Name: CDM_SSFL_130621_Lan**

Method: **6010C**
Matrix: **SO**

Equipment Blank Sample ID	Collected Date	Analyte	Result	Associated Samples
EB-041813(RES)	4/18/2013 3:00:00 PM	MOLYBDENUM	0.0036 mg/L	SL-558-SA7-SB-0.0-0.5 SL-559-SA7-SB-0.0-0.5 SL-559-SA7-SB-2.0-3.0 SL-560-SA7-SB-0.0-0.5 SL-560-SA7-SB-3.0-4.0 SL-561-SA7-SB-0.0-0.5

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-558-SA7-SB-0.0-0.5(RES/TOT)	MOLYBDENUM	0.229 mg/Kg	0.229U mg/Kg
SL-559-SA7-SB-0.0-0.5(RES/TOT)	MOLYBDENUM	0.327 mg/Kg	0.327U mg/Kg
SL-559-SA7-SB-2.0-3.0(RES/TOT)	MOLYBDENUM	0.397 mg/Kg	0.397U mg/Kg
SL-560-SA7-SB-0.0-0.5(RES/TOT)	MOLYBDENUM	0.216 mg/Kg	0.216U mg/Kg
SL-560-SA7-SB-3.0-4.0(RES/TOT)	MOLYBDENUM	0.360 mg/Kg	0.360U mg/Kg
SL-561-SA7-SB-0.0-0.5(RES/TOT)	MOLYBDENUM	0.501 mg/Kg	0.501U mg/Kg

Field Blank Outlier Report

Lab Reporting Batch ID: PH032 **Laboratory: LL**

EDD Filename: PrepPH032 **eQAPP Name: CDM_SSFL_130621_Lan**

Method: **6010C**
Matrix: **SO**

Field Blank Sample ID	Collected Date	Analyte	Result	Associated Samples
FB-041113(REA2)	4/11/2013 3:00:00 PM	COPPER MOLYBDENUM	0.0036 mg/L 0.0036 mg/L	SL-558-SA7-SB-0.0-0.5 SL-559-SA7-SB-0.0-0.5 SL-559-SA7-SB-2.0-3.0 SL-560-SA7-SB-0.0-0.5 SL-560-SA7-SB-3.0-4.0 SL-561-SA7-SB-0.0-0.5

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-558-SA7-SB-0.0-0.5(RES/TOT)	MOLYBDENUM	0.229 mg/Kg	0.229U mg/Kg
SL-559-SA7-SB-0.0-0.5(RES/TOT)	MOLYBDENUM	0.327 mg/Kg	0.327U mg/Kg
SL-559-SA7-SB-2.0-3.0(RES/TOT)	MOLYBDENUM	0.397 mg/Kg	0.397U mg/Kg
SL-560-SA7-SB-0.0-0.5(RES/TOT)	MOLYBDENUM	0.216 mg/Kg	0.216U mg/Kg
SL-560-SA7-SB-3.0-4.0(RES/TOT)	MOLYBDENUM	0.360 mg/Kg	0.360U mg/Kg
SL-561-SA7-SB-0.0-0.5(RES/TOT)	MOLYBDENUM	0.501 mg/Kg	0.501U mg/Kg

Surrogate Outlier Report

Lab Reporting Batch ID: PH032 **Laboratory: LL**

EDD Filename: PH032_v1 **eQAPP Name: CDM_SSFL_130621_Lan**

Method: **8082A**
Matrix: **AQ**

Sample ID (Analysis Type)	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
FB-041613	TETRACHLORO-M-XYLENE	126	45.00-120.00	All Target Analytes	J (all detects)

Method: **8082A**
Matrix: **SO**

Sample ID (Analysis Type)	Surrogate	Sample % Recovery	% Recovery Limits	Affected Compounds	Flag
SL-560-SA7-SB-3.0 -4.0	TETRACHLORO-M-XYLENE	124	45.00-120.00	All Target Analytes	J(all detects)

Lab Control Spike/Lab Control Spike Duplicate Outlier Report

Lab Reporting Batch ID: PH032 **Laboratory: LL**

EDD Filename: PH032_v1 **eQAPP Name: CDM_SSFL_130621_Lan**

Method: 8270D SIM
Matrix: AQ

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P7WHLCSQ262159 P7WHLCSY262226 (FB-041613)	Di-n-octylphthalate	53	56	57.00-145.00	-	Di-n-octylphthalate	J (all detects) UJ (all non-detects)

Method: 8270D
Matrix: AQ

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P7WILCSQ261540 P7WILCSY261607 (FB-041613)	4-NITROPHENOL	78	82	13.00-71.00	-	4-NITROPHENOL	J(all detects)
P7WILCSY261607 (FB-041613)	BENZOIC ACID	-	-	10.00-69.00	37 (30.00)	BENZOIC ACID	J(all detects) UJ(all non-detects)

Method: 8015M
Matrix: AQ

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P31075AY321420A (FB-041613)	EFH (C30-C40)	-	69	70.00-130.00	-	EFH (C30-C40)	J(all detects) UJ(all non-detects)

Method: 8151A
Matrix: AQ

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P31123AY241828A (FB-041613)	2,4,5-T	-	-	55.00-169.00	31 (30.00)	2,4,5-T	J(all detects) UJ(all non-detects)
	DALAPON	-	-	39.00-115.00	40 (30.00)	DALAPON	
	DICAMBA	-	-	55.00-163.00	31 (30.00)	DICAMBA	
	DICHLOROPROP	-	77	89.00-162.00	-	DICHLOROPROP	
	DINOSEB	-	-	16.00-163.00	34 (30.00)	DINOSEB	
	MCPP	-	-	46.00-173.00	36 (30.00)	MCPP	

Method: 8330A
Matrix: AQ

QC Sample ID (Associated Samples)	Compound	LCS %R	LCSD %R	%R Limits	RPD (Limits)	Affected Compounds	Flag
P31127AQ240811A P31127AY240854A (FB-041613)	2,6-DINITROTOLUENE	119	119	79.00-114.00	-	2,6-DINITROTOLUENE	J(all detects)
	4-AMINO-2,6-DINITROTOLUENE	128	128	80.00-120.00	-	4-AMINO-2,6-DINITROTOLUEN	

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3 Subarea 7

Reporting Limit Outliers

Lab Reporting Batch ID: PH032 **Laboratory: LL**

EDD Filename: PH032_v1 **eQAPP Name: CDM_SSFL_130621_Lan**

Method: 1613B

Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
FB-041613	1,2,3,4,6,7,8-HPCDD	JBQ	0.309	9.71	PQL	pg/L	J (all detects)
	1,2,3,4,6,7,8-HPCDF	JBQ	0.314	9.71	PQL	pg/L	
	1,2,3,4,7,8-HXCDF	J	0.257	9.71	PQL	pg/L	
	1,2,3,7,8,9-HXCDF	JBQ	0.241	9.71	PQL	pg/L	
	1,2,3,7,8-PECDD	JBQ	0.434	9.71	PQL	pg/L	
	1,2,3,7,8-PECDF	JB	0.324	9.71	PQL	pg/L	
	2,3,4,6,7,8-HXCDF	JBQ	0.284	9.71	PQL	pg/L	
	2,3,4,7,8-PECDF	JBQ	0.429	9.71	PQL	pg/L	
	OCDD	JBQ	0.838	19.4	PQL	pg/L	
	OCDF	JBQ	0.357	19.4	PQL	pg/L	

Method: 6010C

Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
FB-041613	MOLYBDENUM	J	0.0132	0.0200	PQL	mg/L	J (all detects)
	TIN	J	0.0029	0.0400	PQL	mg/L	

Method: 8260B

Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
FB-041613	CHLOROFORM	J	3	5	PQL	ug/L	J (all detects)

Method: 8270D SIM

Matrix: AQ

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
FB-041613	2-METHYLNAPHTHALENE	J	0.012	0.052	PQL	ug/L	J (all detects)
	BIS(2-ETHYLHEXYL)PHTHALATE	J	0.25	1.0	PQL	ug/L	
	Di-n-butylphthalate	J	0.11	1.0	PQL	ug/L	

Reporting Limit Outliers

Lab Reporting Batch ID: PH032 **Laboratory: LL**

EDD Filename: PH032_v1 **eQAPP Name: CDM_SSFL_130621_Lan**

Method: **1613B**

Matrix: **SO**

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-558-SA7-SB-0.0-0.5	1,2,3,4,7,8-HXCDF	JB	2.04	5.02	PQL	ng/Kg	J (all detects)
	1,2,3,6,7,8-HXCDF	JB	1.93	5.02	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JB	1.96	5.02	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JB	0.320	5.02	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JB	3.03	5.02	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.317	5.02	PQL	ng/Kg	
	2,3,7,8-TCDD	J	0.148	1.00	PQL	ng/Kg	
	2,3,7,8-TCDF	J	0.138	1.00	PQL	ng/Kg	
SL-559-SA7-SB-0.0-0.5	1,2,3,4,7,8,9-HPCDF	JBQ	1.13	5.12	PQL	ng/Kg	J (all detects)
	1,2,3,4,7,8-HxCDD	JB	1.34	5.12	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JB	0.794	5.12	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JB	3.90	5.12	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	0.689	5.12	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JB	2.68	5.12	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JB	0.351	5.12	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JB	0.713	5.12	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JBQ	1.09	5.12	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JB	0.818	5.12	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	0.869	5.12	PQL	ng/Kg	
	2,3,7,8-TCDF	J	0.318	1.02	PQL	ng/Kg	
SL-559-SA7-SB-2.0-3.0	1,2,3,4,7,8,9-HPCDF	JB	0.479	5.18	PQL	ng/Kg	J (all detects)
	1,2,3,4,7,8-HxCDD	JB	0.462	5.18	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JB	0.399	5.18	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JB	1.49	5.18	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JBQ	0.368	5.18	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JBQ	1.07	5.18	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JB	0.235	5.18	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JBQ	0.255	5.18	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JB	1.08	5.18	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JB	0.361	5.18	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	0.452	5.18	PQL	ng/Kg	
	2,3,7,8-TCDF	JQ	0.0699	1.04	PQL	ng/Kg	
SL-560-SA7-SB-0.0-0.5	1,2,3,4,7,8,9-HPCDF	JBQ	2.05	5.04	PQL	ng/Kg	J (all detects)
	1,2,3,4,7,8-HxCDD	JB	1.65	5.04	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JB	0.856	5.04	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	0.830	5.04	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JB	4.01	5.04	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JB	0.355	5.04	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JB	0.937	5.04	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JB	0.495	5.04	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JB	1.20	5.04	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	0.450	5.04	PQL	ng/Kg	
	2,3,7,8-TCDD	J	0.105	1.01	PQL	ng/Kg	
	2,3,7,8-TCDF	JQ	0.191	1.01	PQL	ng/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: PH032 **Laboratory: LL**

EDD Filename: PH032_v1 **eQAPP Name: CDM_SSFL_130621_Lan**

Method: 1613B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-560-SA7-SB-3.0-4.0	1,2,3,4,6,7,8-HPCDD	JBQ	1.26	5.58	PQL	ng/Kg	J (all detects)
	1,2,3,4,6,7,8-HPCDF	JB	0.129	5.58	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JB	0.125	5.58	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JB	0.0961	5.58	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JB	0.157	5.58	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JBQ	0.205	5.58	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	0.0911	5.58	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JBQ	0.262	5.58	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JBQ	0.439	5.58	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JBQ	0.235	5.58	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JB	0.309	5.58	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JB	0.0801	5.58	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.179	5.58	PQL	ng/Kg	
	2,3,7,8-TCDD	JQ	0.0801	1.12	PQL	ng/Kg	
	2,3,7,8-TCDF	JQ	0.0392	1.12	PQL	ng/Kg	
	OCDD	JB	10.7	11.2	PQL	ng/Kg	
	OCDF	JBQ	0.373	11.2	PQL	ng/Kg	
SL-561-SA7-SB-0.0-0.5	1,2,3,4,7,8,9-HPCDF	JB	2.07	5.20	PQL	ng/Kg	J (all detects)
	1,2,3,4,7,8-HxCDD	JB	0.897	5.20	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JB	1.83	5.20	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JB	4.00	5.20	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	1.49	5.20	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JB	1.82	5.20	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JB	1.07	5.20	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JB	0.448	5.20	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JB	0.860	5.20	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JB	1.59	5.20	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	1.08	5.20	PQL	ng/Kg	
	2,3,7,8-TCDF	J	0.507	1.04	PQL	ng/Kg	

Method: 6010C

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-558-SA7-SB-0.0-0.5	ANTIMONY	J	1.18	4.02	PQL	mg/Kg	J (all detects)
	ARSENIC	J	1.55	4.02	PQL	mg/Kg	
	BERYLLIUM	J	0.378	1.01	PQL	mg/Kg	
	BORON	J	3.37	10.1	PQL	mg/Kg	
	CADMIUM	J	0.651	1.01	PQL	mg/Kg	
	MOLYBDENUM	J	0.229	2.01	PQL	mg/Kg	
	SODIUM	J	77.4	101	PQL	mg/Kg	
	TIN	J	2.26	10.1	PQL	mg/Kg	
	Zirconium	J	1.32	5.03	PQL	mg/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: PH032 **Laboratory: LL**

EDD Filename: PH032_v1 **eQAPP Name: CDM_SSFL_130621_Lan**

Method: 6010C

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-559-SA7-SB-0.0-0.5	ANTIMONY	J	2.12	4.01	PQL	mg/Kg	J (all detects)
	ARSENIC	J	2.48	4.01	PQL	mg/Kg	
	BERYLLIUM	J	0.650	1.00	PQL	mg/Kg	
	BORON	J	3.07	10.0	PQL	mg/Kg	
	CADMIUM	J	0.469	1.00	PQL	mg/Kg	
	MOLYBDENUM	J	0.327	2.01	PQL	mg/Kg	
	SODIUM	J	82.6	100	PQL	mg/Kg	
	TIN	J	2.89	10.0	PQL	mg/Kg	
	Zirconium	J	1.39	5.01	PQL	mg/Kg	
SL-559-SA7-SB-2.0-3.0	ANTIMONY	J	2.08	4.13	PQL	mg/Kg	J (all detects)
	ARSENIC	J	3.18	4.13	PQL	mg/Kg	
	BERYLLIUM	J	0.673	1.03	PQL	mg/Kg	
	BORON	J	3.55	10.3	PQL	mg/Kg	
	CADMIUM	J	0.467	1.03	PQL	mg/Kg	
	MOLYBDENUM	J	0.397	2.06	PQL	mg/Kg	
	SODIUM	J	82.0	103	PQL	mg/Kg	
	TIN	J	2.50	10.3	PQL	mg/Kg	
	Zirconium	J	1.37	5.16	PQL	mg/Kg	
SL-560-SA7-SB-0.0-0.5	ANTIMONY	J	1.91	4.13	PQL	mg/Kg	J (all detects)
	ARSENIC	J	2.31	4.13	PQL	mg/Kg	
	BERYLLIUM	J	0.579	1.03	PQL	mg/Kg	
	BORON	J	4.59	10.3	PQL	mg/Kg	
	CADMIUM	J	0.445	1.03	PQL	mg/Kg	
	MOLYBDENUM	J	0.216	2.06	PQL	mg/Kg	
	SODIUM	J	99.7	103	PQL	mg/Kg	
	TIN	J	2.60	10.3	PQL	mg/Kg	
	Zirconium	J	0.971	5.16	PQL	mg/Kg	
SL-560-SA7-SB-3.0-4.0	ANTIMONY	J	2.55	4.40	PQL	mg/Kg	J (all detects)
	BERYLLIUM	J	1.01	1.10	PQL	mg/Kg	
	BORON	J	5.41	11.0	PQL	mg/Kg	
	CADMIUM	J	0.736	1.10	PQL	mg/Kg	
	MOLYBDENUM	J	0.360	2.20	PQL	mg/Kg	
	TIN	J	2.88	11.0	PQL	mg/Kg	
	Zirconium	J	4.08	5.50	PQL	mg/Kg	
SL-561-SA7-SB-0.0-0.5	ANTIMONY	J	1.73	4.04	PQL	mg/Kg	J (all detects)
	ARSENIC	J	2.59	4.04	PQL	mg/Kg	
	BERYLLIUM	J	0.562	1.01	PQL	mg/Kg	
	BORON	J	4.91	10.1	PQL	mg/Kg	
	CADMIUM	J	0.581	1.01	PQL	mg/Kg	
	MOLYBDENUM	J	0.501	2.02	PQL	mg/Kg	
	SODIUM	J	93.3	101	PQL	mg/Kg	
	TIN	J	2.88	10.1	PQL	mg/Kg	

Method: 6020A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-558-SA7-SB-0.0-0.5	SILVER	J	0.0267	0.201	PQL	mg/Kg	J (all detects)
	THALLIUM	J	0.138	0.201	PQL	mg/Kg	
SL-559-SA7-SB-0.0-0.5	SILVER	J	0.0648	0.201	PQL	mg/Kg	J (all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: PH032 **Laboratory: LL**

EDD Filename: PH032_v1 **eQAPP Name: CDM_SSFL_130621_Lan**

Method: 6020A
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-559-SA7-SB-2.0-3.0	SILVER	J	0.0625	0.206	PQL	mg/Kg	J (all detects)
SL-560-SA7-SB-0.0-0.5	SILVER	J	0.0303	0.206	PQL	mg/Kg	J (all detects)
SL-560-SA7-SB-3.0-4.0	SELENIUM SILVER	J J	0.161 0.0406	0.440 0.220	PQL PQL	mg/Kg mg/Kg	J (all detects)
SL-561-SA7-SB-0.0-0.5	SELENIUM SILVER	J J	0.140 0.0434	0.404 0.202	PQL PQL	mg/Kg mg/Kg	J (all detects)

Method: 7471B
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-558-SA7-SB-0.0-0.5	MERCURY	J	0.0181	0.0198	PQL	mg/Kg	J (all detects)
SL-559-SA7-SB-2.0-3.0	MERCURY	J	0.0172	0.0208	PQL	mg/Kg	J (all detects)
SL-560-SA7-SB-3.0-4.0	MERCURY	J	0.0183	0.0214	PQL	mg/Kg	J (all detects)

Method: 8015M
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-559-SA7-SB-2.0-3.0	EFH (C21-C30)	J	84	110	PQL	mg/Kg	J (all detects)
SL-560-SA7-SB-0.0-0.5	EFH (C15-C20)	J	3.0	5.3	PQL	mg/Kg	J (all detects)
SL-561-SA7-SB-0.0-0.5	EFH (C15-C20)	J	11	26	PQL	mg/Kg	J (all detects)

Method: 8082A
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-559-SA7-SB-0.0-0.5	AROCLOR 1254 Aroclor 5460	J J	13 17	17 34	PQL PQL	ug/Kg ug/Kg	J (all detects)
SL-559-SA7-SB-2.0-3.0	AROCLOR 1254 Aroclor 5460	J J	12 15	18 34	PQL PQL	ug/Kg ug/Kg	J (all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: PH032 **Laboratory: LL**

EDD Filename: PH032_v1 **eQAPP Name: CDM_SSFL_130621_Lan**

Method: **8270D SIM**

Matrix: **SO**

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-558-SA7-SB-0.0-0.5	2-METHYLNAPHTHALENE	J	1.2	1.7	PQL	ug/Kg	J (all detects)
	ANTHRACENE	J	0.36	1.7	PQL	ug/Kg	
	BENZO(A)ANTHRACENE	J	1.4	1.7	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	1.2	1.7	PQL	ug/Kg	
	BENZO(K)FLUORANTHENE	J	1.1	1.7	PQL	ug/Kg	
	BIS(2-ETHYLHEXYL)PHTHALATE	J	14	18	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	0.90	1.7	PQL	ug/Kg	
	NAPHTHALENE	J	1.6	1.7	PQL	ug/Kg	
SL-559-SA7-SB-0.0-0.5	BENZO(A)PYRENE	J	7.8	17	PQL	ug/Kg	J (all detects)
	BENZO(G,H,I)PERYLENE	J	9.5	17	PQL	ug/Kg	
	FLUORANTHENE	J	9.1	17	PQL	ug/Kg	
	PHENANTHRENE	J	8.2	17	PQL	ug/Kg	
	PYRENE	J	11	17	PQL	ug/Kg	
SL-559-SA7-SB-2.0-3.0	ACENAPHTHENE	J	7.8	17	PQL	ug/Kg	J (all detects)
	ACENAPHTHYLENE	J	9.2	17	PQL	ug/Kg	
	BIS(2-ETHYLHEXYL)PHTHALATE	J	78	190	PQL	ug/Kg	
	CHRYSENE	J	14	17	PQL	ug/Kg	
	PHENANTHRENE	J	16	17	PQL	ug/Kg	
SL-560-SA7-SB-0.0-0.5	2-METHYLNAPHTHALENE	J	0.94	1.7	PQL	ug/Kg	J (all detects)
	BIS(2-ETHYLHEXYL)PHTHALATE	J	6.6	19	PQL	ug/Kg	
	Di-n-butylphthalate	J	7.4	19	PQL	ug/Kg	
	NAPHTHALENE	J	0.93	1.7	PQL	ug/Kg	
SL-560-SA7-SB-3.0-4.0	BENZO(B)FLUORANTHENE	J	1.3	1.9	PQL	ug/Kg	J (all detects)
	PYRENE	J	1.2	1.9	PQL	ug/Kg	
SL-561-SA7-SB-0.0-0.5	1-METHYLNAPHTHALENE	J	1.2	1.7	PQL	ug/Kg	J (all detects)
	ACENAPHTHYLENE	J	0.94	1.7	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	1.6	1.7	PQL	ug/Kg	
	BIS(2-ETHYLHEXYL)PHTHALATE	J	8.8	19	PQL	ug/Kg	
	FLUORENE	J	1.0	1.7	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	1.1	1.7	PQL	ug/Kg	

LDC #: 29836F4 **VALIDATION COMPLETENESS WORKSHEET** Date: 6/11/13

SDG #: PH032 ADR Page: 1 of 1

Laboratory: Eurofins Lancaster Laboratories Reviewer: [illegible]

2nd Reviewer: [illegible]

METHOD: Metals (EPA SW 846 Method 6010C/6020A/7000)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 4/16/13
II.	ICP/MS Tune	–	
III.	Calibration	–	
IV.	Blanks	SW	
V.	ICP Interference Check Sample (ICS) Analysis	–	
VI.	Matrix Spike Analysis	N	MS/D (from PH030)
VII.	Duplicate Sample Analysis	N	D ↓
VIII.	Laboratory Control Samples (LCS)	A	LCS
IX.	Internal Standard (ICP-MS)	N	
X.	Furnace Atomic Absorption QC	N	
XI.	ICP Serial Dilution	A	
XII.	Sample Result Verification	N	
XIII.	Overall Assessment of Data	N	
XIV.	Field Duplicates	–	
XV	Field Blanks	SW	FB= FB-041113 (PH029) EB= EB-041813 (PH034) FB= 1

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples:

1	FB-041613	11		21		31	
2	SL-559-SA7-SB-0.0-0.5	12		22		32	
3	SL-559-SA7-SB-2.0-3.0	13		23		33	
4	SL-560-SA7-SB-0.0-0.5	14		24		34	
5	SL-560-SA7-SB-3.0-4.0	15		25		35	
6	SL-561-SA7-SB-0.0-0.5	16		26		36	
7	SL-558-SA7-SB-0.0-0.5	17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Notes:

LDC #: 29836F4

VALIDATION FINDINGS WORKSHEET
PB/ICB/CCB QUALIFIED SAMPLES

Page: 1 of 1
Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: Trace metals (EPA SW 864 Method 6010B/6020/7000) Soil preparation factor applied: 100x Reason: B

Sample Concentration units, unless otherwise noted: mg/Kg Associated Samples: All

Analyte	Maximum PB[a] (mg/Kg)	Maximum PB[a] (ug/L)	Maximum ICB/CCB[a] (ug/L)	Action Level	2	3	4	5	6	7			
Mo			2.8	1.4	0.33	0.40	0.22	0.36	0.50	0.23			

Sample Concentration units, unless otherwise noted: ug/L Associated Samples: All Water

Analyte	Maximum PB[a] (mg/Kg)	Maximum PB[a] (ug/L)	Maximum ICB/CCB[a] (ug/L)	Action Level	1								
Mo			4.6	0.023	0.0132								

Samples with analyte concentrations within five times the associated ICB, CCB or PB concentration are listed above with the identifications from the Validation Completeness Worksheet. These sample results were qualified as not detected, "U".
Note : a - The listed analyte concentration is the highest ICB, CCB, or PB detected in the analysis of each element.

LDC #: 29836F4

VALIDATION FINDINGS WORKSHEET
Field Blanks

Page: 1 of 1
Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: Trace Metals (EPA SW846 6010B/7000)

Blank units: mg/L **Associated sample units:** mg/Kg Reason: F
Sampling date: EB=4/18/13 FB=4/11/13 Soil factor applied 100x
Field blank type: (circle one) Field Blank / Rinsate / Other: Associated Samples: All Soil

Analyte	Blank ID	Blank ID	Sample Identification										
	EB-041813	FB-041113	Action Limit	2	3	4	5	6	7				
Cu		0.0036	1.8										
Mo	0.0036	0.0036	1.8	0.33	0.40	0.22	0.36	0.50	0.23				
Sr	0.000028		0.014										

Sampling date: 4/16/13 Soil factor applied 100x
Field blank type: (circle one) Field Blank / Rinsate / Other: Associated Samples: None

Analyte	Blank ID	Sample Identification											
	FB-041613	Action Limit											
Mo	0.0132	6.6											
Sn	0.0029	1.45											

CIRCLED RESULTS WERE NOT QUALIFIED. ALL RESULTS NOT CIRCLED WERE QUALIFIED BY THE FOLLOWING STATEMENT:
Samples with analyte concentrations within five times the associated field blank concentration are listed above, these sample results were qualified as not detected, "U".

Attachment I

Sample ID Cross Reference and Data Review Level

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
17-Apr-2013	TB-041713	7026475	TB	5030B	8015M	III
17-Apr-2013	SL-558-SA7-SB-3.0-4.0	7026476	N	3050B	6010C	III
17-Apr-2013	SL-558-SA7-SB-3.0-4.0	7026476	N	3050B	6020A	III
17-Apr-2013	SL-558-SA7-SB-3.0-4.0	7026476	N	3546	8015M	III
17-Apr-2013	SL-558-SA7-SB-3.0-4.0	7026476	N	3546	8082A	III
17-Apr-2013	SL-558-SA7-SB-3.0-4.0	7026476	N	3546	8270D SIM	III
17-Apr-2013	SL-558-SA7-SB-3.0-4.0	7026476	N	5035A	8015M	III
17-Apr-2013	SL-558-SA7-SB-3.0-4.0	7026476	N	METHOD	1613B	III
17-Apr-2013	SL-558-SA7-SB-3.0-4.0	7026476	N	METHOD	7471B	III
17-Apr-2013	SL-558-SA7-SB-3.0-4.0DUP	P026476D220710	DUP	METHOD	7471B	III
17-Apr-2013	SL-558-SA7-SB-3.0-4.0MSD	P026476M220714	MSD	METHOD	7471B	III
17-Apr-2013	SL-558-SA7-SB-3.0-4.0MSD	P026476M262344	MSD	3546	8270D SIM	III
17-Apr-2013	SL-558-SA7-SB-3.0-4.0MS	P026476R220712	MS	METHOD	7471B	III
17-Apr-2013	SL-558-SA7-SB-3.0-4.0MS	P026476R262313	MS	3546	8270D SIM	III
17-Apr-2013	SL-557-SA7-SB-0.0-0.5	7026477	N	3050B	6010C	III
17-Apr-2013	SL-557-SA7-SB-0.0-0.5	7026477	N	3050B	6020A	III
17-Apr-2013	SL-557-SA7-SB-0.0-0.5	7026477	N	3546	8015M	III
17-Apr-2013	SL-557-SA7-SB-0.0-0.5	7026477	N	3546	8082A	III
17-Apr-2013	SL-557-SA7-SB-0.0-0.5	7026477	N	3546	8270D SIM	III
17-Apr-2013	SL-557-SA7-SB-0.0-0.5	7026477	N	METHOD	1613B	III
17-Apr-2013	SL-557-SA7-SB-0.0-0.5	7026477	N	METHOD	7471B	III
17-Apr-2013	SL-505-SA7-SB-0.0-0.5	7026478	N	3050B	6010C	III
17-Apr-2013	SL-505-SA7-SB-0.0-0.5	7026478	N	3050B	6020A	III
17-Apr-2013	SL-505-SA7-SB-0.0-0.5	7026478	N	3546	8015M	III
17-Apr-2013	SL-505-SA7-SB-0.0-0.5	7026478	N	3546	8082A	III
17-Apr-2013	SL-505-SA7-SB-0.0-0.5	7026478	N	3546	8270D SIM	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
17-Apr-2013	SL-505-SA7-SB-0.0-0.5	7026478	N	METHOD	1613B	III
17-Apr-2013	SL-505-SA7-SB-0.0-0.5	7026478	N	METHOD	7471B	III
17-Apr-2013	SL-502-SA7-SB-0.0-0.5	7026479	N	3050B	6010C	III
17-Apr-2013	SL-502-SA7-SB-0.0-0.5	7026479	N	3050B	6020A	III
17-Apr-2013	SL-502-SA7-SB-0.0-0.5	7026479	N	3546	8015M	III
17-Apr-2013	SL-502-SA7-SB-0.0-0.5	7026479	N	3546	8082A	III
17-Apr-2013	SL-502-SA7-SB-0.0-0.5	7026479	N	3546	8270D SIM	III
17-Apr-2013	SL-502-SA7-SB-0.0-0.5	7026479	N	METHOD	1613B	III
17-Apr-2013	SL-502-SA7-SB-0.0-0.5	7026479	N	METHOD	7471B	III
17-Apr-2013	SL-501-SA7-SB-0.0-0.5	7026480	N	3050B	6010C	III
17-Apr-2013	SL-501-SA7-SB-0.0-0.5	7026480	N	3050B	6020A	III
17-Apr-2013	SL-501-SA7-SB-0.0-0.5	7026480	N	3546	8015M	III
17-Apr-2013	SL-501-SA7-SB-0.0-0.5	7026480	N	3546	8082A	III
17-Apr-2013	SL-501-SA7-SB-0.0-0.5	7026480	N	3546	8270D SIM	III
17-Apr-2013	SL-501-SA7-SB-0.0-0.5	7026480	N	METHOD	1613B	III
17-Apr-2013	SL-501-SA7-SB-0.0-0.5	7026480	N	METHOD	7471B	III
17-Apr-2013	SL-500-SA7-SB-0.0-0.5	7026481	N	3050B	6010C	III
17-Apr-2013	SL-500-SA7-SB-0.0-0.5	7026481	N	3050B	6020A	III
17-Apr-2013	SL-500-SA7-SB-0.0-0.5	7026481	N	3546	8015M	III
17-Apr-2013	SL-500-SA7-SB-0.0-0.5	7026481	N	3546	8082A	III
17-Apr-2013	SL-500-SA7-SB-0.0-0.5	7026481	N	3546	8270D SIM	III
17-Apr-2013	SL-500-SA7-SB-0.0-0.5	7026481	N	METHOD	1613B	III
17-Apr-2013	SL-500-SA7-SB-0.0-0.5	7026481	N	METHOD	7471B	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Attachment II

Overall Data Qualification Summary

Data Qualifier Summary

Lab Reporting Batch ID: PH033 **Laboratory: LL**

EDD Filename: PrepPH033 **eQAPP Name: CDM_SSFL_130621_Lan**

Method Category: **METALS**

Method: **6010C** ***Matrix:*** **SO**

Sample ID: **SL-500-SA7-SB-0.0-0.5** ***Collected:*** **4/17/2013 2:45:00** ***Analysis Type:*** **RES/TOT** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	3.97	U	0.496	MDL	3.97	PQL	mg/Kg	UJ	Q
BERYLLIUM	0.466	J	0.0665	MDL	0.993	PQL	mg/Kg	J	Z
BORON	4.56	J	0.824	MDL	9.93	PQL	mg/Kg	U	B
CADMIUM	0.165	J	0.0328	MDL	0.993	PQL	mg/Kg	J	Z
LEAD	11.0		0.467	MDL	2.98	PQL	mg/Kg	J	Q, E, E
MOLYBDENUM	0.257	J	0.169	MDL	1.99	PQL	mg/Kg	U	F, F
POTASSIUM	2330		13.4	MDL	99.3	PQL	mg/Kg	J	Q
TIN	3.07	J	0.218	MDL	9.93	PQL	mg/Kg	U	B
Zirconium	2.35	J	0.824	MDL	4.96	PQL	mg/Kg	J	Z

Sample ID: **SL-501-SA7-SB-0.0-0.5** ***Collected:*** **4/17/2013 2:00:00** ***Analysis Type:*** **RES/TOT** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	3.99	U	0.498	MDL	3.99	PQL	mg/Kg	UJ	Q
BERYLLIUM	0.551	J	0.0668	MDL	0.996	PQL	mg/Kg	J	Z
BORON	4.03	J	0.827	MDL	9.96	PQL	mg/Kg	U	B
CADMIUM	0.239	J	0.0329	MDL	0.996	PQL	mg/Kg	J	Z
LEAD	10.1		0.468	MDL	2.99	PQL	mg/Kg	J	Q, E, E
MOLYBDENUM	0.336	J	0.169	MDL	1.99	PQL	mg/Kg	U	F, F
POTASSIUM	3490		13.5	MDL	99.6	PQL	mg/Kg	J	Q
SODIUM	84.1	J	16.6	MDL	99.6	PQL	mg/Kg	J	Z
TIN	2.94	J	0.219	MDL	9.96	PQL	mg/Kg	U	B
Zirconium	3.15	J	0.827	MDL	4.98	PQL	mg/Kg	J	Z

Sample ID: **SL-502-SA7-SB-0.0-0.5** ***Collected:*** **4/17/2013 1:25:00** ***Analysis Type:*** **RES/TOT** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.580	J	0.512	MDL	4.10	PQL	mg/Kg	J	Z, Q
BERYLLIUM	0.695	J	0.0686	MDL	1.02	PQL	mg/Kg	J	Z
BORON	3.38	J	0.850	MDL	10.2	PQL	mg/Kg	U	B
CADMIUM	0.204	J	0.0338	MDL	1.02	PQL	mg/Kg	J	Z
LEAD	21.7		0.481	MDL	3.07	PQL	mg/Kg	J	Q, E, E
MOLYBDENUM	0.404	J	0.174	MDL	2.05	PQL	mg/Kg	U	F, F
POTASSIUM	4190		13.8	MDL	102	PQL	mg/Kg	J	Q
SODIUM	87.1	J	17.1	MDL	102	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3 Subarea 7

Data Qualifier Summary

Lab Reporting Batch ID: PH033 **Laboratory: LL**

EDD Filename: PrepPH033 **eQAPP Name: CDM_SSFL_130621_Lan**

Method Category: METALS

Method: 6010C **Matrix:** SO

Sample ID: SL-502-SA7-SB-0.0-0.5 **Collected:** 4/17/2013 1:25:00 **Analysis Type:** RES/TOT **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TIN	3.62	J	0.225	MDL	10.2	PQL	mg/Kg	U	B
Zirconium	3.53	J	0.850	MDL	5.12	PQL	mg/Kg	J	Z

Sample ID: SL-505-SA7-SB-0.0-0.5 **Collected:** 4/17/2013 11:10:00 **Analysis Type:** RES/TOT **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	4.12	U	0.515	MDL	4.12	PQL	mg/Kg	UJ	Q
BERYLLIUM	0.514	J	0.0690	MDL	1.03	PQL	mg/Kg	J	Z
BORON	4.25	J	0.855	MDL	10.3	PQL	mg/Kg	U	B
CADMIUM	0.174	J	0.0340	MDL	1.03	PQL	mg/Kg	J	Z
LEAD	11.3		0.484	MDL	3.09	PQL	mg/Kg	J	Q, E, E
MOLYBDENUM	0.309	J	0.175	MDL	2.06	PQL	mg/Kg	U	F, F
POTASSIUM	3990		13.9	MDL	103	PQL	mg/Kg	J	Q
SODIUM	79.4	J	17.2	MDL	103	PQL	mg/Kg	J	Z
TIN	3.15	J	0.227	MDL	10.3	PQL	mg/Kg	U	B
Zirconium	2.44	J	0.855	MDL	5.15	PQL	mg/Kg	J	Z

Sample ID: SL-557-SA7-SB-0.0-0.5 **Collected:** 4/17/2013 9:40:00 **Analysis Type:** RES/TOT **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.592	J	0.523	MDL	4.18	PQL	mg/Kg	J	Z, Q
BERYLLIUM	0.740	J	0.0701	MDL	1.05	PQL	mg/Kg	J	Z
BORON	3.19	J	0.868	MDL	10.5	PQL	mg/Kg	U	B
CADMIUM	0.0858	J	0.0345	MDL	1.05	PQL	mg/Kg	J	Z
LEAD	7.50		0.492	MDL	3.14	PQL	mg/Kg	J	Q, E, E
MOLYBDENUM	0.240	J	0.178	MDL	2.09	PQL	mg/Kg	U	F, F
POTASSIUM	2300		14.1	MDL	105	PQL	mg/Kg	J	Q
SODIUM	80.6	J	17.5	MDL	105	PQL	mg/Kg	J	Z
TIN	3.34	J	0.230	MDL	10.5	PQL	mg/Kg	U	B
Zirconium	2.47	J	0.868	MDL	5.23	PQL	mg/Kg	J	Z

Sample ID: SL-558-SA7-SB-3.0-4.0 **Collected:** 4/17/2013 9:00:00 **Analysis Type:** RES/TOT **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	4.15	U	0.518	MDL	4.15	PQL	mg/Kg	UJ	Q

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3 Subarea 7

Data Qualifier Summary

Lab Reporting Batch ID: PH033 **Laboratory: LL**

EDD Filename: PrepPH033 **eQAPP Name: CDM_SSFL_130621_Lan**

Method Category: METALS
Method: 6010C **Matrix:** SO

Sample ID: SL-558-SA7-SB-3.0-4.0 **Collected:** 4/17/2013 9:00:00 **Analysis Type:** RES/TOT **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BERYLLIUM	0.573	J	0.0694	MDL	1.04	PQL	mg/Kg	J	Z
BORON	5.62	J	0.860	MDL	10.4	PQL	mg/Kg	U	B
CADMIUM	0.102	J	0.0342	MDL	1.04	PQL	mg/Kg	J	Z
LEAD	5.53		0.487	MDL	3.11	PQL	mg/Kg	J	Q, E, E
MOLYBDENUM	0.377	J	0.176	MDL	2.07	PQL	mg/Kg	U	F, F
POTASSIUM	3090		14.0	MDL	104	PQL	mg/Kg	J	Q
TIN	3.17	J	0.228	MDL	10.4	PQL	mg/Kg	U	B
Zirconium	2.38	J	0.860	MDL	5.18	PQL	mg/Kg	J	Z

Method Category: METALS
Method: 6020A **Matrix:** SO

Sample ID: SL-500-SA7-SB-0.0-0.5 **Collected:** 4/17/2013 2:45:00 **Analysis Type:** RES/TOT **Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SILVER	0.0356	J	0.0199	MDL	0.199	PQL	mg/Kg	J	Z
STRONTIUM	17.2		0.0338	MDL	0.397	PQL	mg/Kg	J	Q
THALLIUM	0.189	J	0.0298	MDL	0.199	PQL	mg/Kg	J	Z

Sample ID: SL-501-SA7-SB-0.0-0.5 **Collected:** 4/17/2013 2:00:00 **Analysis Type:** RES/TOT **Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SILVER	0.0465	J	0.0199	MDL	0.199	PQL	mg/Kg	J	Z
STRONTIUM	20.7		0.0339	MDL	0.399	PQL	mg/Kg	J	Q

Sample ID: SL-502-SA7-SB-0.0-0.5 **Collected:** 4/17/2013 1:25:00 **Analysis Type:** REA/TOT **Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.162	J	0.102	MDL	0.410	PQL	mg/Kg	J	Z

Sample ID: SL-502-SA7-SB-0.0-0.5 **Collected:** 4/17/2013 1:25:00 **Analysis Type:** RES/TOT **Dilution:** 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SILVER	0.0651	J	0.0205	MDL	0.205	PQL	mg/Kg	J	Z
STRONTIUM	22.3		0.0348	MDL	0.410	PQL	mg/Kg	J	Q

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3 Subarea 7

Data Qualifier Summary

Lab Reporting Batch ID: PH033 **Laboratory: LL**

EDD Filename: PrepPH033 **eQAPP Name: CDM_SSFL_130621_Lan**

Method Category: **METALS**

Method: **6020A** ***Matrix:*** **SO**

Sample ID: **SL-505-SA7-SB-0.0-0.5** ***Collected:*** **4/17/2013 11:10:00** ***Analysis Type:*** **REA/TOT** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.138	J	0.103	MDL	0.412	PQL	mg/Kg	J	Z

Sample ID: **SL-505-SA7-SB-0.0-0.5** ***Collected:*** **4/17/2013 11:10:00** ***Analysis Type:*** **RES/TOT** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SILVER	0.0450	J	0.0206	MDL	0.206	PQL	mg/Kg	J	Z
STRONTIUM	14.0		0.0350	MDL	0.412	PQL	mg/Kg	J	Q

Sample ID: **SL-557-SA7-SB-0.0-0.5** ***Collected:*** **4/17/2013 9:40:00** ***Analysis Type:*** **REA/TOT** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.202	J	0.105	MDL	0.418	PQL	mg/Kg	J	Z

Sample ID: **SL-557-SA7-SB-0.0-0.5** ***Collected:*** **4/17/2013 9:40:00** ***Analysis Type:*** **RES/TOT** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SILVER	0.0582	J	0.0209	MDL	0.209	PQL	mg/Kg	J	Z
STRONTIUM	12.1		0.0356	MDL	0.418	PQL	mg/Kg	J	Q

Sample ID: **SL-558-SA7-SB-3.0-4.0** ***Collected:*** **4/17/2013 9:00:00** ***Analysis Type:*** **REA/TOT** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.152	J	0.104	MDL	0.415	PQL	mg/Kg	J	Z

Sample ID: **SL-558-SA7-SB-3.0-4.0** ***Collected:*** **4/17/2013 9:00:00** ***Analysis Type:*** **RES/TOT** ***Dilution:*** **2**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SILVER	0.0854	J	0.0207	MDL	0.207	PQL	mg/Kg	J	Z
STRONTIUM	14.7		0.0352	MDL	0.415	PQL	mg/Kg	J	Q

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3 Subarea 7

Data Qualifier Summary

Lab Reporting Batch ID: PH033 **Laboratory: LL**

EDD Filename: PrepPH033 **eQAPP Name: CDM_SSFL_130621_Lan**

Method Category: METALS
Method: 7471B **Matrix:** SO

Sample ID: SL-500-SA7-SB-0.0-0.5 **Collected:** 4/17/2013 2:45:00 **Analysis Type:** RES/TOT **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0178	J	0.0099	MDL	0.0192	PQL	mg/Kg	J	Z

Sample ID: SL-502-SA7-SB-0.0-0.5 **Collected:** 4/17/2013 1:25:00 **Analysis Type:** RES/TOT **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0196	J	0.0104	MDL	0.0201	PQL	mg/Kg	J	Z

Method Category: SVOA
Method: 1613B **Matrix:** SO

Sample ID: SL-500-SA7-SB-0.0-0.5 **Collected:** 4/17/2013 2:45:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDF	2.82	JB	0.0246	MDL	5.00	PQL	ng/Kg	J	Z
1,2,3,4,7,8,9-HPCDF	0.343	JB	0.0324	MDL	5.00	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HxCDD	0.421	JB	0.0471	MDL	5.00	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HXCDF	0.949	JB	0.0352	MDL	5.00	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDD	0.688	JB	0.0450	MDL	5.00	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.307	JB	0.0337	MDL	5.00	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDD	0.437	JB	0.0432	MDL	5.00	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDD	0.184	JBQ	0.0323	MDL	5.00	PQL	ng/Kg	U	B
1,2,3,7,8-PECDF	0.520	JB	0.0260	MDL	5.00	PQL	ng/Kg	J	Z
2,3,4,6,7,8-HXCDF	0.392	JBQ	0.0315	MDL	5.00	PQL	ng/Kg	J	Z
2,3,4,7,8-PECDF	0.472	JBQ	0.0241	MDL	5.00	PQL	ng/Kg	J	Z
2,3,7,8-TCDD	0.0274	JQ	0.0246	MDL	1.00	PQL	ng/Kg	J	Z
2,3,7,8-TCDF	0.271	J	0.0404	MDL	1.00	PQL	ng/Kg	J	Z
OCDF	4.86	JB	0.0282	MDL	10.0	PQL	ng/Kg	J	Z

Sample ID: SL-501-SA7-SB-0.0-0.5 **Collected:** 4/17/2013 2:00:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	4.02	JB	0.0365	MDL	4.90	PQL	ng/Kg	J	Z
1,2,3,4,6,7,8-HPCDF	0.929	JB	0.0279	MDL	4.90	PQL	ng/Kg	J	Z
1,2,3,4,7,8,9-HPCDF	0.161	JB	0.0377	MDL	4.90	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HxCDD	0.241	JBQ	0.0434	MDL	4.90	PQL	ng/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: PH033 **Laboratory: LL**

EDD Filename: PrepPH033 **eQAPP Name: CDM_SSFL_130621_Lan**

Method Category: **SVOA**

Method: **1613B** ***Matrix:*** **SO**

Sample ID: **SL-501-SA7-SB-0.0-0.5** ***Collected:*** **4/17/2013 2:00:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,7,8-HXCDF	0.234	JBQ	0.0397	MDL	4.90	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDD	0.324	JB	0.0421	MDL	4.90	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.195	JB	0.0376	MDL	4.90	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDD	0.420	JB	0.0401	MDL	4.90	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.277	JB	0.0379	MDL	4.90	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDD	0.0848	JBQ	0.0364	MDL	4.90	PQL	ng/Kg	U	B
1,2,3,7,8-PECDF	0.360	JB	0.0265	MDL	4.90	PQL	ng/Kg	J	Z
2,3,4,6,7,8-HXCDF	0.242	JB	0.0361	MDL	4.90	PQL	ng/Kg	J	Z
2,3,4,7,8-PECDF	0.373	JBQ	0.0257	MDL	4.90	PQL	ng/Kg	J	Z
2,3,7,8-TCDF	0.0772	JQ	0.0481	MDL	0.981	PQL	ng/Kg	J	Z
OCDF	1.49	JB	0.0317	MDL	9.81	PQL	ng/Kg	J	Z

Sample ID: **SL-502-SA7-SB-0.0-0.5** ***Collected:*** **4/17/2013 1:25:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDF	3.89	JB	0.0238	MDL	5.08	PQL	ng/Kg	J	Z
1,2,3,4,7,8,9-HPCDF	0.448	JB	0.0304	MDL	5.08	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HxCDD	0.926	JB	0.0424	MDL	5.08	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HXCDF	0.788	JBQ	0.0336	MDL	5.08	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDD	1.00	JB	0.0419	MDL	5.08	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.525	JB	0.0313	MDL	5.08	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDD	0.746	JB	0.0404	MDL	5.08	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.232	JB	0.0359	MDL	5.08	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDD	0.277	JB	0.0414	MDL	5.08	PQL	ng/Kg	J	Z
1,2,3,7,8-PECDF	2.25	JB	0.0362	MDL	5.08	PQL	ng/Kg	J	Z
2,3,4,6,7,8-HXCDF	0.497	JB	0.0326	MDL	5.08	PQL	ng/Kg	J	Z
2,3,4,7,8-PECDF	0.984	JB	0.0341	MDL	5.08	PQL	ng/Kg	J	Z
2,3,7,8-TCDD	0.0442	JQ	0.0245	MDL	1.02	PQL	ng/Kg	J	Z
2,3,7,8-TCDF	0.653	J	0.0638	MDL	1.02	PQL	ng/Kg	J	Z
OCDF	7.16	JB	0.0274	MDL	10.2	PQL	ng/Kg	J	Z

Sample ID: **SL-505-SA7-SB-0.0-0.5** ***Collected:*** **4/17/2013 11:10:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	2000	BE	0.223	MDL	4.93	PQL	ng/Kg	J	*XIII

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3 Subarea 7

Data Qualifier Summary

Lab Reporting Batch ID: PH033 **Laboratory: LL**

EDD Filename: PrepPH033 **eQAPP Name: CDM_SSFL_130621_Lan**

Method Category: **SVOA**

Method: **1613B** ***Matrix:*** **SO**

Sample ID: **SL-505-SA7-SB-0.0-0.5** ***Collected:*** **4/17/2013 11:10:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,7,8-HxCDD	3660	BE	0.114	MDL	4.93	PQL	ng/Kg	J	*XIII
2,3,4,7,8-PECDF	2.54	JB	0.0458	MDL	4.93	PQL	ng/Kg	J	Z
OCDD	23100	BE	0.104	MDL	9.86	PQL	ng/Kg	J	*XIII

Sample ID: **SL-557-SA7-SB-0.0-0.5** ***Collected:*** **4/17/2013 9:40:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	3.42	JB	0.0293	MDL	5.18	PQL	ng/Kg	J	Z
1,2,3,4,6,7,8-HPCDF	0.576	JB	0.0126	MDL	5.18	PQL	ng/Kg	J	Z
1,2,3,4,7,8,9-HPCDF	0.0644	JB	0.0169	MDL	5.18	PQL	ng/Kg	U	B
1,2,3,4,7,8-HXCDF	0.0896	JB	0.0199	MDL	5.18	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	0.167	JB	0.0263	MDL	5.18	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.0717	JB	0.0196	MDL	5.18	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	0.142	JB	0.0244	MDL	5.18	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDF	0.0468	JB	0.0201	MDL	5.18	PQL	ng/Kg	U	B
1,2,3,7,8-PECDD	0.0514	JB	0.0229	MDL	5.18	PQL	ng/Kg	U	B
1,2,3,7,8-PECDF	0.133	JB	0.0160	MDL	5.18	PQL	ng/Kg	U	B
2,3,4,6,7,8-HXCDF	0.0959	JBQ	0.0189	MDL	5.18	PQL	ng/Kg	J	Z
2,3,4,7,8-PECDF	0.113	JB	0.0155	MDL	5.18	PQL	ng/Kg	U	B
2,3,7,8-TCDF	0.0749	J	0.0267	MDL	1.04	PQL	ng/Kg	J	Z
OCDF	1.34	JB	0.0324	MDL	10.4	PQL	ng/Kg	J	Z

Sample ID: **SL-558-SA7-SB-3.0-4.0** ***Collected:*** **4/17/2013 9:00:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDF	3.96	JB	0.0138	MDL	5.14	PQL	ng/Kg	J	Z
1,2,3,4,7,8,9-HPCDF	0.438	JB	0.0197	MDL	5.14	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HxCDD	0.400	JB	0.0350	MDL	5.14	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HXCDF	0.162	JBQ	0.0275	MDL	5.14	PQL	ng/Kg	U	B
1,2,3,6,7,8-HXCDD	2.48	JB	0.0358	MDL	5.14	PQL	ng/Kg	J	Z
1,2,3,6,7,8-HXCDF	0.115	JB	0.0259	MDL	5.14	PQL	ng/Kg	U	B
1,2,3,7,8,9-HXCDD	1.15	JB	0.0342	MDL	5.14	PQL	ng/Kg	J	Z
1,2,3,7,8,9-HXCDF	0.103	JB	0.0263	MDL	5.14	PQL	ng/Kg	U	B
1,2,3,7,8-PECDD	0.174	JB	0.0306	MDL	5.14	PQL	ng/Kg	U	B
1,2,3,7,8-PECDF	0.0704	JBQ	0.0131	MDL	5.14	PQL	ng/Kg	U	B

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3 Subarea 7

Data Qualifier Summary

Lab Reporting Batch ID: PH033 **Laboratory: LL**

EDD Filename: PrepPH033 **eQAPP Name: CDM_SSFL_130621_Lan**

Method Category: SVOA
Method: 1613B **Matrix:** SO

Sample ID: SL-558-SA7-SB-3.0-4.0 **Collected:** 4/17/2013 9:00:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,3,4,6,7,8-HXCDF	0.168	JB	0.0255	MDL	5.14	PQL	ng/Kg	J	Z
2,3,4,7,8-PECDF	0.0479	JBQ	0.0122	MDL	5.14	PQL	ng/Kg	U	B

Method Category: SVOA
Method: 8015M **Matrix:** SO

Sample ID: SL-502-SA7-SB-0.0-0.5 **Collected:** 4/17/2013 1:25:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C15-C20)	2.1	J	2.1	MDL	5.2	PQL	mg/Kg	J	Z

Sample ID: SL-505-SA7-SB-0.0-0.5 **Collected:** 4/17/2013 11:10:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
EFH (C15-C20)	2.3	J	2.1	MDL	5.1	PQL	mg/Kg	J	Z

Method Category: SVOA
Method: 8082A **Matrix:** SO

Sample ID: SL-502-SA7-SB-0.0-0.5 **Collected:** 4/17/2013 1:25:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Aroclor 5460	24	J	10	MDL	34	PQL	ug/Kg	J	Z

Method Category: SVOA
Method: 8270D SIM **Matrix:** SO

Sample ID: SL-500-SA7-SB-0.0-0.5 **Collected:** 4/17/2013 2:45:00 **Analysis Type:** RES-BASE/NEUTRAL **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(A)ANTHRACENE	0.90	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(A)PYRENE	1.2	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(G,H,I)PERYLENE	0.86	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	7.2	J	6.1	MDL	18	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: PH033 **Laboratory: LL**

EDD Filename: PrepPH033 **eQAPP Name: CDM_SSFL_130621_Lan**

Method Category: **SVOA**

Method: **8270D SIM** ***Matrix:*** **SO**

Sample ID: **SL-500-SA7-SB-0.0-0.5** ***Collected:*** **4/17/2013 2:45:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
INDENO(1,2,3-CD)PYRENE	0.84	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
PHENANTHRENE	1.1	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: **SL-501-SA7-SB-0.0-0.5** ***Collected:*** **4/17/2013 2:00:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTHRACENE	0.83	J	0.34	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(E)PYRENE	4.8	J	3.4	MDL	17	PQL	ug/Kg	J	Z
DIBENZO(A,H)ANTHRACENE	0.99	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: **SL-502-SA7-SB-0.0-0.5** ***Collected:*** **4/17/2013 1:25:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2-METHYLNAPHTHALENE	0.75	J	0.69	MDL	1.7	PQL	ug/Kg	J	Z
ANTHRACENE	0.92	J	0.34	MDL	1.7	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	12	J	6.2	MDL	19	PQL	ug/Kg	J	Z
NAPHTHALENE	1.2	J	0.69	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: **SL-505-SA7-SB-0.0-0.5** ***Collected:*** **4/17/2013 11:10:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1-METHYLNAPHTHALENE	0.98	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
2-METHYLNAPHTHALENE	1.6	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
ANTHRACENE	0.71	J	0.34	MDL	1.7	PQL	ug/Kg	J	Z
BENZO(E)PYRENE	5.4	J	3.4	MDL	17	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	13	J	6.2	MDL	18	PQL	ug/Kg	J	Z
DIBENZO(A,H)ANTHRACENE	1.3	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z
FLUORENE	1.4	J	0.68	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: **SL-557-SA7-SB-0.0-0.5** ***Collected:*** **4/17/2013 9:40:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZO(B)FLUORANTHENE	1.2	J	0.70	MDL	1.7	PQL	ug/Kg	J	Z
BIS(2-ETHYLHEXYL)PHTHALATE	7.3	J	6.3	MDL	19	PQL	ug/Kg	J	Z
CHRYSENE	0.97	J	0.35	MDL	1.7	PQL	ug/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3 Subarea 7

Data Qualifier Summary

Lab Reporting Batch ID: PH033 **Laboratory: LL**

EDD Filename: PrepPH033 **eQAPP Name: CDM_SSFL_130621_Lan**

Method Category: **SVOA**

Method: **8270D SIM** ***Matrix:*** **SO**

Sample ID: **SL-557-SA7-SB-0.0-0.5** ***Collected:*** **4/17/2013 9:40:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
FLUORANTHENE	1.3	J	0.70	MDL	1.7	PQL	ug/Kg	J	Z
NAPHTHALENE	0.70	J	0.70	MDL	1.7	PQL	ug/Kg	U	F
PHENANTHRENE	0.80	J	0.70	MDL	1.7	PQL	ug/Kg	J	Z
PYRENE	1.0	J	0.70	MDL	1.7	PQL	ug/Kg	J	Z

Sample ID: **SL-558-SA7-SB-3.0-4.0** ***Collected:*** **4/17/2013 9:00:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CHRYSENE	0.47	J	0.34	MDL	1.7	PQL	ug/Kg	J	Z
Di-n-butylphthalate	24		6.2	MDL	19	PQL	ug/Kg	J	Q, Q

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: PH033 **Laboratory: LL**

EDD Filename: PrepPH033 **eQAPP Name: CDM_SSFL_130621_Lan**

Reason Code Legend

Reason Code	*Description*
*XIII	Exceeded Calibration Range
A	Professional Judgment
B	Method Blank Contamination
E	Laboratory Duplicate Precision
E	Matrix Spike Precision
F	Equipment Blank Contamination
F	Field Blank Contamination
Q	Laboratory Duplicate Precision
Q	Matrix Spike Lower Estimation
Q	Matrix Spike Precision
Q	Matrix Spike Upper Estimation
S	Surrogate/Tracer Recovery Upper Estimation
Z	Reporting Limit Trace Value

* denotes a non-reportable result

Enclosure I

Level III ADR Outliers
(including Manual Review Outliers)

Quality Control Outlier Reports

PH033

Method Blank Outlier Report

Lab Reporting Batch ID: PH033 **Laboratory: LL**

EDD Filename: PrepPH033 **eQAPP Name: CDM_SSFL_130621_Lan**

Method: **1613B**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
BLK1090B371642	4/22/2013 4:42:00 PM	1,2,3,4,6,7,8-HPCDD	0.0607 ng/Kg	SL-500-SA7-SB-0.0-0.5
		1,2,3,4,6,7,8-HPCDF	0.0593 ng/Kg	SL-501-SA7-SB-0.0-0.5
		1,2,3,4,7,8,9-HPCDF	0.0303 ng/Kg	SL-502-SA7-SB-0.0-0.5
		1,2,3,4,7,8-HxCDD	0.0268 ng/Kg	SL-505-SA7-SB-0.0-0.5
		1,2,3,4,7,8-HXCDF	0.0414 ng/Kg	SL-557-SA7-SB-0.0-0.5
		1,2,3,6,7,8-HXCDD	0.0283 ng/Kg	SL-558-SA7-SB-3.0-4.0
		1,2,3,6,7,8-HXCDF	0.0288 ng/Kg	
		1,2,3,7,8,9-HXCDD	0.0385 ng/Kg	
		1,2,3,7,8,9-HXCDF	0.0430 ng/Kg	
		1,2,3,7,8-PECDD	0.0517 ng/Kg	
		1,2,3,7,8-PECDF	0.0627 ng/Kg	
		2,3,4,6,7,8-HXCDF	0.0179 ng/Kg	
		2,3,4,7,8-PECDF	0.0283 ng/Kg	
		OCDD	0.147 ng/Kg	
		OCDF	0.0804 ng/Kg	

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-500-SA7-SB-0.0-0.5(RES)	1,2,3,7,8-PECDD	0.184 ng/Kg	0.184U ng/Kg
SL-501-SA7-SB-0.0-0.5(RES)	1,2,3,7,8-PECDD	0.0848 ng/Kg	0.0848U ng/Kg
SL-557-SA7-SB-0.0-0.5(RES)	1,2,3,4,7,8,9-HPCDF	0.0644 ng/Kg	0.0644U ng/Kg
SL-557-SA7-SB-0.0-0.5(RES)	1,2,3,4,7,8-HXCDF	0.0896 ng/Kg	0.0896U ng/Kg
SL-557-SA7-SB-0.0-0.5(RES)	1,2,3,6,7,8-HXCDF	0.0717 ng/Kg	0.0717U ng/Kg
SL-557-SA7-SB-0.0-0.5(RES)	1,2,3,7,8,9-HXCDD	0.142 ng/Kg	0.142U ng/Kg
SL-557-SA7-SB-0.0-0.5(RES)	1,2,3,7,8,9-HXCDF	0.0468 ng/Kg	0.0468U ng/Kg
SL-557-SA7-SB-0.0-0.5(RES)	1,2,3,7,8-PECDD	0.0514 ng/Kg	0.0514U ng/Kg
SL-557-SA7-SB-0.0-0.5(RES)	1,2,3,7,8-PECDF	0.133 ng/Kg	0.133U ng/Kg
SL-557-SA7-SB-0.0-0.5(RES)	2,3,4,7,8-PECDF	0.113 ng/Kg	0.113U ng/Kg
SL-558-SA7-SB-3.0-4.0(RES)	1,2,3,4,7,8-HXCDF	0.162 ng/Kg	0.162U ng/Kg
SL-558-SA7-SB-3.0-4.0(RES)	1,2,3,6,7,8-HXCDF	0.115 ng/Kg	0.115U ng/Kg
SL-558-SA7-SB-3.0-4.0(RES)	1,2,3,7,8,9-HXCDF	0.103 ng/Kg	0.103U ng/Kg
SL-558-SA7-SB-3.0-4.0(RES)	1,2,3,7,8-PECDD	0.174 ng/Kg	0.174U ng/Kg
SL-558-SA7-SB-3.0-4.0(RES)	1,2,3,7,8-PECDF	0.0704 ng/Kg	0.0704U ng/Kg
SL-558-SA7-SB-3.0-4.0(RES)	2,3,4,7,8-PECDF	0.0479 ng/Kg	0.0479U ng/Kg

Method: **6010C**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P11537AB221818	4/28/2013 6:18:00 PM	ALUMINUM	10.3 mg/Kg	SL-500-SA7-SB-0.0-0.5
		BORON	1.62 mg/Kg	SL-501-SA7-SB-0.0-0.5
		CALCIUM	25.6 mg/Kg	SL-502-SA7-SB-0.0-0.5
		PHOSPHORUS	1.45 mg/Kg	SL-505-SA7-SB-0.0-0.5
		TIN	1.45 mg/Kg	SL-557-SA7-SB-0.0-0.5
				SL-558-SA7-SB-3.0-4.0

Method Blank Outlier Report

Lab Reporting Batch ID: PH033 **Laboratory: LL**

EDD Filename: PrepPH033 **eQAPP Name: CDM_SSFL_130621_Lan**

Method: **6010C**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-500-SA7-SB-0.0-0.5(RES/TOT)	BORON	4.56 mg/Kg	4.56U mg/Kg
SL-500-SA7-SB-0.0-0.5(RES/TOT)	TIN	3.07 mg/Kg	3.07U mg/Kg
SL-501-SA7-SB-0.0-0.5(RES/TOT)	BORON	4.03 mg/Kg	4.03U mg/Kg
SL-501-SA7-SB-0.0-0.5(RES/TOT)	TIN	2.94 mg/Kg	2.94U mg/Kg
SL-502-SA7-SB-0.0-0.5(RES/TOT)	BORON	3.38 mg/Kg	3.38U mg/Kg
SL-502-SA7-SB-0.0-0.5(RES/TOT)	TIN	3.62 mg/Kg	3.62U mg/Kg
SL-505-SA7-SB-0.0-0.5(RES/TOT)	BORON	4.25 mg/Kg	4.25U mg/Kg
SL-505-SA7-SB-0.0-0.5(RES/TOT)	TIN	3.15 mg/Kg	3.15U mg/Kg
SL-557-SA7-SB-0.0-0.5(RES/TOT)	BORON	3.19 mg/Kg	3.19U mg/Kg
SL-557-SA7-SB-0.0-0.5(RES/TOT)	TIN	3.34 mg/Kg	3.34U mg/Kg
SL-558-SA7-SB-3.0-4.0(RES/TOT)	BORON	5.62 mg/Kg	5.62U mg/Kg
SL-558-SA7-SB-3.0-4.0(RES/TOT)	TIN	3.17 mg/Kg	3.17U mg/Kg

Method: **6020A**
Matrix: **SO**

Method Blank Sample ID	Analysis Date	Analyte	Result	Associated Samples
P11537AB220821A	4/29/2013 8:21:00 AM	STRONTIUM	0.179 mg/Kg	SL-500-SA7-SB-0.0-0.5 SL-501-SA7-SB-0.0-0.5 SL-502-SA7-SB-0.0-0.5 SL-505-SA7-SB-0.0-0.5 SL-557-SA7-SB-0.0-0.5 SL-558-SA7-SB-3.0-4.0

Equipment Rinsate Blank Outlier Report

Lab Reporting Batch ID: PH033 **Laboratory: LL**

EDD Filename: PrepPH033 **eQAPP Name: CDM_SSFL_130621_Lan**

Method: **6010C**
Matrix: **SO**

Equipment Blank Sample ID	Collected Date	Analyte	Result	Associated Samples
EB-041813(RES)	4/18/2013 3:00:00 PM	MOLYBDENUM	0.0036 mg/L	SL-500-SA7-SB-0.0-0.5 SL-501-SA7-SB-0.0-0.5 SL-502-SA7-SB-0.0-0.5 SL-505-SA7-SB-0.0-0.5 SL-557-SA7-SB-0.0-0.5 SL-558-SA7-SB-3.0-4.0

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-500-SA7-SB-0.0-0.5(RES/TOT)	MOLYBDENUM	0.257 mg/Kg	0.257U mg/Kg
SL-501-SA7-SB-0.0-0.5(RES/TOT)	MOLYBDENUM	0.336 mg/Kg	0.336U mg/Kg
SL-502-SA7-SB-0.0-0.5(RES/TOT)	MOLYBDENUM	0.404 mg/Kg	0.404U mg/Kg
SL-505-SA7-SB-0.0-0.5(RES/TOT)	MOLYBDENUM	0.309 mg/Kg	0.309U mg/Kg
SL-557-SA7-SB-0.0-0.5(RES/TOT)	MOLYBDENUM	0.240 mg/Kg	0.240U mg/Kg
SL-558-SA7-SB-3.0-4.0(RES/TOT)	MOLYBDENUM	0.377 mg/Kg	0.377U mg/Kg

Field Blank Outlier Report

Lab Reporting Batch ID: PH033 **Laboratory: LL**

EDD Filename: PrepPH033 **eQAPP Name: CDM_SSFL_130621_Lan**

Method: **6010C**
Matrix: **SO**

Field Blank Sample ID	Collected Date	Analyte	Result	Associated Samples
FB-041113(REA2)	4/11/2013 3:00:00 PM	COPPER MOLYBDENUM	0.0036 mg/L 0.0036 mg/L	SL-500-SA7-SB-0.0-0.5 SL-501-SA7-SB-0.0-0.5 SL-502-SA7-SB-0.0-0.5 SL-505-SA7-SB-0.0-0.5 SL-557-SA7-SB-0.0-0.5 SL-558-SA7-SB-3.0-4.0

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-500-SA7-SB-0.0-0.5(RES/TOT)	MOLYBDENUM	0.257 mg/Kg	0.257U mg/Kg
SL-501-SA7-SB-0.0-0.5(RES/TOT)	MOLYBDENUM	0.336 mg/Kg	0.336U mg/Kg
SL-502-SA7-SB-0.0-0.5(RES/TOT)	MOLYBDENUM	0.404 mg/Kg	0.404U mg/Kg
SL-505-SA7-SB-0.0-0.5(RES/TOT)	MOLYBDENUM	0.309 mg/Kg	0.309U mg/Kg
SL-557-SA7-SB-0.0-0.5(RES/TOT)	MOLYBDENUM	0.240 mg/Kg	0.240U mg/Kg
SL-558-SA7-SB-3.0-4.0(RES/TOT)	MOLYBDENUM	0.377 mg/Kg	0.377U mg/Kg

Method: **8270D SIM**
Matrix: **SO**

Field Blank Sample ID	Collected Date	Analyte	Result	Associated Samples
FB-041113(RES)	4/11/2013 3:00:00 PM	1-METHYLNAPHTHALENE 2-METHYLNAPHTHALENE BIS(2-ETHYLHEXYL)PHTHALATE Diethylphthalate Di-n-butylphthalate NAPHTHALENE	0.019 ug/L 0.024 ug/L 0.082 ug/L 0.18 ug/L 0.17 ug/L 0.17 ug/L	SL-500-SA7-SB-0.0-0.5 SL-501-SA7-SB-0.0-0.5 SL-502-SA7-SB-0.0-0.5 SL-505-SA7-SB-0.0-0.5 SL-557-SA7-SB-0.0-0.5 SL-558-SA7-SB-3.0-4.0

The following samples and their listed target analytes were qualified due to contamination reported in this blank

Sample ID	Analyte	Reported Result	Modified Final Result
SL-557-SA7-SB-0.0-0.5(RES)	NAPHTHALENE	0.70 ug/Kg	1.7U ug/Kg

Surrogate Outlier Report

Lab Reporting Batch ID: PH033 **Laboratory: LL**

EDD Filename: PH033_v1 **eQAPP Name: CDM_SSFL_130621_Lan**

Method: **8082A**
Matrix: **SO**

Sample ID (Analysis Type)	*Surrogate*	*Sample % Recovery*	*% Recovery Limits*	*Affected Compounds*	*Flag*
SL-557-SA7-SB-0.0 -0.5	TETRACHLORO-M-XYLENE	133	45.00-120.00	All Target Analytes	J (all detects)
SL-558-SA7-SB-3.0 -4.0	TETRACHLORO-M-XYLENE	129	45.00-120.00	All Target Analytes	J(all detects)

Matrix Spike/Matrix Spike Duplicate Outlier Report

Lab Reporting Batch ID: PH033 **Laboratory: LL**

EDD Filename: PH033_v1 **eQAPP Name: CDM_SSFL_130621_Lan**

Method: **8270D SIM**
Matrix: **SO**

QC Sample ID (Associated Samples)	*Compound*	*MS %R*	*MSD %R*	*%R Limits*	*RPD (Limits)*	*Affected Compounds*	*Flag*
SL-558-SA7-SB-3.0-4.0MSD (SL-558-SA7-SB-3.0-4.0)	Di-n-butylphthalate	-	159	62.00-154.00	34 (30.00)	Di-n-butylphthalate	J (all detects)

Lab Duplicate Outlier Report

Lab Reporting Batch ID: PH033 **Laboratory: LL**

EDD Filename: PrepPH033 **eQAPP Name: CDM_SSFL_130621_Lan**

Method: 7471B
Matrix: SO

QC Sample ID (Associated Sample ID)	Analyte	Sample RPD	eQAPP RPD	Flag
SL-558-SA7-SB-3.0-4.0DUP (TOT) (SL-500-SA7-SB-0.0-0.5 SL -501-SA7-SB-0.0-0.5 SL -502-SA7-SB-0.0-0.5 SL -505-SA7-SB-0.0-0.5 SL -557-SA7-SB-0.0-0.5 SL -558-SA7-SB-3.0-4.0)	MERCURY	200	20.00	No Qual, OK by Difference

Reporting Limit Outliers

Lab Reporting Batch ID: PH033 **Laboratory: LL**

EDD Filename: PH033_v1 **eQAPP Name: CDM_SSFL_130621_Lan**

Method: **1613B**

Matrix: **SO**

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-500-SA7-SB-0.0-0.5	1,2,3,4,6,7,8-HPCDF	JB	2.82	5.00	PQL	ng/Kg	J (all detects)
	1,2,3,4,7,8,9-HPCDF	JB	0.343	5.00	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JB	0.421	5.00	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JB	0.949	5.00	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JB	0.688	5.00	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	0.307	5.00	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JB	0.437	5.00	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JBQ	0.184	5.00	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JB	0.520	5.00	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JBQ	0.392	5.00	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.472	5.00	PQL	ng/Kg	
	2,3,7,8-TCDD	JQ	0.0274	1.00	PQL	ng/Kg	
	2,3,7,8-TCDF	J	0.271	1.00	PQL	ng/Kg	
	OCDF	JB	4.86	10.0	PQL	ng/Kg	
SL-501-SA7-SB-0.0-0.5	1,2,3,4,6,7,8-HPCDD	JB	4.02	4.90	PQL	ng/Kg	J (all detects)
	1,2,3,4,6,7,8-HPCDF	JB	0.929	4.90	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JB	0.161	4.90	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JBQ	0.241	4.90	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JBQ	0.234	4.90	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JB	0.324	4.90	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	0.195	4.90	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JB	0.420	4.90	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JB	0.277	4.90	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JBQ	0.0848	4.90	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JB	0.360	4.90	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JB	0.242	4.90	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.373	4.90	PQL	ng/Kg	
	2,3,7,8-TCDF	JQ	0.0772	0.981	PQL	ng/Kg	
	OCDF	JB	1.49	9.81	PQL	ng/Kg	
SL-502-SA7-SB-0.0-0.5	1,2,3,4,6,7,8-HPCDF	JB	3.89	5.08	PQL	ng/Kg	J (all detects)
	1,2,3,4,7,8,9-HPCDF	JB	0.448	5.08	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JB	0.926	5.08	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JBQ	0.788	5.08	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JB	1.00	5.08	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	0.525	5.08	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JB	0.746	5.08	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JB	0.232	5.08	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JB	0.277	5.08	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JB	2.25	5.08	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JB	0.497	5.08	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	0.984	5.08	PQL	ng/Kg	
	2,3,7,8-TCDD	JQ	0.0442	1.02	PQL	ng/Kg	
	2,3,7,8-TCDF	J	0.653	1.02	PQL	ng/Kg	
	OCDF	JB	7.16	10.2	PQL	ng/Kg	
SL-505-SA7-SB-0.0-0.5	2,3,4,7,8-PECDF	JB	2.54	4.93	PQL	ng/Kg	J (all detects)

Reporting Limit Outliers

Lab Reporting Batch ID: PH033 **Laboratory: LL**

EDD Filename: PH033_v1 **eQAPP Name: CDM_SSFL_130621_Lan**

Method: 1613B

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-557-SA7-SB-0.0-0.5	1,2,3,4,6,7,8-HPCDD	JB	3.42	5.18	PQL	ng/Kg	J (all detects)
	1,2,3,4,6,7,8-HPCDF	JB	0.576	5.18	PQL	ng/Kg	
	1,2,3,4,7,8,9-HPCDF	JB	0.0644	5.18	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JB	0.0896	5.18	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JB	0.167	5.18	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	0.0717	5.18	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JB	0.142	5.18	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JB	0.0468	5.18	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JB	0.0514	5.18	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JB	0.133	5.18	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JBQ	0.0959	5.18	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JB	0.113	5.18	PQL	ng/Kg	
	2,3,7,8-TCDF	J	0.0749	1.04	PQL	ng/Kg	
	OCDF	JB	1.34	10.4	PQL	ng/Kg	
SL-558-SA7-SB-3.0-4.0	1,2,3,4,6,7,8-HPCDF	JB	3.96	5.14	PQL	ng/Kg	J (all detects)
	1,2,3,4,7,8,9-HPCDF	JB	0.438	5.14	PQL	ng/Kg	
	1,2,3,4,7,8-HxCDD	JB	0.400	5.14	PQL	ng/Kg	
	1,2,3,4,7,8-HXCDF	JBQ	0.162	5.14	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDD	JB	2.48	5.14	PQL	ng/Kg	
	1,2,3,6,7,8-HXCDF	JB	0.115	5.14	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDD	JB	1.15	5.14	PQL	ng/Kg	
	1,2,3,7,8,9-HXCDF	JB	0.103	5.14	PQL	ng/Kg	
	1,2,3,7,8-PECDD	JB	0.174	5.14	PQL	ng/Kg	
	1,2,3,7,8-PECDF	JBQ	0.0704	5.14	PQL	ng/Kg	
	2,3,4,6,7,8-HXCDF	JB	0.168	5.14	PQL	ng/Kg	
	2,3,4,7,8-PECDF	JBQ	0.0479	5.14	PQL	ng/Kg	

Method: 6010C

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-500-SA7-SB-0.0-0.5	BERYLLIUM	J	0.466	0.993	PQL	mg/Kg	J (all detects)
	BORON	J	4.56	9.93	PQL	mg/Kg	
	CADMIUM	J	0.165	0.993	PQL	mg/Kg	
	MOLYBDENUM	J	0.257	1.99	PQL	mg/Kg	
	TIN	J	3.07	9.93	PQL	mg/Kg	
	Zirconium	J	2.35	4.96	PQL	mg/Kg	
SL-501-SA7-SB-0.0-0.5	BERYLLIUM	J	0.551	0.996	PQL	mg/Kg	J (all detects)
	BORON	J	4.03	9.96	PQL	mg/Kg	
	CADMIUM	J	0.239	0.996	PQL	mg/Kg	
	MOLYBDENUM	J	0.336	1.99	PQL	mg/Kg	
	SODIUM	J	84.1	99.6	PQL	mg/Kg	
	TIN	J	2.94	9.96	PQL	mg/Kg	
	Zirconium	J	3.15	4.98	PQL	mg/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: PH033 **Laboratory: LL**

EDD Filename: PH033_v1 **eQAPP Name: CDM_SSFL_130621_Lan**

Method: 6010C

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-502-SA7-SB-0.0-0.5	ANTIMONY	J	0.580	4.10	PQL	mg/Kg	J (all detects)
	BERYLLIUM	J	0.695	1.02	PQL	mg/Kg	
	BORON	J	3.38	10.2	PQL	mg/Kg	
	CADMIUM	J	0.204	1.02	PQL	mg/Kg	
	MOLYBDENUM	J	0.404	2.05	PQL	mg/Kg	
	SODIUM	J	87.1	102	PQL	mg/Kg	
	TIN	J	3.62	10.2	PQL	mg/Kg	
	Zirconium	J	3.53	5.12	PQL	mg/Kg	
SL-505-SA7-SB-0.0-0.5	BERYLLIUM	J	0.514	1.03	PQL	mg/Kg	J (all detects)
	BORON	J	4.25	10.3	PQL	mg/Kg	
	CADMIUM	J	0.174	1.03	PQL	mg/Kg	
	MOLYBDENUM	J	0.309	2.06	PQL	mg/Kg	
	SODIUM	J	79.4	103	PQL	mg/Kg	
	TIN	J	3.15	10.3	PQL	mg/Kg	
	Zirconium	J	2.44	5.15	PQL	mg/Kg	
SL-557-SA7-SB-0.0-0.5	ANTIMONY	J	0.592	4.18	PQL	mg/Kg	J (all detects)
	BERYLLIUM	J	0.740	1.05	PQL	mg/Kg	
	BORON	J	3.19	10.5	PQL	mg/Kg	
	CADMIUM	J	0.0858	1.05	PQL	mg/Kg	
	MOLYBDENUM	J	0.240	2.09	PQL	mg/Kg	
	SODIUM	J	80.6	105	PQL	mg/Kg	
	TIN	J	3.34	10.5	PQL	mg/Kg	
	Zirconium	J	2.47	5.23	PQL	mg/Kg	
SL-558-SA7-SB-3.0-4.0	BERYLLIUM	J	0.573	1.04	PQL	mg/Kg	J (all detects)
	BORON	J	5.62	10.4	PQL	mg/Kg	
	CADMIUM	J	0.102	1.04	PQL	mg/Kg	
	MOLYBDENUM	J	0.377	2.07	PQL	mg/Kg	
	TIN	J	3.17	10.4	PQL	mg/Kg	
	Zirconium	J	2.38	5.18	PQL	mg/Kg	

Method: 6020A

Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-500-SA7-SB-0.0-0.5	SILVER	J	0.0356	0.199	PQL	mg/Kg	J (all detects)
	THALLIUM	J	0.189	0.199	PQL	mg/Kg	
SL-501-SA7-SB-0.0-0.5	SILVER	J	0.0465	0.199	PQL	mg/Kg	J (all detects)
SL-502-SA7-SB-0.0-0.5	SELENIUM	J	0.162	0.410	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0651	0.205	PQL	mg/Kg	
SL-505-SA7-SB-0.0-0.5	SELENIUM	J	0.138	0.412	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0450	0.206	PQL	mg/Kg	
SL-557-SA7-SB-0.0-0.5	SELENIUM	J	0.202	0.418	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0582	0.209	PQL	mg/Kg	
SL-558-SA7-SB-3.0-4.0	SELENIUM	J	0.152	0.415	PQL	mg/Kg	J (all detects)
	SILVER	J	0.0854	0.207	PQL	mg/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: PH033 **Laboratory: LL**

EDD Filename: PH033_v1 **eQAPP Name: CDM_SSFL_130621_Lan**

Method: 7471B
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-500-SA7-SB-0.0-0.5	MERCURY	J	0.0178	0.0192	PQL	mg/Kg	J (all detects)
SL-502-SA7-SB-0.0-0.5	MERCURY	J	0.0196	0.0201	PQL	mg/Kg	J (all detects)

Method: 8015M
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-502-SA7-SB-0.0-0.5	EFH (C15-C20)	J	2.1	5.2	PQL	mg/Kg	J (all detects)
SL-505-SA7-SB-0.0-0.5	EFH (C15-C20)	J	2.3	5.1	PQL	mg/Kg	J (all detects)

Method: 8082A
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-502-SA7-SB-0.0-0.5	Aroclor 5460	J	24	34	PQL	ug/Kg	J (all detects)

Method: 8270D SIM
Matrix: SO

SampleID	Analyte	Lab Qual	Result	Reporting Limit	RL Type	Units	Flag
SL-500-SA7-SB-0.0-0.5	BENZO(A)ANTHRACENE	J	0.90	1.7	PQL	ug/Kg	J (all detects)
	BENZO(A)PYRENE	J	1.2	1.7	PQL	ug/Kg	
	BENZO(G,H,I)PERYLENE	J	0.86	1.7	PQL	ug/Kg	
	BIS(2-ETHYLHEXYL)PHTHALATE	J	7.2	18	PQL	ug/Kg	
	INDENO(1,2,3-CD)PYRENE	J	0.84	1.7	PQL	ug/Kg	
	PHENANTHRENE	J	1.1	1.7	PQL	ug/Kg	
SL-501-SA7-SB-0.0-0.5	ANTHRACENE	J	0.83	1.7	PQL	ug/Kg	J (all detects)
	BENZO(E)PYRENE	J	4.8	17	PQL	ug/Kg	
	DIBENZO(A,H)ANTHRACENE	J	0.99	1.7	PQL	ug/Kg	
SL-502-SA7-SB-0.0-0.5	2-METHYLNAPHTHALENE	J	0.75	1.7	PQL	ug/Kg	J (all detects)
	ANTHRACENE	J	0.92	1.7	PQL	ug/Kg	
	BIS(2-ETHYLHEXYL)PHTHALATE	J	12	19	PQL	ug/Kg	
	NAPHTHALENE	J	1.2	1.7	PQL	ug/Kg	
SL-505-SA7-SB-0.0-0.5	1-METHYLNAPHTHALENE	J	0.98	1.7	PQL	ug/Kg	J (all detects)
	2-METHYLNAPHTHALENE	J	1.6	1.7	PQL	ug/Kg	
	ANTHRACENE	J	0.71	1.7	PQL	ug/Kg	
	BENZO(E)PYRENE	J	5.4	17	PQL	ug/Kg	
	BIS(2-ETHYLHEXYL)PHTHALATE	J	13	18	PQL	ug/Kg	
	DIBENZO(A,H)ANTHRACENE	J	1.3	1.7	PQL	ug/Kg	
	FLUORENE	J	1.4	1.7	PQL	ug/Kg	

Reporting Limit Outliers

Lab Reporting Batch ID: PH033 **Laboratory: LL**

EDD Filename: PH033_v1 **eQAPP Name: CDM_SSFL_130621_Lan**

Method: **8270D SIM**

Matrix: **SO**

SampleID	*Analyte*	*Lab Qual*	*Result*	*Reporting Limit*	*RL Type*	*Units*	*Flag*
SL-557-SA7-SB-0.0-0.5	BENZO(B)FLUORANTHENE	J	1.2	1.7	PQL	ug/Kg	J (all detects)
	BIS(2-ETHYLHEXYL)PHTHALATE	J	7.3	19	PQL	ug/Kg	
	CHRYSENE	J	0.97	1.7	PQL	ug/Kg	
	FLUORANTHENE	J	1.3	1.7	PQL	ug/Kg	
	NAPHTHALENE	J	0.70	1.7	PQL	ug/Kg	
	PHENANTHRENE	J	0.80	1.7	PQL	ug/Kg	
	PYRENE	J	1.0	1.7	PQL	ug/Kg	
SL-558-SA7-SB-3.0-4.0	CHRYSENE	J	0.47	1.7	PQL	ug/Kg	J (all detects)

LDC #: 29836G4

SDG #: PH033

Laboratory: Eurofins Lancaster Laboratories

VALIDATION COMPLETENESS WORKSHEET

ADR

Date: 6/11/13

Page: 1 of 1

Reviewer: CA

2nd Reviewer: [illegible]

METHOD: Metals (EPA SW 846 Method 6010C/6020A/7000)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	—	Sampling dates: 4/17/13
II.	ICP/MS Tune	—	
III.	Calibration	—	
IV.	Blanks	A	
V.	ICP Interference Check Sample (ICS) Analysis	—	
VI.	Matrix Spike Analysis	N	MS/D (Hg only: 6010/6020: from PH036)
VII.	Duplicate Sample Analysis	N	Dup ↓ Hg - OK by Difference, No Qual
VIII.	Laboratory Control Samples (LCS)	A	LCS
IX.	Internal Standard (ICP-MS)	N	
X.	Furnace Atomic Absorption QC	N	
XI.	ICP Serial Dilution	A	
XII.	Sample Result Verification	N	
XIII.	Overall Assessment of Data	N	
XIV.	Field Duplicates	—	
XV	Field Blanks	SW	FB= FB-041113 (PH029) EB=EB-041813 (PH034)

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples: Soil

1 76	SL-558-SA7-SB-3.0-4.0	11		21		31	
2 77	SL-557-SA7-SB-0.0-0.5	12		22		32	
3 78	SL-505-SA7-SB-0.0-0.5	13		23		33	
4 79	SL-502-SA7-SB-0.0-0.5	14		24		34	
5 80	SL-501-SA7-SB-0.0-0.5	15		25		35	
6 81	SL-500-SA7-SB-0.0-0.5	16		26		36	
7	(#1) MS (Hg only)	17		27		37	
8	MSD	18		28		38	
9	Dup	19		29		39	
10		20		30		40	

Notes:

LDC #: 29836G4

VALIDATION FINDINGS WORKSHEET
Field Blanks

Page: 1 of 1
Reviewer: a
2nd Reviewer: n

METHOD: Trace Metals (EPA SW846 6010B/7000)

Blank units: mg/L **Associated sample units:** mg/Kg Reason: F
Sampling date: EB=4/18/13 FB=4/11/13 Soil factor applied 100x
Field blank type: (circle one) Field Blank / Rinsate / Other: Associated Samples: All Soil

Analyte	Blank ID	Blank ID	Sample Identification										
	EB-041813	FB-041113	Action Limit	1	2	3	4	5	6				
Cu		0.0036	1.8										
Mo	0.0036	0.0036	1.8	0.38	0.24	0.31	0.40	0.34	0.26				
Sr	0.000028		0.014										

CIRCLED RESULTS WERE NOT QUALIFIED. ALL RESULTS NOT CIRCLED WERE QUALIFIED BY THE FOLLOWING STATEMENT:
Samples with analyte concentrations within five times the associated field blank concentration are listed above, these sample results were qualified as not detected, "U".

Attachment I

Sample ID Cross Reference and Data Review Level

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
18-Apr-2013	SL-531-SA7-SB-0.0-0.5	7028427	N	3050B	6010C	III
18-Apr-2013	SL-531-SA7-SB-0.0-0.5	7028427	N	3050B	6020A	III
18-Apr-2013	SL-531-SA7-SB-0.0-0.5	7028427	N	3546	8015M	III
18-Apr-2013	SL-531-SA7-SB-0.0-0.5	7028427	N	3546	8082A	III
18-Apr-2013	SL-531-SA7-SB-0.0-0.5	7028427	N	3546	8270D SIM	III
18-Apr-2013	SL-531-SA7-SB-0.0-0.5	7028427	N	METHOD	1613B	III
18-Apr-2013	SL-531-SA7-SB-0.0-0.5	7028427	N	METHOD	7471B	III
18-Apr-2013	SL-532-SA7-SB-0.0-0.5	7028428	N	3050B	6010C	III
18-Apr-2013	SL-532-SA7-SB-0.0-0.5	7028428	N	3050B	6020A	III
18-Apr-2013	SL-532-SA7-SB-0.0-0.5	7028428	N	3546	8015M	III
18-Apr-2013	SL-532-SA7-SB-0.0-0.5	7028428	N	3546	8082A	III
18-Apr-2013	SL-532-SA7-SB-0.0-0.5	7028428	N	3546	8270D SIM	III
18-Apr-2013	SL-532-SA7-SB-0.0-0.5	7028428	N	METHOD	1613B	III
18-Apr-2013	SL-532-SA7-SB-0.0-0.5	7028428	N	METHOD	7471B	III
18-Apr-2013	SL-533-SA7-SB-0.0-0.5	7028429	N	3050B	6010C	III
18-Apr-2013	SL-533-SA7-SB-0.0-0.5	7028429	N	3050B	6020A	III
18-Apr-2013	SL-533-SA7-SB-0.0-0.5	7028429	N	3546	8015M	III
18-Apr-2013	SL-533-SA7-SB-0.0-0.5	7028429	N	3546	8082A	III
18-Apr-2013	SL-533-SA7-SB-0.0-0.5	7028429	N	3546	8270D SIM	III
18-Apr-2013	SL-533-SA7-SB-0.0-0.5	7028429	N	METHOD	1613B	III
18-Apr-2013	SL-533-SA7-SB-0.0-0.5	7028429	N	METHOD	7471B	III
18-Apr-2013	SL-530-SA7-SB-0.0-0.5	7028430	N	3050B	6010C	III
18-Apr-2013	SL-530-SA7-SB-0.0-0.5	7028430	N	3050B	6020A	III
18-Apr-2013	SL-530-SA7-SB-0.0-0.5	7028430	N	3546	8015M	III
18-Apr-2013	SL-530-SA7-SB-0.0-0.5	7028430	N	3546	8082A	III
18-Apr-2013	SL-530-SA7-SB-0.0-0.5	7028430	N	3546	8270D SIM	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Sample Cross Reference

Date Collected	Field Sample ID	Lab Sample ID	Sample Type	Prep Method	Analytical Method	Review Level
18-Apr-2013	SL-530-SA7-SB-0.0-0.5	7028430	N	METHOD	1613B	III
18-Apr-2013	SL-530-SA7-SB-0.0-0.5	7028430	N	METHOD	7471B	III
18-Apr-2013	EB-041813	7028431	EB	3005A	6010C	III
18-Apr-2013	EB-041813	7028431	EB	3510C	8015M	III
18-Apr-2013	EB-041813	7028431	EB	3510C	8081B	III
18-Apr-2013	EB-041813	7028431	EB	3510C	8082A	III
18-Apr-2013	EB-041813	7028431	EB	3510C	8270D SIM	III
18-Apr-2013	EB-041813	7028431	EB	5030B	8015M	III
18-Apr-2013	EB-041813	7028431	EB	M3010A	6020A	III
18-Apr-2013	EB-041813	7028431	EB	METHOD	1613B	III
18-Apr-2013	EB-041813	7028431	EB	METHOD	7470A	III

III = EPA Level 3 Data Review *N = Normal Sample* *TB = Trip Blank* *MS = Matrix Spike*
IV = EPA Level 4 Data Validation *FD = Field Duplicate* *FB = Field Blank* *MSD = Matrix Spike Duplicate*

Attachment II

Overall Data Qualification Summary

Data Qualifier Summary

Lab Reporting Batch ID: PH034 **Laboratory: LL**

EDD Filename: PrepPH034 **eQAPP Name: CDM_SSFL_130621_Lan**

Method Category: **METALS**

Method: **6010C** ***Matrix:*** **AQ**

Sample ID: **EB-041813** ***Collected:*** **4/18/2013 3:00:00** ***Analysis Type:*** **RES/TOT** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MOLYBDENUM	0.0036	J	0.0029	MDL	0.0200	PQL	mg/L	U	B

Method Category: **METALS**

Method: **6010C** ***Matrix:*** **SO**

Sample ID: **SL-530-SA7-SB-0.0-0.5** ***Collected:*** **4/18/2013 2:10:00** ***Analysis Type:*** **REA/TOT** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	4.04	U	0.505	MDL	4.04	PQL	mg/Kg	UJ	Q
BERYLLIUM	0.395	J	0.0676	MDL	1.01	PQL	mg/Kg	J	Z
BORON	3.08	J	0.838	MDL	10.1	PQL	mg/Kg	U	B
CADMIUM	0.194	J	0.0333	MDL	1.01	PQL	mg/Kg	J	Z
LEAD	25.2		0.475	MDL	3.03	PQL	mg/Kg	J	E, Q, E
POTASSIUM	3640		13.6	MDL	101	PQL	mg/Kg	J	Q
SODIUM	57.4	J	16.9	MDL	101	PQL	mg/Kg	J	Z
TIN	2.98	J	0.222	MDL	10.1	PQL	mg/Kg	U	B
Zirconium	1.59	J	0.838	MDL	5.05	PQL	mg/Kg	J	Z

Sample ID: **SL-531-SA7-SB-0.0-0.5** ***Collected:*** **4/18/2013 8:55:00** ***Analysis Type:*** **REA/TOT** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	3.97	U	0.496	MDL	3.97	PQL	mg/Kg	UJ	Q
ARSENIC	3.82	J	0.328	MDL	3.97	PQL	mg/Kg	J	Z
BERYLLIUM	0.463	J	0.0665	MDL	0.993	PQL	mg/Kg	J	Z
BORON	2.91	J	0.824	MDL	9.93	PQL	mg/Kg	U	B
CADMIUM	0.139	J	0.0328	MDL	0.993	PQL	mg/Kg	J	Z
LEAD	7.89		0.467	MDL	2.98	PQL	mg/Kg	J	E, Q, E
POTASSIUM	4180		13.4	MDL	99.3	PQL	mg/Kg	J	Q
SODIUM	56.5	J	16.6	MDL	99.3	PQL	mg/Kg	J	Z
TIN	2.97	J	0.218	MDL	9.93	PQL	mg/Kg	U	B
Zirconium	1.97	J	0.824	MDL	4.96	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3 Subarea 7

Data Qualifier Summary

Lab Reporting Batch ID: PH034 **Laboratory: LL**

EDD Filename: PrepPH034 **eQAPP Name: CDM_SSFL_130621_Lan**

Method Category: METALS

Method: 6010C **Matrix: SO**

Sample ID: SL-532-SA7-SB-0.0-0.5 *Collected:* 4/18/2013 9:45:00 *Analysis Type:* REA/TOT *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	3.99	U	0.499	MDL	3.99	PQL	mg/Kg	UJ	Q
ARSENIC	3.93	J	0.329	MDL	3.99	PQL	mg/Kg	J	Z
BERYLLIUM	0.382	J	0.0669	MDL	0.998	PQL	mg/Kg	J	Z
BORON	1.98	J	0.829	MDL	9.98	PQL	mg/Kg	U	B
CADMIUM	0.106	J	0.0329	MDL	0.998	PQL	mg/Kg	J	Z
LEAD	5.40		0.469	MDL	3.00	PQL	mg/Kg	J	E, Q, E
POTASSIUM	3290		13.5	MDL	99.8	PQL	mg/Kg	J	Q
SODIUM	53.0	J	16.7	MDL	99.8	PQL	mg/Kg	J	Z
TIN	3.04	J	0.220	MDL	9.98	PQL	mg/Kg	U	B
Zirconium	1.58	J	0.829	MDL	4.99	PQL	mg/Kg	J	Z

Sample ID: SL-533-SA7-SB-0.0-0.5 *Collected:* 4/18/2013 11:25:00 *Analysis Type:* REA/TOT *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.770	J	0.499	MDL	3.99	PQL	mg/Kg	J	Z, Q
BERYLLIUM	0.669	J	0.0668	MDL	0.997	PQL	mg/Kg	J	Z
BORON	2.64	J	0.828	MDL	9.97	PQL	mg/Kg	U	B
CADMIUM	0.0439	J	0.0329	MDL	0.997	PQL	mg/Kg	J	Z
LEAD	10.2		0.469	MDL	2.99	PQL	mg/Kg	J	E, Q, E
MOLYBDENUM	0.423	J	0.170	MDL	1.99	PQL	mg/Kg	U	F, F
POTASSIUM	3860		13.5	MDL	99.7	PQL	mg/Kg	J	Q
SODIUM	63.6	J	16.7	MDL	99.7	PQL	mg/Kg	J	Z
TIN	3.36	J	0.219	MDL	9.97	PQL	mg/Kg	U	B
Zirconium	3.18	J	0.828	MDL	4.99	PQL	mg/Kg	J	Z

Method Category: METALS

Method: 6020A **Matrix: AQ**

Sample ID: EB-041813 *Collected:* 4/18/2013 3:00:00 *Analysis Type:* REA2/TOT *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
STRONTIUM	0.00028	J	0.00022	MDL	0.0020	PQL	mg/L	J	Z

* denotes a non-reportable result

Project Name and Number: 1204-002-001-AL - SSFL Area IV Phase 3 Subarea 7

Data Qualifier Summary

Lab Reporting Batch ID: PH034 **Laboratory: LL**

EDD Filename: PrepPH034 **eQAPP Name: CDM_SSFL_130621_Lan**

Method Category: METALS
Method: 6020A **Matrix:** AQ

Method Category: METALS
Method: 6020A **Matrix:** SO

Sample ID: SL-530-SA7-SB-0.0-0.5 *Collected:* 4/18/2013 2:10:00 *Analysis Type:* RES/TOT *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SILVER	0.0245	J	0.0202	MDL	0.202	PQL	mg/Kg	J	Z
STRONTIUM	10.8		0.0343	MDL	0.404	PQL	mg/Kg	J	Q

Sample ID: SL-531-SA7-SB-0.0-0.5 *Collected:* 4/18/2013 8:55:00 *Analysis Type:* RES/TOT *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
THALLIUM	0.198	J	0.0298	MDL	0.199	PQL	mg/Kg	J	Z

Sample ID: SL-533-SA7-SB-0.0-0.5 *Collected:* 4/18/2013 11:25:00 *Analysis Type:* REA/TOT *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SELENIUM	0.231	J	0.0997	MDL	0.399	PQL	mg/Kg	J	Z

Sample ID: SL-533-SA7-SB-0.0-0.5 *Collected:* 4/18/2013 11:25:00 *Analysis Type:* RES/TOT *Dilution:* 2

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
SILVER	0.0368	J	0.0199	MDL	0.199	PQL	mg/Kg	J	Z

Method Category: METALS
Method: 7471B **Matrix:** SO

Sample ID: SL-530-SA7-SB-0.0-0.5 *Collected:* 4/18/2013 2:10:00 *Analysis Type:* RES/TOT *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0151	J	0.0105	MDL	0.0202	PQL	mg/Kg	J	Z

Sample ID: SL-531-SA7-SB-0.0-0.5 *Collected:* 4/18/2013 8:55:00 *Analysis Type:* RES/TOT *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0171	J	0.0106	MDL	0.0204	PQL	mg/Kg	J	Z

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: PH034 **Laboratory: LL**

EDD Filename: PrepPH034 **eQAPP Name: CDM_SSFL_130621_Lan**

Method Category: METALS
Method: 7471B **Matrix: SO**

Sample ID: SL-532-SA7-SB-0.0-0.5 *Collected:* 4/18/2013 9:45:00 *Analysis Type:* RES/TOT *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MERCURY	0.0144	J	0.010	MDL	0.0193	PQL	mg/Kg	J	Z

Method Category: SVOA
Method: 1613B **Matrix: AQ**

Sample ID: EB-041813 *Collected:* 4/18/2013 3:00:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDD	0.576	JBQ	0.189	MDL	9.71	PQL	pg/L	U	B
1,2,3,4,6,7,8-HPCDF	0.466	JB	0.103	MDL	9.71	PQL	pg/L	U	B
1,2,3,4,7,8,9-HPCDF	0.358	JBQ	0.122	MDL	9.71	PQL	pg/L	U	B
1,2,3,4,7,8-HXCDF	0.235	JQ	0.103	MDL	9.71	PQL	pg/L	J	Z
1,2,3,6,7,8-HXCDD	0.206	JBQ	0.175	MDL	9.71	PQL	pg/L	U	B
1,2,3,6,7,8-HXCDF	0.191	JBQ	0.102	MDL	9.71	PQL	pg/L	U	B
1,2,3,7,8,9-HXCDF	0.137	JBQ	0.0883	MDL	9.71	PQL	pg/L	U	B
1,2,3,7,8-PECDD	0.420	JBQ	0.232	MDL	9.71	PQL	pg/L	U	B
1,2,3,7,8-PECDF	0.761	JBQ	0.144	MDL	9.71	PQL	pg/L	U	B
2,3,4,6,7,8-HXCDF	0.201	JBQ	0.0943	MDL	9.71	PQL	pg/L	U	B
2,3,4,7,8-PECDF	0.194	JBQ	0.134	MDL	9.71	PQL	pg/L	U	B
OCDD	1.20	JB	0.416	MDL	19.4	PQL	pg/L	U	B
OCDF	1.24	JBQ	0.323	MDL	19.4	PQL	pg/L	U	B

Method Category: SVOA
Method: 1613B **Matrix: SO**

Sample ID: SL-530-SA7-SB-0.0-0.5 *Collected:* 4/18/2013 2:10:00 *Analysis Type:* RES *Dilution:* 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,3,4,6,7,8-HPCDF	1.37	JB	0.0168	MDL	5.09	PQL	ng/Kg	J	Z
1,2,3,4,7,8,9-HPCDF	0.132	JB	0.0234	MDL	5.09	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HxCDD	0.266	JB	0.0310	MDL	5.09	PQL	ng/Kg	J	Z
1,2,3,4,7,8-HXCDF	0.220	JB	0.0281	MDL	5.09	PQL	ng/Kg	U	B

* denotes a non-reportable result